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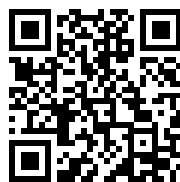
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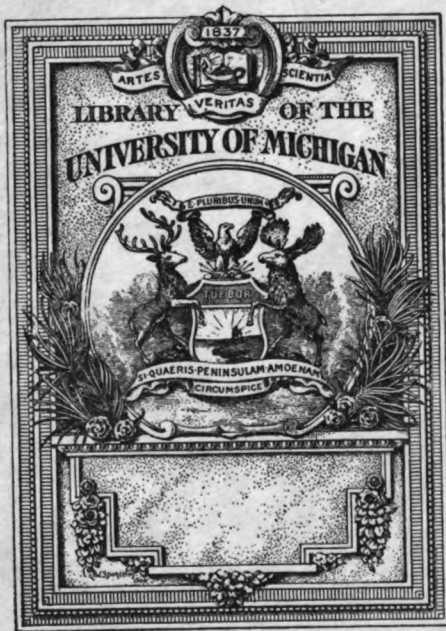
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OF
MENTAL SCIENCE.

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VOL. LI.



LONDON :

J. & A. CHURCHILL,
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MDCCCIV.

"In adopting our title of the *Journal of Mental Science*, published by authority of the *Medico-Psychological Association*, we profess that we cultivate in our pages mental science of a particular kind, namely, such mental science as appertains to medical men who are engaged in the treatment of the insane. But it has been objected that the term mental science is inapplicable, and that the term mental physiology or mental pathology, or psychology, or psychiatry (a term much affected by our German brethren), would have been more correct and appropriate; and that, moreover, we do not deal in mental science, which is properly the sphere of the aspiring metaphysical intellect. If mental science is strictly synonymous with metaphysics, these objections are certainly valid; for although we do not eschew metaphysical discussion, the aim of this JOURNAL is certainly bent upon more attainable objects than the pursuit of those recondite inquiries which have occupied the most ambitious intellects from the time of Plato to the present, with so much labour and so little result. But while we admit that metaphysics may be called one department of mental science, we maintain that mental physiology and mental pathology are also mental science under a different aspect. While metaphysics may be called speculative mental science, mental physiology and pathology, with their vast range of inquiry into insanity, education, crime, and all things which tend to preserve mental health, or to produce mental disease, are not less questions of mental science in its practical, that is in its sociological point of view. If it were not unjust to high mathematics to compare it in any way with abstruse metaphysics, it would illustrate our meaning to say that our practical mental science would fairly bear the same relation to the mental science of the metaphysicians as applied mathematics bears to the pure science. In both instances the aim of the pure science is the attainment of abstract truth; its utility, however, frequently going no further than to serve as a gymnasium for the intellect. In both instances the mixed science aims at, and, to a certain extent, attains immediate practical results of the greatest utility to the welfare of mankind; we therefore maintain that our JOURNAL is not inaptly called the *Journal of Mental Science*, although the science may only attempt to deal with sociological and medical inquiries, relating either to the preservation of the health of the mind or to the amelioration or cure of its diseases; and although not soaring to the height of abstruse metaphysics, we only aim at such metaphysical knowledge as may be available to our purposes, as the mechanician uses the formularies of mathematics. This is our view of the kind of mental science which physicians engaged in the grave responsibility of caring for the mental health of their fellow-men may, in all modesty, pretend to cultivate; and while we cannot doubt that all additions to our certain knowledge in the speculative department of the science will be great gain, the necessities of duty and of danger must ever compel us to pursue that knowledge which is to be obtained in the practical departments of science with the earnestness of real workmen. The captain of a ship would be none the worse for being well acquainted with the higher branches of astronomical science, but it is the practical part of that science as it is applicable to navigation which he is compelled to study."—*Sir J. C. Bucknill, M.D., F.R.S.*

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 1881. Benedikt, Prof. M., Franciskaner Platz 5, Vienna.
 1900. Blumer, G. Alder, M.D., L.R.C.P. Edin., Butler Hospital, Providence, U.S.A. (*Ord. Mem.*, 1890.)
 1900. Bresler, Johannes, M.D., Kraschnitz, Schlesien, Germany. (*Corr. Mem.*, 1896.)
 1881. Brosius, Dr., Bendorf-Sayn, near Coblenz, Germany.
 1876. Browne, Sir J. Crichton-, M.D. Edin., F.R.S., Lord Chancellor's Visitor, New Law Courts, Strand, W.C. (*PRESIDENT*, 1878.)
 1902. Brush, Edward N., M.D., Sheppard and Enoch Pratt Hospital, Towson, Maryland, U.S.A.
 1887. Chapin, John B., M.D., Pennsylvania Hospital for the Insane, Philadelphia, U.S.A.
 1902. Coupland, Sidney, M.D., F.R.C.P. Lond., Commissioner in Lunacy, 16, Queen Anne Street, Cavendish Square, London, W.
 1872. } Courtenay, E. Maziere, A.B., M.B., C.M.T.C.D., M.D., Inspector of
 1891. } Lunatics in Ireland, Lunacy Office, Dublin Castle. (*Secretary for Ireland*, 1876-87.)
 1879. Echeverria, M. G., M.D.
 1892. Féré, Dr. Charles, 22, Avenue Bugeaud, XVI^e Arrt., Paris.
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 1868. } Gairdner, Sir William T., K.C.B., M.D. Edin., F.R.S., formerly Professor
 1888. } of Medicine in the University of Glasgow, Physician to H.M. the King in Scotland, 32, George Square, Edinburgh. (*PRESIDENT*, 1882.)
 1866. Hine, George T., F.R.I.B.A., 35, Parliament Street, London, S.W.
 1881. Hughes, C. H., M.D., St. Louis, Missouri, United States.

1866. Laehr, H., M.D., Schweizer Hof, bei Berliu, Editor of the *Zeitschrift für Psychiatrie*.
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1900. Ritti, Ant., Maison Nationale de Charenton, St. Maurice, Paris. (*Corr. Mem.*, 1890.)
1887. Schüle, Heinrich, M.D., Illenan, Baden, Germany.
1880. Sibbald, Sir John, M.D.Edin., F.R.C.P.Edin., M.R.C.S.Eng., Commissioner in Lunacy for Scotland; 18, Great King Street, Edinburgh. (*Editor of Journal*, 1871-2.)
1888. Stearns, H. P., M.D., The Retreat, Hartford, Conn., U.S.A.
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1900. Abbott, Henry Kingsmill, M.D.Dublin, D.P.H.Ireland. Hants County Asylum, Fareham.
1891. Adair, Thomas Stewart, M.D., C.M.Edin., Storthes Hall Asylum, Kirkburton, near Huddersfield.
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1890. Agar, S. H., sen., L.R.C.P.I., Glendossil, Henley-in-Arden.
1886. Agar, S. Hollingsworth, jun., B.A.Cantab., M.R.C.S., Glendossil, Henley-in-Arden.
1901. Ahern, John M., M.B., B.Ch., L.R.C.P.&S.I., Assistant Medical Officer, H.M. Prison, Liverpool.
1869. Aldridge, Chas., M.D.Aber., L.R.C.P., Plympton House, Plympton, Devon.
1899. Alexander, Hugh de Maine, M.D., The Hospital, Royal Asylum, Aberdeen.
1890. Alexander, Robert Reid, M.D.Aber., Medical Superintendent, Hanwell Lunatic Asylum, Hanwell, London, W.
1882. Alliott, A. J., M.D., Rosendal, Sevenoaks.
1899. Allmann, Dorah Elizabeth, M.B., B.Ch., B.A.O.R.U.I., Assistant Medical Officer, District Asylum, Armagh.
1885. Amsden, Geo., M.B., Medical Supt., County Asylum, Brentwood, Essex.
1900. Anderson, John Sewell, M.R.C.S., L.R.C.P., Hull City Asylum, Willerby, near Hull.
1901. Anderson, William C., M.B., C.M., Fife and Kinross District Asylum, Cupar, Fife.
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1903. Bailey, William Henry, M.B., M.R.C.S., L.S.A., Featherstone Hall, Southall, Midd.
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1868. Baker, John, M.D., Deputy Superintendent, State Asylum, Broadmoor, Berks.
1876. Baker, Robert, M.D.Edin., 2, The Crescent, Blossom Street, York. (PRESIDENT, 1892.)
1904. Barham, Guy Foster, M.B., B.A., B.C., M.R.C.S., L.R.C.P., Claybury Asylum, Woodford Bridge, Essex.
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1895. Barraclough, Herbert, M.B., The Asylum, Porirua, nr. Wellington, New Zealand.
1878. Barton, James Edward, L.R.C.P.Edin., L.M., M.R.C.S., Medical Superintendent, Surrey County Lunatic Asylum, Brookwood, Woking.
1904. Barton, Samuel J., M.D.Dubl., Physician to the Norfolk and Norwich Hospital, Surrey Street, Norwich.
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1902. Baugh, Leonard D. H., M.B., C.M., Gartloch Asylum, Gartcosh, Glasgow, N.B.
1864. Bayley, Joseph, M.R.C.S., Medical Superintendent, St. Andrew's Hospital, Northampton.
1893. Bayley, Joseph Herbert, M.B., C.M.Edin., Assistant Medical Officer, St. Andrew's Hospital, Northampton.
1874. Beach, Fletcher, M.B., F.R.C.P.Lond., formerly Medical Superintendent, Darenth Asylum, Dartford; Winchester House, Kingston Hill, Surrey, and 79, Wimpole Street, W. (*General Secretary*, 1889—1896. *PRESIDENT*, 1900—1901.)
1892. Beadles, Cecil F., M.R.C.S., L.R.C.P., Assistant Medical Officer, Colney Hatch Asylum.
1902. Beale-Browne, Thomas Richard, M.R.C.S.Eng., L.R.C.P.Lond., Berrywood, Northampton.
1896. Beamish, George, L.R.C.S.I., L.R.C.P.E., L.M., Medical Officer's House, H.M. Prison, Wandsworth, London, S.W.
1899. Beresford, Edwyn H., M.R.C.S. & M.R.C.P.Lond., Tooting Bec Asylum, Tooting, S.W.
1894. Bernard, Walter, M.D., F.R.C.P.I., M.R.C.S.Eng., 14, Queen Street, Londonderry.
1894. Blachford, James Vincent, M.D., B.S.Durham, Assistant Medical Officer, Bristol Asylum, Fishponds, near Bristol.
1898. Blair, David, M.A., M.D., C.M., County Asylum, Lancaster.
1883. Blair, Robert, M.D., Braefort, Crookston, Paisley.
1901. Blake, Thomas Frederick Hillyer, L.R.C.P.&S.Edin., Wakefield Road, Ackworth Moor Top, near Pontefract, Yorks.
1904. Blakesley, Henry John, F.R.C.S.Eng., L.R.C.P.Edin., 56, London Road, Leicester.
1902. Blakiston, Frederick C., M.R.C.S., L.R.C.P., 6, Leigham Street, Plymouth, Devon.
1857. Blandford, George Fielding, M.D.Oxon., F.R.C.P.Lond., 48, Wimpole Street, W. (*PRESIDENT*, 1877.)
1897. Blandford, Joseph John Guthrie, B.A., D.P.H.Camb., M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, County Asylum, Whittingham, Preston, Lancs.
1900. Bolton, Joseph Shaw, M.D., B.S., B.Sc.Lond., County Asylum, Rainhill, Liverpool.
1892. Bond, Charles Hubert, D.Sc., M.D., Ch.M.Edin., Medical Superintendent, The Colony, Ewell, Surrey.
1877. Bower, David, M.D.Aber., Springfield House, Bedford.
1877. Bowes, John Ireland, M.R.C.S.Eng., L.S.A., Medical Superintendent, County Asylum, Devizes, Wilts.
1893. Bowes, William Henry, M.D.Lond., Assistant Medical Officer, Plymouth Borough Asylum, Ivybridge, Devon.
1900. Bowles, Alfred, M.R.C.S., L.R.C.P., 10, South Cliff, Eastbourne.
1896. Boycott, Arthur N., M.D.Lond., M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent, Herts County Asylum, Hill End, St. Albans, Herts.
1898. Boyle, A. Helen A., M.D., 3, Palmeira Terrace, Hove, Brighton.
1883. Boys, A. H., L.R.C.P.Edin., Chequer Lawn, St. Albans.
1891. Braine-Hartnell, George, M. P., L.R.C.P.Lond., M.R.C.S.Eng., Medical Superintendent, County and City Asylum, Powick, Worcester.
1893. Bramwell, John Milne, M.B., C.M.Edin., 38, Wimpole Street, W.
1904. Branthwaite, Robert Welsh, M.D. (Inspector under the Inebriates Act), Home Office Chambers, 55, Whitehall, S.W.
1881. Brayn, R., L.R.C.P.Lond., Medical Superintendent, Broadmoor Asylum, Crowthorne, Berks.

1895. **Briscoe, John Frederick**, M.R.C.S.Eng., Resident Medical Superintendent, Westbrooke House Asylum, Alton, Hants.
1892. **Bristowe, Hubert Carpenter**, M.D.Lond., Wrington, R.S.O., Somerset.
1903. **Broom, Henry**, M.B., C.M.Glas., County Asylum, Dorchester, Dorset.
1904. **Brown, Josephine**, M.B.Lond., Bracebridge Asylum, Lincoln.
1893. **Bruce, Lewis C.**, M.D.Edin., Druid Park, Murthly, N.B.
- **Brushfield, Thomas N.**, M.D.St. And., The Cliff, Budleigh Salterton, Devon.
1896. **Bubb, William**, M.R.C.S., L.R.C.P.Lond., Second Assistant Medical Officer, Worcester County Asylum, Powick, near Worcester.
1892. **Bullen, Frederick St. John**, M.R.C.S.Eng., 12, Pembroke Road, Clifton, Bristol.
1869. **Burman, Wilkie J.**, M.D.Edin., Ramsbury, Hungerford, Berks.
1904. **Burrell, Arthur Ambrose**, M.B., B.Ch., St. Edmundsbury, Lucan, Co. Dublin.
1891. **Caldecott, Charles**, M.B., B.S.Lond., M.R.C.S., Medical Superintendent, Earlswood Asylum, Redhill, Surrey.
1889. **Callcott, James T.**, M.D., Medical Superintendent, Borough Asylum, Newcastle-on-Tyne.
1874. **Cameron, John**, M.D.Edin., Medical Superintendent, Argyll and Bute Asylum, Lochgilphead.
1902. **Campariolo, Paul Clem**, M.B., C.M.Ed., Junior Assistant Medical Officer, County Asylum, Melton, Suffolk.
1894. **Campbell, Alfred Walter**, M.D.Edin., Pathologist, County Asylum, Bainhill, near Prescott, Lancashire.
1880. **Campbell, Patrick E.**, M.B., C.M., Senior Assistant Medical Officer, District Asylum, Caterham.
1897. **Campbell, Robert Brown**, M.B., C.M.Edin., Medical Superintendent, Inverness District Asylum, Inverness.
1897. **Cappe, Herbert Nelson**, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, Surrey County Asylum, Brookwood.
1891. **Carswell, John**, L.R.C.P.Edin., L.F.P.S.Glasg., Certifying Medical Officer, Barony Parish, 5, Royal Crescent, Glasgow.
1896. **Cashman, James P.**, M.B., B.Ch., B.A.O.Royal Univ. Irel., Assistant Medical Officer, Cork District Asylum.
1902. **Cassells, Alexander Henderson**, M.B., Ch.B.Glasg., Senior Assistant Medical Officer, District Asylum, Sunnyside, Montrose.
1874. **Cassidy, D. M.**, M.D., C.M.McGill Coll., Montreal, D.Sc. (Public Health) Edin., F.R.C.S.Edin., Medical Superintendent, County Asylum, Lancaster.
1888. **Chambers, James**, M.D., The Priory, Roehampton.
1866. **Chapman, Thomas Algernon**, M.D.Glas., L.R.C.S.Edin., Betula, Reigate.
1880. **Christie, J. W. Stirling**, L.R.C.P.Edin., Medical Superintendent, County Asylum, Stafford.
1878. **Clapham, Wm. Crochley S.**, M.D., M.R.C.P., The Gables, Mayfield, Sussex.
1879. **Clarke, Henry**, M.D.Durh., L.R.C.P.Lond., H.M. Prison, Wakefield.
1901. **Cleland, William Lennox**, M.B., B.Ch.Edin., Park Side, Adelaide, South Australia.
1862. **Clouston, T. S.**, M.D.Edin., F.R.C.P.Edin., F.R.S.E., Physician Superintendent, Royal Asylum, Morningside, Edinburgh. (*Editor of Journal*, 1873—1881.) (PRESIDENT, 1888.)
1900. **Coffey, Patrick**, L.R.C.P.&S.I., District Asylum Limerick, Ireland.
1892. **Cole, Robert Henry**, M.D.Lond., M.R.C.P.Lond., Moorcroft, Hillingdon, Uxbridge.

1900. Cole, Sydney John, M.A., M.D., B.Ch.Oxon., Wilts County Asylum, Devizes.
1896. Coles, Richard Ambrose, M.B., La Plaiderie, St. Peter Port, Guernsey.
1903. Collins, Michael Abdy, M.B., B.S., M.R.C.S. & P.Lond., London County Asylum, Bexley, Kent.
1888. Cones, John A., M.R.C.S., 2, Portland Place, Kemp Town, Brighton.
1895. Conry, John, M.D.Aber., Fort Beaufort Asylum, South Africa.
1878. Cooke, Edward Marriott, M.D., M.R.C.S.Eng., Commissioner in Lunacy, 69, Onslow Square, S.W.
1899. Cooke, J. A., M.R.C.S., L.R.C.P., Medical Officer and Co-Licencee, Tue Brook Villa, near Liverpool.
1904. Cooper, K. D., L.R.C.P., L.R.C.S.Ed., 41, Marchmont Street, Edinburgh.
1903. Cormac, Harry Dove, M.B., B.S.Madras, Wilts County Asylum, Devizes.
1891. Corner, Harry, M.D.Lond., M.R.C.S., L.R.C.P., M.P.C., Brooke House, Southgate, N.
1897. Cotton, William, M.A., M.D.Edin., D.P.H.Cantab., 231, Gloucester Road, Bishopston, Bristol.
1893. Cowen, Thomas Philip, M.D., B.S.Lond., Assistant Medical Officer, County Asylum, Laucaster.
1899. Cowper, Alfred, M.A., M.B., C.M.Edin., Valkenburg Asylum, Mowbray, Cape Town.
1884. Cox, L. F., M.R.C.S., Medical Superintendent, County Asylum, Denbigh.
1878. Craddock, F. H., M.A.Oxon., M.R.C.S.Eng., L.S.A., Medical Superintendent, County Asylum, Gloucester.
1893. Craig, Maurice, M.A., M.D., B.C.Cantab., M.R.C.P.Lond., Assistant Medical Officer, Bethlem Royal Hospital, Southwark.
1904. Crawford, William Thomson, M.B.Lond., M.R.C.S., L.R.C.P., East Sussex Asylum, Hellingly, Sussex.
1897. Cribb, Harry Gifford, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, London County Asylum, Cane Hill, Coulsdon, Surrey.
1898. Crookshank, F. G., M.D.Lond., M.R.C.S., L.R.C.P., 27, The Terrace, Barnes, S.W.
1904. Cross, Harold Robert, L.S.A., Storthes Hall Asylum, Kirkburton, near Huddersfield.
1894. Cullinan, Henry M., L.R.C.P.I., L.R.C.S.I., Senior Assistant Medical Officer, Richmond District Asylum, Dublin.
1904. Cullum, Sydney John, M.B., B.Ch.Dubl., Crichton Royal Institution, Dumfries.
1902. Curran, Michael, M.A., M.B., B.Ch., R.U.I., 35, Harcourt Street, Dublin
1869. Daniel, W. C., M.D.Heidelb., M.R.C.S.Eng., Epsom, Surrey.
1899. Daunt, Elliot, M.R.C.S., L.R.C.P., D.P.H., The Glen, Bursledon, Hampshire.
1896. Davidson, Andrew, M.D., C.M.Aber., Callan Park, Sydney, N.S.W.
1891. Davis, Arthur N., L.R.C.P., L.R.C.S.Edin., Medical Superintendent, County Asylum, Exminster, Devon.
1894. Dawson, William R., M.D., B.Ch.Dubl., F.R.C.P.I., Medical Superintendent, Farnham House Asylum, Finglas, Dublin.
1869. Deas, Peter Maury, M.B. and M.S.Lond., Medical Superintendent, Wonford House, Exeter.
1900. Despard, Rosina C., M.D.Lond., Holloway Sanatorium, Virginia Water, Surrey.
1883. De Lisle, Samuel Ernest, L.R.C.P., L.R.C.S.I., Three Counties Asylum, Stotfold, Herts.

1901. De Steiger, Adèle, M.B.Lond., County Asylum, Brentwood, Essex.
1904. Devon, James, L.R.C.P. & S.Edin., 6, Cathedral Square, Glasgow.
1876. Dickson, F. K., F.R.C.P.Edin., Wye House Lunatic Asylum, Buxton, Derbyshire.
1903. Dickson, Thomas Graeme, L.R.C.P. & S.Edin., Assistant Superintendent, Wye House, Buxton.
1879. Dodds, William J., M.D., D.Sc.Edin., Valkenburg, Mowbray, near Cape Town, South Africa.
1886. Donaldson, Robert Lockhart, B.A., M.D., B.Ch.Univ. of Dubl., M.P.C., Senior Medical Officer, District Asylum, Monaghan.
1889. Donaldson, William Ireland, B.A., M.D., B.Ch.Univ. of Dubl., Medical Superintendent, Horton Manor Asylum, Epsom, Surrey.
1892. Donelan, John O'Connor, L.R.C.P.I., L.R.C.S.I., M.P.C., Deputy Superintendent, Portrane Asylum, Donabate, co. Dublin.
1899. Donelan, Thomas O'Connor, L.R.C.P. & L.R.C.S.Ireland, Menston Asylum, near Leeds.
1891. Douglas, Archibald Robertson, L.R.C.S., L.R.C.P.Edin., Royal Albert Asylum, Lancaster.
1890. Douglas, William, M.D.Queen's Univ. Irel., M.R.C.S.Eng., Brandford, Goudhurst.
1897. Dove, Emily Louisa, M.B.Lond., Denstone College, Staffordshire.
1903. Dow, William Alex., M.D.Durh., M.R.C.S.&P.Lond., H.M. Prison, Lewes.
1884. Drapes, Thomas, M.B., Medical Superintendent, District Asylum, Ennis-corthy, Ireland.
1902. Dudgeon, Herbert Wm., M.D.Durh., M.R.C.S.Eng., L.R.C.P.Lond., Medical Officer to the Egyptian Asylum, Abassieh, Cairo, Egypt.
1899. Dudley, Francis, L.R.C.P.&S.I., Senior Assistant Medical Officer, County Asylum, Bodmin, Cornwall.
1903. Dunston, John Thomas, M.D., B.S.Lond., The Colony, Ewell, Epsom, Surrey.
1899. Eades, Albert I., L.R.C.P. & S.I., County Asylum, Winwick, Warrington, Lancs.
1903. Eady, George John, M.D., M.R.C.P.Edin., M.R.C.S.Eng., 78, Drayton Gardens, S. Kensington, S.W.
1874. Eager, Reginald, M.D.Lond., M.R.C.S.Eng., Northwoods, near Bristol.
1873. Eager, Wilson, L.R.C.P.Lond., M.R.C.S.Eng., Northwoods, Winterbourne, Bristol.
1881. Earle, Leslie, M.D.Edin., 108, Gloucester Terrace, Hyde Park, W.
1891. Earls, James Henry, M.D., M.Ch., 104, Donore Road, South Circular Road, Dublin.
1903. East, Guy Rowland, M.B.Durh., Northumberland County Asylum, Morpeth.
1895. Easterbrook, Charles C., M.A., M.D., M.R.C.P.Ed., Medical Superintendent, Ayr District Asylum, Glengall, Ayr, N.B.
1904. Eddison, John Edwin, M.D.Ed., 6, Park Square, Leeds.
1895. Edgerley, Samuel, M.D., M.A., C.M.Edin., Assistant Medical Officer, West Riding Asylum, Menston, nr. Leeds.
1900. Edridge-Green, Frederic W., M.D., F.R.C.S., 14, Welbeck Street, W.
1897. Edwards, Francis Henry, M.D.Brux., M.R.C.P.Lond., Medical Superintendent, Camberwell House, S.E.
1901. Elgee, Samuel Charles, L.R.C.P., L.R.C.S.I., Horton Manor Asylum, Epsom, Surrey.
1889. Elkins, Frank Ashby, M.D., Medical Superintendent, Metropolitan Asylum, Leavesden.

1898. Ellerton, Henry B., M.R.C.S., L.R.C.P., Leavesden Asylum, King's Langley R.S.O., Herts.
1873. Elliot, G. Stanley, M.R.C.P.Edin., F.R.C.S.Edin., 16, Killieser Avenue, Streatham Hill, S.W.
1890. Ellis, William Gilmore, M.D.Brux., Superintendent, Government Asylum, Singapore.
1899. Ellison, F. C., M.D., B.Ch., T.C.D., Assistant Medical Officer, District Asylum, Castlebar.
1901. Erskine, Wm. J. A., M.D., C.M., Senior Assistant Medical Officer, City Asylum, Nottingham.
1895. Eurich, Frederick Wilhelm, M.D., C.M.Edin., 7, Lindum Terrace, Manningham, Bradford, Yorks.
1894. Eustace, Henry Marcus, M.D., B.Ch., B.A.T.C.D. Assistant Physician, Hampstead and Highfield Private Asylum, Glasnevin, Dublin.
1903. Evans, Fredk. Hudson, M.R.C.S., L.R.C.P.Lond., Herts County Asylum, Hill End, St. Albans.
1901. Evans, James Wm., M.R.C.S., L.S.A., Lieut.-Col. Indian Medical Service (retired), East India United Service Club, 16, St. James's Square, S.W.
1897. Everett, William, M.D., Assistant Medical Officer, County Asylum, Chart-ham Downs, Kent.
1891. Ewan, John Alfred, M.A., M.D., Medical Superintendent, Kesteven County Asylum, Sleaford, Linca.
1884. Ewart, C. T., M.D., C.M.Aberd., Claybury Asylum, Woodford Bridge, Essex.
1894. Farquharson, William F., M.D.Edin., Medical Superintendent, Counties Asylum, Garlands, Carlisle.
1901. Fee, Wm. George, L.R.C.P. and L.R.C.S.Edin., Assistant Medical Officer, Brooke House, Upper Clapton, N.E.
1903. Fennell, Charles Henry, M.A., M.D.Oxon, M.R.C.P.Lond., Assistant Medical Officer, Tooting Bec Asylum, London, S.W.
1897. Fielding, James, M.D., Victoria Univ., Canada, M.R.C.S.Eng., L.R.C.P. Edin., Medical Superintendent, Bethel Hospital, Norwich.
1873. Finch, John E. M., M.D., Medical Superintendent, Borough Asylum, Leicester.
1889. Finch, Richard T., B.A., M.B.Cantab., Resident Medical Officer, Fisherton House Asylum, Salisbury.
1867. Finch, W. Corbin, M.R.C.S.Eng., Fisherton House, Salisbury.
1882. Finegan, A. D. O'Connell, L.R.C.P.I., Medical Superintendent, District Asylum, Mullingar, Ireland. (*Hon. Secretary for Ireland.*)
1889. Finlay, David, M.D.Glasg., County Asylum, Bridgend, Glamorgan.
1903. Fitzgerald, Alexis, L.R.C.P. & S.I., L.M., District Asylum, Waterford.
1894. Fitzgerald, Charles E., M.D., F.R.C.S.I., Surgeon-Oculist to the King in Ireland, 27, Upper Merrion Street, Dublin.
1888. Fitz-Gerald, G. C., M.D., B.C.Cantab., M.P.C., Medical Superintendent, Kent County Asylum, Chartham, nr. Canterbury.
1899. Fitzgerald, James J., M.D., B.Ch., B.A.O.R.U.I., Assistant Medical Officer, Cork District Asylum, Carlow.
1901. Fitzgerald, John J., M.D.Brux., L.R.C.P.&S.Edin., Assistant Medical Officer, District Asylum, Cork.
1904. Fleming, Wilfrid Louis Remi, M.R.C.S., L.R.C.P., 53, Queen Anne Street, W.
1899. Flemming, Arthur L., M.R.C.S.Eng., L.R.C.P.Lond., Spring Villa, Richmond Park Road, Clifton.
1894. Fleury, Eleonora Lilian, M.D., B.Ch., R.U.I., Assistant Medical Officer, Richmond Asylum, Dublin.
1902. Forde, Michael J., M.D., M.Ch., R.U.I., Assistant Medical Officer, Richmond Asylum, Donabate, Dublin.
1902. Forshaw, Wm. H., M.R.C.S., L.R.C.P.Lond., 131A, Mile End Road, London, E.

1902. Forster, Hermann Julius, L.R.C.P.I., L.S.A., Assistant Medical Officer, Sussex County Asylum, Hayward's Heath.
1861. Fox, Charles H., M.D.St. And., M.R.C.S.Eng., 35, Heriot Row, Edinburgh.
1896. France, Eric, M.B., B.S.Durh., No. 7, First Floor, 6, Church Square, Cape Town, South Africa.
1881. Fraser, Donald, M.D., 3, Orr Square, Paisley.
1901. French, Louis Alexander, M.R.C.S., L.R.C.P., Love Lane, Wakefield, Yorks.
1902. Fuller, Lawrence Otway, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, Darenth Asylum, Dartford, Kent.
1904. Garden, W. Sim, M.B., County Asylum, Upton, near Chester.
1893. Garth, Henry C., M.B., C.M.Edin., 4, Harrington Street, Calcutta, India.
1890. Gaudin, Francis Neel, M.R.C.S., L.S.A., M.P.C., Medical Superintendent, The Grove, St. Lawrence, Jersey.
1885. Gayton, Francis C., M.D., Brookwood Asylum, Woking, Surrey.
1896. Geddes, John W., M.B., C.M.Edin., Assistant Medical Officer, Durham County Asylum, Winterton, Ferryhill, Durham.
1892. Gemmel, James Francis, M.B.Glasg., Assistant Medical Officer, County Asylum, Whittingham, Preston.
1904. Gibb, James Alex., M.B., Ch.B., Dorset County Asylum, Dorchester.
1889. Gibbon, William, L.R.C.P.I., L.F.P.S.Glasg., Senior Assistant Medical Officer, Joint Counties Asylum, Carmarthen.
1903. Giles, James Alfred, M.B., B.S.Durh., Rainhill Asylum, Lancs.
1899. Gilfillan, Samuel James, M.A., M.B.Edin., London County Asylum, Coulsdon, Surrey.
1896. Gill, Frank A., M.D., C.M.Aber., Deputy Medical Officer, H.M. Prison, Liverpool; Brockhall, Whalley, Lancs.
1889. Gill, Stanley, B.A., M.D., M.R.C.P.Lond., Shaftesbury House, Formby, Lancashire.
1904. Gillespie, Daniel, M.B. (R.U.I.), Wadsley Asylum, near Sheffield.
1897. Gilmour, John Rutherford, M.B., F.R.C.P.Edin., West Riding Asylum, Scalebor Park, Burley-in-Wharfedale; Yorks.
1901. Glasgow, John George, M.R.C.S.Eng., L.R.C.P.Lond., 108, Stockwell Road, S.W.
1878. Glendinning, James, M.D.Glasg., L.R.C.S.Edin., L.M., Medical Superintendent, Joint Counties Asylum, Abergavenny.
1896. Goldie-Scott, Thomas G., M.B., C.M.Edin., M.R.C.S., L.R.C.P., Junior Assistant Physician, Royal Asylum, Gartnavel, Glasgow.
1899. Goldschmidt, Oscar Bernard, M.B., Ch.B.Vict., Bishopstone House, Bedford.
1897. Good, Thomas Saxty, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, County Asylum, Littlemore, Oxford.
1889. Goodall, Edwin, M.D., B.S.Lond., M.P.C., Medical Superintendent, Joint Counties Asylum, Carwarthen.
1899. Gordon, James Leslie, M.B., Ch.B., Tooting Bec Asylum, Tooting, London, S.W.
- Gordon, William S., M.A., M.B., T.C.D., District Asylum, Mullingar.
1901. Gostwyck, C. H. G., M.B., Ch.B., Scalebor Park, Burley-in-Wharfedale.
1899. Graham, Robert A. L., B.A., M.B., B.Ch., R.U.I., Assistant Medical Officer, District Asylum, Belfast.
1894. Graham, Samuel, L.R.C.P.Lond., Assistant Medical Officer, District Asylum, Antrim.

1888. Graham, Thomas, M.D.Glasg., 3, Garthland Place, Paisley.
1887. Graham, W., M.D., R.U.I., Medical Superintendent, District Lunatic Asylum, Belfast.
1890. Gramshaw, Farbrace Sidney, M.D., F.R.C.S.E., L.R.C.P.I., L.R.C.S. Edin., L.M., L.A.H.Dubl., 9, St. Leonard's, York.
1904. Grant, Angus John, M.D, B.Sc., L.R.C.P.E., Ennerdale, Haddington, N.B.
1902. Green, Philip A. M., M.R.C.S., L.R.C.P., London Hospital, E.
1902. Greene, George Watters, M.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., Assistant Medical Officer, Claybury Asylum, Woodford Bridge, Essex.
1896. Greene, Thomas Adrian, L.R.C.P., L.R.C.S., Assistant Medical Officer, District Asylum, Ennis, Ireland.
1886. Greenlees, T. Duncan, M.D., Medical Superintendent to the Grahams-town Asylum, Cape of Good Hope.
1894. Griffin, Edward W., M.D., M.Ch., R.U.I., Assistant Medical Officer, The Asylum, Killarney.
1904. Griffin, Ernest Harrison, B.A.Cantab., L.S.A.Lond., Camberwell House, Peckham Road, S.E.
1901. Grills, Galbraith Hamilton, M.D., B.Ch., Assistant Medical Officer, County Asylum, Chester.
1900. Grove, Ernest George, M.R.C.S., L.R.C.P., Bootham Park, York.
1894. Gwynn, Charles Henry, M.D.Edin., co-Licensee, St. Mary's House, Whitechurch, Salop.
1879. Gwynn, Samuel T., M.D., St. Mary's House, Whitechurch, Salop.
1894. Halstead, Harold Cecil, M.D.Durh., Assistant Medical Officer, Peckham House, Peckham.
1903. Hanbury, Langton Fuller, M.R.C.S.Eng., L.R.C.P.Lond., West Ham Borough Asylum, Ilford, Essex.
1902. Hanbury, Saville Waldron, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, London County Asylum, Banstead, Surrey.
1896. Hanbury, William Reader, M.R.C.S., L.R.C.P., Senior Assistant Medical Officer, West Ham Borough Asylum, Goodmayes, Ilford.
1903. Hankin, Chella Mary, M.B.Durh., Northumberland County Asylum, Morpeth.
1901. Hannay, Mary Baird, M.B., C.M., Gartloch Asylum, Gartcosh, Glasgow, N.B.
1901. Harding, William, M.D., M.R.C.P.Lond., Medical Superintendent, Northampton County Asylum, Berry Wood, Northampton.
1899. Harmer, W. A., L.S.A., Resident Superintendent and Licensee, Redlands Private Asylum, Tonbridge, Kent.
1904. Harper-Smith, George Hastie, M.R.C.S., L.R.C.P., B.A.Cantab., Claybury Asylum, Woodford Bridge, Essex.
1897. Harrie, William, M.D.St. And., F.R.C.S.Edin., M.R.C.P.Edin., Medical Superintendent, City Asylum, Hellesdon, Norwich.
1898. Harris-Liston, L., M.D., M.R.C.S., L.R.C.P.Lond., L.S.A., City Asylum, Digbys, Exeter.
1886. Harvey, Bageual Crosbie, L.R.C.P., L.R.C.S., Assistant Medical Officer, District Asylum, Clonmel.
1892. Haslett, William John, M.R.C.S., L.R.C.P., Resident Medical Superintendent, Halliford House, Sunbury-on-Thames.
1891. Havelock, John G., M.D., C.M.Edin., Physician Superintendent, Montrose Royal Asylum.
1890. Hay, Frank, M.B., C.M., Physician Superintendent, Ashburn Hall Asylum, Dunedin, New Zealand.
1900. Haynes, Horace E., M.R.C.S., L.S.A., 32, Brunswick Terrace, Hove, Sussex.
1895. Hearder, Frederic P., M.D., C.M., Assistant Medical Officer, North Riding Asylum, Clifton, Yorks.

1903. Heffernan, Patrick, M.B., B.Ch., B.A.O., R.U.I., District Asylum, Clonmel, co. Tipperary.
1885. Henley, E. W., M.R.C.S., L.R.C.P., County Asylum, Barnwood, Gloucester.
1899. Herbert, William W., M.D., C.M. Edin., North Wales Counties Asylum, Denbigh, North Wales.
1877. Hetherington, Charles E., M.B., Medical Superintendent, District Asylum, Londonderry, Ireland.
1903. Hewitt, David Walker, M.B., B.Ch., R.U.I., Surgeon R.N.
1877. Hewson, R. W., L.R.C.P. Edin., Medical Superintendent, Coton Hill, Stafford.
1902. Higginson, John Wigmore, M.R.C.S., L.R.C.P., Resident Medical Officer, Hayes Park Asylum, Hayes Park, Middlesex.
1882. Hill, H. Gardiner, M.R.C.S., Medical Superintendent, Middlesex County Asylum, Tooting.
1900. Hill, J. R., M.R.C.S., L.R.C.P., Fenstanton, Christchurch Road, Streatham Hill, S.W.
1871. Hingston, J. Tregelles, M.R.C.S. Eng., Medical Superintendent, North Riding Asylum, Clifton, Yorks.
1881. Hitchcock, Charles Knight, M.D., Bootham Asylum, York.
1900. Holländer, Bernard, M.D., M.R.C.S., L.R.C.P., 62, Queen Anne Street, London, W.
1903. Hopkins, Charles Leighton, M.B., B.C. Cantab., Assistant Medical Officer, Kent County Asylum, Barming Heath, Maidstone.
1894. Hotchkis, Robert D., M.A., M.D., Assistant Physician, Royal Asylum, Glasgow.
1900. Hughes, George Osborne, M.D. Virginia, M.R.C.S., L.R.C.P., 22, Overstrand Mansions, Prince of Wales' Road, S.W.
1900. Hughes, Percy T., M.B., Ch.M. Edin., London County Asylum, Bexley, Kent.
1904. Hughes, William Stanley, M.R.C.S., L.R.C.P., Claybury Asylum, Woodford Bridge, Essex.
1857. Humphry, John, M.R.C.S. Eng., Medical Superintendent, County Asylum, Stone, near Aylesbury, Bucks.
1897. Hunter, David, M.A., M.B., B.C. Cantab., West Ham Borough Asylum, Goodmayes, Ilford, Essex.
1904. Hunter, Percy Douglas, M.R.C.S., L.R.C.P. Lond., Durham County Asylum, Winterton, Ferryhill.
1882. Hyslop, James, D.S.O., M.D., Natal Government Asylum, Pietermaritzburg.
1888. Hyslop, Theo. B., M.D., C.M. Edin., M.R.C.P.E., M.P.C., Bethlem Royal Hospital, S.E.
1871. Ireland, William W., M.D. Edin., 1, Victoria Terrace, Musselburgh, N.B.
1904. Izard, Herbert Edward, M.R.C.S., L.R.C.P., Cheddleton Asylum, Leek, Staffordshire.
1866. Jackson, J. Hughlings, M.D. St. And., F.R.C.P. Lond., F.R.S., Physician to the Hospital for Epilepsy and Paralysis, &c., 3, Manchester Square, London, W.
1904. Jeremy, Harold Rowe, M.R.C.S. Eng., L.R.C.P. Lond., 60, Friern Road, East Dulwich, S.E.
1893. Johnston, Gerald Herbert, L.R.C.S. and L.R.C.P. Edin., Beech Lawn, Belper, Derbyshire.
1878. Johnstone, J. Carlyle, M.D., C.M., Medical Superintendent, Roxburgh District Asylum, Melrose.
1903. Johnstone, Thomas, M.D. Edin., M.R.C.P. Lond., Annaudale, Ilkley, Yorks.
1880. Jones, D. Johnson, M.D. Edin., Medical Superintendent, Banstead Asylum, Surrey.
1866. Jones, Evan, M.R.C.S. Eng., Ty-mawr, Aberdare, Glamorganshire.

1882. Jones, Robert, M.D.Lond., B.S., F.R.C.S., Medical Superintendent, London County Asylum, Claybury, Woodford, Essex. (*Gen. Secretary from 1897.*)
1897. Jones, Samuel Lloyd, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, London County Asylum, Colney Hatch, N.
1898. Jones, W. Ernest, M.R.C.S.Eng., L.R.C.P.Lond., Brecon and Radnor Asylum, Talgarth, R.S.O.
1897. Jones, William Edward, M.D.Brux., 44, Union Street, near Middlesex Hospital, W.
1879. Kay, Walter S., M.D., Medical Superintendent, South Yorkshire Asylum, Wadsley, near Sheffield.
1886. Keay, John, M.D., Bangour Village, Uphall, Linlithgowshire.
1899. Keegan, Lawrence Edward, M.D., Medical Superintendent, Lunatic Asylum, St. John's, Newfoundland.
1902. Kelley-Patterson, Wm., M.D., M.Ch., R.U.I., Bally-Emond, Killowen, Dublin.
1898. Kemp, Norah, M.B., C.M.Glas., The Retreat, York.
1899. Keunedy, Hugh T. J., L.R.C.P.&S.I., L.M., Assistant Medical Officer, District Asylum, Enniscorthy, Wexford.
1902. Kennedy, Patrick Gabriel, L.R.C.P.&S.Edin., L.F.P.S.Glasg., Assistant Medical Officer, London County Asylum, Banstead, Surrey.
1897. Kerr, Hugh, M.A., M.D.Glasg., Assistant Medical Officer, Bucks County Asylum, Stone, Aylesbury, Bucks.
1902. Kerr, Neil Thomson, M.B., C.M.Ed., Medical Superintendent, Lanark District Asylum, Hartwood, Shotts, N.B.
1893. Kershaw, Herbert Warren, M.R.C.S.Eng., L.R.C.P.Lond., Dinsdale Park, near Darlington.
1897. Kidd, Harold Andrew, M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent, West Sussex Asylum, Chichester.
1903. King, Frank Raymond, B.A.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent, Northumberland House, Finsbury Park, N.
1897. Kingdon, Wilfred Robert, M.B., B.S.Durh., 55, Haverstock Hill, London, N.W.
1903. Kingsford, Arthur Beresford, M.R.C.S., L.R.C.P.Lond., D.P.H.Camb., 11, Burwood Place, Hyde Park, W.
1902. King-Turner, A. C., M.B., C.M.Edin., The Retreat, Fairford, Gloucestershire.
1899. Kirwan, James St. L., M.B., Ch.B., T.C.D., Medical Superintendent, District Asylum, Ballinasloe, Ireland.
1903. Kough, Edward Fitzadam, M.B., B.Ch., County Asylum, Gloucester.
1898. Labey, Julius, M.R.C.S., Medical Superintendent, Public Asylum, Jersey.
1900. Laing, Charles Frederick, M.B., C.M.Glasg., County Asylum, Wells, Somerset.
1902. Langdon-Down, Percival L., M.A., M.B., B.C.Cantab., Rudder Grange, Cedar Road, Hampton Wick, Middlesex.
1896. Langdon-Down, Reginald L., M.A., M.B., B.C.Cantab., M.R.C.P.Lond., Normansfield, Hampton Wick.
1902. Laval, Evariste, M.B., C.M.Edin., Brislington House Asylum, near Bristol.
1898. Lavers, Norman, M.D., M.R.C.S., Medical Superintendent, The Asylum, Canterbury.
1899. Law, Charles D., L.R.C.P.&S.Edin., L.F.P.G.S., Crichton Royal Institute, Dumfries.
1892. Lawless, George Robert, F.R.C.S.I., Medical Superintendent, District Asylum, Armagh.
1870. Lawrence, Alexander, M.A., M.D., County Asylum, Upton, Chester.
1893. Layton, Henry A., M.R.C.S.Eng., L.R.C.P.Edin., Cornwall County Asylum, Bodmin.

1899. Leeper, Richard R., F.R.C.S.I., Medical Superintendent, St. Patrick's Hospital, Dublin.
1883. Legge, Richard J., M.D., Medical Superintendent, County Asylum, Derby.
1894. Lentagne, John, B.A., F.R.C.S.I., Medical Visitor of Lunatics to the Court of Chancery, 5, Upper Merrion Street, Dublin.
1899. Lewis, H. Wolseley, M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent, Kent County Asylum, Barming Heath, Maidstone.
1879. Lewis, William Bevan, M.R.C.S., L.R.C.P., West Riding Asylum, Wakefield.
1863. Ley, H. Rooke, M.R.C.S.Eng., 2, Lowther Terrace, Lytham, Lancs.
1899. Ligertwood, Walter H., M.R.C.S., L.R.C.P., Wells Asylum, Somerset.
1859. Lindsay, James Murray, M.D.St.And., F.R.C.S. and F.R.C.P.Edin. 26, Combe Park, Bath. (PRESIDENT, 1893.)
1903. Logan, Thomas Stratford, L.R.C.P. & S.Edin., L.F.P.S.Glas., Assistant Medical Officer, West Riding Asylum, Wakefield.
1899. Longworth, Stephen G., L.R.C.P. L.R.C.S.I., County Asylum, Melton, Suffolk.
1898. Lord, John R., M.B., C.M., Heath Asylum, Bexley, Kent.
1904. Ludovici, E., 117, York Street, Sydney, N.S.W.
1904. Lyall, C. H. Gibson, L.R.C.P. & S.Edin., Cumberland and Westmoreland Asylum, Garlands, Carlisle.
1872. Lyle, Thomas, M.D.Glasg., 34, Jesmond Road, Newcastle-on-Tyne.
1899. Macartney, William H. C., L.R.C.P.&S.I., Tattlebury House, Goudhurst, Kent.
1880. MacBryan, Henry C., L.R.C.P. & S. Edin., Kingsdown House, Box, Wilts.
1902. McCarthy, Owen F., L.R.C.P.&S.I., District Lunatic Asylum, Cork, Ireland.
1900. McClintock, John, L.R.C.P. & L.R.C.S.Edin., Resident Medical Superintendent, Grove House, Church Stretton, Salop.
1900. McConaghey, John C., M.B., C.M.Edin., Parkside Asylum, Macclesfield, Cheshire.
1836. McCreery, James Vernon, L.R.C.S.I., Medical Superintendent, Hospital for Insane, Kew, Victoria.
1897. McCutchan, William Arthur, L.R.C.P.&S.Edin., Assistant Medical Officer, Cambridge County Asylum, Fulbourn, Cambs.
1901. Macdonald, James H., M.B., Ch.B.Glasg., Govan District Asylum, Hawkhead, Paisley, N.B.
1884. Macdonald, Peter W., M.D., C.M., Medical Superintendent, County Asylum, near Dorchester, Dorset. (*Hon. Sec. S.W. Division.*)
1876. McDowall, John Greig, M.D.Edin., Medical Superintendent, West Riding Asylum, Menston, near Leeds.
1870. McDowall, Thomas W., M.D.Edin., L.R.C.S., Medical Superintendent, Northumberland County Asylum, Morpeth. (PRESIDENT, 1897.)
1893. Macevoy, Henry John, M.D., B.Sc.Lond., M.P.C., 41, Buckley Road, Brondebury, London, N.W.
1895. Macfarlane, Neil M., M.D.Aber., Medical Superintendent, Government Hospital, Thlotse Heights, Leribe, Basutoland, South Africa.
1883. Macfarlane, W. H., M.B. and Ch.B.Univ. of Melbourne, Medical Superintendent, Hospital for the Insane, New Norfolk, Tasmania.
1902. McGregor, John, M.B., Ch.B.Edin., Assistant Medical Officer, County Asylum, Bridgend, Glam.
1899. McKelvey, Alexander Niel, L.&M.P.C.P.&S.I., The Asylum, Auckland, New Zealand.
1904. McKenna, E. Joseph, M.B., B.Ch., District Asylum, Carlow.

1891. Mackenzie, Henry J., M.B., C.M.Edin., M.P.C., Assistant Medical Officer, The Retreat, York.
1903. Mackenzie, Theodore Charles, M.B., Ch.B.Edin., Royal Edinburgh Asylum, Morningside.
1899. Mackeown, William John, A.B., M.B., B.A., O.R.U.I., A.M.O., County Asylum, Fareham, Hants.
- * Mackintosh, Donald, M.D.Durh. and Glasg., L.F.P.S.Glasg., 5, Paynesfield Gardens, East Sheen, S.W.
1873. Macleod, Murdoch D., M.B., Medical Superintendent, East Riding Asylum, Beverley, Yorks.
1901. Macleod, Neil, M.D., C.M.Edin., H.B.M. Consular Surgeon and Surgeon to the General Hospital, Shanghai, China, c/o A. and N. Stores, Victoria Street.
1904. Macnamara, Eric Danvers, 45, Campden House Road, Kensington, W.
1898. Macnaughton, George W. F., M.D., 33, Lower Belgrave Street, Eaton Square, London, S.W.
1882. McNaughton, John, M.D., Medical Superintendent, Criminal Lunatic Asylum, Perth.
1882. Macphail, S. Rutherford, M.D.Edin., Derby Borough Asylum, Rowditch, Derby.
1896. Macpherson, Charles, M.D.Glas., Deputy Commissioner in Lunacy, 51, Queen Street, Edinburgh.
1886. Macpherson, John, M.D., F.R.C.P., 8, Darnaway Street, Edinburgh.
1901. MacRae, Duncan M., M.B., C.M., Philippolis, Orange River Colony, S. Africa.
1901. McRae, G. Douglas, M.B., C.M.Edin., Assistant Physician, Royal Asylum, Morningside, Edinburgh.
1902. Macrae, Kenneth Duncan Cameron, M.B., Ch.B.Edin., Lynwood, Murrayfield, Edinburgh.
1894. McWilliam, Alexander, M.A., M.B., C.M.Aber., Medical Superintendent, Heigham Hall, Norwich.
1896. Maguire, Charles Evans, M.D., C.M., Colonial Medical Service, Suva Fiji, South Pacific.
1904. Manning, Ernest J., M.R.C.S., L.R.C.P.Lond., Broadmoor Asylum, Crowthorne, Berks.
1865. Manning, Henry J., B.A.Lond., M.R.C.S., Laverstock House, Salisbury.
1900. Manning, Herbert C., M.R.C.S., L.R.C.P., Powick Asylum, Worcester.
1903. Marnan, John, M.B., B.Ch., Assistant Medical Officer, City and County Asylum, Bristol.
1896. Marr, Hamilton C., M.D.Glasg.Univ., Medical Superintendent, Woodilee Asylum, Lenzie.
1897. Marshall, John, M.B., C.M.Glasg., Assistant Medical Officer, County Asylum, Bridgend, Glamorgan.
1896. Martin, James Charles, L.R.C.S.I., L.M., L.R.C.P., Assistant Medical Officer, District Asylum, Donegal.
1904. May, George Francis, M.D., C.M. (McGill), L.S.A., Winterton Asylum, Ferryhill, Durham.
1890. Menzies, William F., M.D., B.Sc.Edin., Medical Superintendent, Stafford County Asylum, Cheddleton, near Leek.
1891. Mercier, Charles A., M.B.Lond., F.R.C.S.Eng., Lecturer on Insanity, Westminster Hospital; Flower House, Catford, S.E.
1877. Merson, John, M.A., M.D.Aber., Medical Superintendent, Borough Asylum, Hull.
1871. Mickle, William Julius, M.D., F.R.C.P.Lond., Medical Superintendent, Grove Hall Asylum, Bow, London. (PRESIDENT, 1896.)
1893. Middlemass, James, M.D., F.R.C.P., C.M., B.Sc.Edin., Borough Asylum, Ryhope, Sunderland.
1898. Middlemist, George Edwyn, M.B., Keelby, Brocklesby, Lincs.

1883. Miles, George E., M.R.C.P., &c., Medical Superintendent, Hospital for the Insane, Rydalmere, New South Wales.
1887. Miller, Alfred, M.B. and B.C.Dubl., Medical Superintendent, Hatton Asylum, Warwick.
1904. Miller, James Webster, Warneford Asylum, Oxford.
1893. Mills, John, M.B., B.Ch., and Diploma in Mental Diseases, R.U.I. Assistant Medical Officer, District Asylum, Ballinasloe.
1881. Mitchell, Richard B., M.D., Medical Supt., Midlothian District Asylum.
1885. Molony, John, F.R.C.P.I., J.P., Forkhill House, Forkhill, Dundalk.
1878. Moody, James M., M.R.C.S.Eng., L.R.C.P.&L.M.Edin., Medical Superintendent, County Asylum, Cane Hill, Coulsdon, Surrey.
1885. Moore, Edw. E., M.D.Dubl., M.P.C., Medical Superintendent, District Asylum, Letterkenny, Ireland.
1899. Moore, Wm. D., M.D., M.Ch., Medical Superintendent, Holloway Sanatorium, Virginia Water, Surrey.
1892. Morrison, Cuthbert S., L.R.C.P. and L.R.C.S.Edin., Medical Superintendent, County and City Asylum, Burghill, Hereford.
1896. Morton, W. B., M.D.Lond., Assistant Medical Officer, Brislington House, Bristol.
1896. Mott, F. W., M.D., B.Sc., B.S., F.R.C.P.Lond., F.R.S., 25, Nottingham Place, London, W.
1896. Mould, Gilbert E., M.R.C.S., L.R.C.P.Lond., The Grange, Rotherham, Yorks.
1862. Mould, George W., M.R.C.S.Eng., Cornist Hall, Flint, N. Wales. (PRESIDENT, 1880.)
1897. Mould, Philip G., M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, Royal Lunatic Hospital, Cheadle, Manchester.
1897. Mumby, Bonner Harris, M.D.Aber., D.P.H.Cantab., Medical Superintendent, Borough Asylum, Portsmouth.
1901. Munn, Patrick James, M.B., C.M.Edin., Three Counties Asylum, near Hitchin, Herts.
1893. Murdoch, James William Aitken, M.B., C.M.Glasg., Medical Superintendent, Berks County Asylum, Wallingford.
1900. Murphy, Jerome J., M.R.C.S., L.R.C.P.Lond., Banstead Asylum, Sutton, Surrey.
1878. Murray, Henry G., L.R.C.P.I., L.M., L.R.C.S.I., Assistant Medical Officer, Prestwich Asylum, Manchester.
1891. Musgrove, Chas. D., M.D.Edin., 8, Herbert Terrace, Penarth, S. Wales.
1904. Nash, Arthur Charles, M.R.C.S., L.R.C.P.Lond., County Asylum, Mickleover, Derby.
1903. Navarra, Norman, M.R.C.S., L.R.C.P., City of London Asylum, Stone, Dartford.
1880. Neil, James, M.D., M.P.C., Assistant Medical Officer, Warneford Asylum, Oxford.
1903. Nelis, William F., M.D., Monmouthshire Asylum, Abergavenny.
1875. Newington, Alexander, M.B.Camb., M.R.C.S.Eng., Woodlands, Ticehurst.
1873. Newington, H. Hayes. F.R.C.P.Edin., M.R.C.S.Eng., The Gables, Ticehurst, Sussex. (PRESIDENT, 1889.) (*Treasurer.*)
1881. Newth, Alfred H., M.D., Ardlin House, Haywards Heath, Sussex.
1904. Nicholl, Robert Campbell, L.R.C.P. & S.I., Hatton Asylum, nr. Warwick.
1869. Nicolson, David, C.B., M.D., C.M.Aber., M.R.C.P.Edin., F.S.A.Scot., Balgownie, Edgeborough Road, Guildford. (PRESIDENT, 1895.)
1899. Nixon, John C., M.B., West Riding Asylum, Menston, nr. Leeds.

1893. Nobbs, Athelstane, M.D., C.M.Edin., 389, Queen's Road, Battersea Park, S.W.
1888. Nolan, Michael J., L.R.C.P.I., M.P.C., Medical Superintendent, District Asylum, Downpatrick.
1892. Noott, Reginald Harry, M.B., C.M.Edin., Senior Assistant Medical Officer, Criminal Lunatic Asylum, Broadmoor, Berks.
1880. Norman, Conolly, F.R.C.P.I., Medical Superintendent, Richmond District Asylum, Dublin, Ireland. (*Hon. Secretary for Ireland, 1887—1894.*) (PRESIDENT, 1895.) (*Editor of Journal.*)
1885. Oakshott, James A., M.D., Medical Superintendent, District Asylum, Waterford, Ireland.
1903. O'Doherty, Patrick. B.A. and M.B.Irel., District Asylum, Omagh.
1904. O'Downey, L.R.C.P. & S. Edin., Salop and Montgomery County Asylum, Bicton Heath, nr. Shrewsbury.
1901. Ogilvy, David, B.A., M.D., B.Ch., L.M.Dub., Assistant Medical Officer, London County Asylum, Horton, nr. Epsom, Surrey.
1892. O'Mara, Francis, L.R.C.P.&S.I., District Asylum, Ennis, Ireland.
1886. O'Neill, Edward D., M.R.C.P.I., Medical Superintendent, The Asylum, Limerick.
1868. Orange, William, M.D.Heidelb., F.R.C.P.Lond., C.B., Oakhurst, Godalming, Surrey. (PRESIDENT, 1883.)
1902. Orr, David, M.B., C.M.Edin., Pathologist, County Asylum, Prestwich, Lancs.
1899. Osburne, Cecil A. P., F.R.C.S.Edin., L.R.C.P.Edin., The Grove, Old Catton, Norwich.
1890. Oswald, Landel R., M.B., M.P.C., Physician Superintendent, Royal Asylum, Gartnavel, Glasgow.
1899. Owen, Corbet W., M.B., C.M.Edin., 31, High Street, Bangor, North, Wales.
1902. Parker, Charles Seymour, M.R.C.S.Eng., L.R.C.P.Lond., Launceston, Tasmania.
1898. Parker, William Arnot, M.B., C.M., Medical Superintendent, Gartloch Asylum, Gartcosh, N.B.
1899. Parsons, Laurence D., B.A., M.B., Ch.B., Assistant Colonial Surgeon and Port Medical Officer, Castle Road, Gibraltar.
1898. Pasmore, Edwin Stephen, M.D.Lond., M.R.C.P.Lond., Croydon Mental Hospital, Warlingham, Surrey.
1901. Passmore, Wm. Edwin, L.S.A.Lond., 2, Sylvan Villas, Woodford Green, Essex.
1899. Paton, Robert N., L.R.C.P., L.R.C.S.Edin., Medical Officer, H.M. Prison, Wormwood Scrubbs, London, W.
1899. Patrick, John, M.B., Ch.B., District Asylum, Belfast.
1892. Patterson, Arthur Edward, M.D., C.M.Aber., Senior Assistant Medical Officer, City of London Asylum, Dartford.
1903. Pearce, Francis H., M.B., B.C.Cantab., Earlewood Asylum, Redhill, Surrey.
1899. Pearce, G. Heneage, M.A., M.R.C.S., Borough Asylum, Humberstone, Leicester.
1873. Pedler, George H., L.R.C.P.Lond., M.R.C.S.Eng., 6, Trevor Terrace, Knightsbridge, S.W.
1903. Peebles, Alex. Spalding Mackie, M.B., Ch.B.Edin., Perth District Asylum, Murthly.
1893. Perceval, Frank, M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent, County Asylum, Prestwich, Manchester, Lancashire.
1878. Philipps, Sutherland Rees, M.D., C.M. Queen's Univ. Irel., F.R.G.S., 8, Claremont Road, Surbiton.
1875. Philipson, Sir George Hare, M.D. and M.A.Cantab., F.R.C.P.Lond., 7, Eldon Square, Newcastle-on-Tyne.
1891. Pierce, Bedford, M.D.Lond., M.R.C.P., Medical Superintendent, The Retreat, York.

1888. Pietersen, J. F. G., M.R.C.S., Ashwood House, Kingswinford, near Dudley, Stafford.
1898. Piper, Francis Parris, M.B.Lond., M.R.C.S., L.R.C.P., King's Leigh, Tankerton, Whitstable, Kent.
1896. Planck, Charles, M.A.Camb., M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, East Sussex County Asylum, Haywards Heath.
1889. Pope, George Stevens, L.R.C.P.&L.R.C.S.Edin., L.F.P.&S.Glasg., Medical Superintendent, Middlesbrough Asylum, Cleveland, Yorks.
1900. Powell, Alfred B. S., L.R.C.P. and S.Edin., Grahamstown Asylum, Cape of Good Hope.
1876. Powell, Evan, M.R.C.S.Eng., L.S.A., Medical Superintendent, Borough Lunatic Asylum, Nottingham.
1904. Pringle, A. D., Government Asylum, Pietermaritzburg, Natal, South Africa.
1875. Pringle, Henry T., M.D.Glasg., Hawtree, Ferndown, Wimborne.
1901. Pugh, Robert, M.D.Edin., Ch.B., Claybury Asylum, Woodford Bridge, Essex.
1904. Quin, Henry C. E., L.R.C.P., L.R.C.S.Edin., Camberwell House, Peckham Road, S.E.
1904. Race, John Percy, M.R.C.S., L.R.C.P., L.S.A., East Sussex Asylum, Hellingly, Sussex.
1899. Rainsford, F. E., M.D., B.A., Resident Physician, Stewart Institute, Palmerston, co. Dublin.
1894. Rambaut, Daniel F., M.D.Univ. Dubl., Salop and Montgomery Asylum, Bickton Heath, Shrewsbury.
1902. Ratray, A. Mair, M.B., C.M.Edin., City Asylum, Gosforth, Newcastle-on-Tyne.
1889. Raw, Nathan, M.D., F.R.C.S., Mill Road Infirmary, Liverpool.
1893. Rawes, William, M.D.Durh., F.R.C.S.Eng., Medical Superintendent, St. Luke's Hospital, Old Street, London, E.C.
1870. Rayner, Henry, M.D.Aberd., M.R.C.P.Edin., 16, Queen Anne Street, London, W. (PRESIDENT, 1884.) (*Late General Secretary.*) (*Editor of Journal.*)
1903. Read, George F., L.R.C.S., L.R.C.P.Edin., Hospital for the Insane, New Norfolk, Tasmania.
1899. Redington, John, F.R.C.S.&L.R.C.P.I., A.M.O., Richmond Asylum, Dublin.
1887. Reid, William, M.D., Physician Superintendent, Royal Asylum, Aberdeen.
1891. Renton, Robert, M.B., C.M.Edin., M.P.C., Courtburn, Coldingham, Berwickshire.
1886. Revington, George, M.D. and Stewart Scholar Univ. Dubl., M.P.C., Medical Superintendent, Central Criminal Asylum, Dundrum, Ireland.
1903. Rhodes, John Wilson, M.D.Bruce, L.R.C.P.&S.Edin., Ivy Lodge, Barton Moor, Didsbury, Manchester.
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1899. Richards, John, M.B., C.M.Edin., Leicestershire and Rutland Asylum, Leicester.
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1903. Roberts, Norcliffe, M.B., B.S.Durh., London County Asylum, Cane Hill, Coulsdon, Surrey.
1871. Robertson, Alexander, M.D.Edin., 11, Woodside Crescent, Glasgow.

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1859. Rogers, Thomas Lawes, M.D.St. And., M.R.C.P.Lond., M.R.C.S.Eng., Eastbank, Court Road, Eltham, Kent. (PRESIDENT, 1874.)
1895. Rolleston, Lancelot W., M.B., B.S.Durb., Senior Assistant Medical Officer, Middlesex County Asylum, Tooting, S.W.
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1899. Rorie, George Arthur, M.B., C.M., Senior Assistant Medical Officer, Dorset County Asylum, Dorchester.
1860. Rorie, James, M.D.Edin., L.R.C.S.Edin., 4, Roxburgh Terrace, West Park Road, Dundee. (*Late Hon. Secretary for Scotland.*)
1888. Ross, Chisholm, M.D., Lunacy Department, Sydney, New South Wales.
1899. Rotherham, Arthur, M.A., M.B., B.C.Cantab., Medical Superintendent, Darenth Asylum, Dartford, Kent.
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1896. Rutherford, James Mair, M.B., C.M.Edin., Assistant Physician, Royal Edinburgh Asylum, Morningside.
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- * Sankey, R. Heurtley H., M.R.C.S.Eng., Medical Superintendent, Oxford County Asylum, Littlemore, Oxford.
1873. Savage, Geo. H., M.D.&F.R.C.P.Lond., 3, Henrietta Street, Cavendish Square, W. (*Late Editor of Journal.*) (PRESIDENT, 1886.)
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1889. Scowcroft, Walter, M.R.C.S., Medical Superintendent, Royal Lunatic Hospital, Cheadle, near Manchester.
1880. Seccombe, George S., M.R.C.S., L.R.C.P., The Colonial Lunatic Asylum, Port of Spain, Trinidad, West Indies.
1879. Seed, William Hy., M.B., C.M.Edin., The Poplars, 110, Waterloo Road, Ashton-on-Ribble, Preston.
1889. Sells, Charles John, L.R.C.P., M.R.C.S., L.S.A., White Hall, Guildford.

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1880. Shaw, James, M.D., 310, Kensington, Liverpool.
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1882. Sheldon, Thomas S., M.B., Medical Superintendent, Cheshire County Asylum, Parkside, Macclesfield.
1900. Shera, J. E. P., M.D., Kent County Asylum, Chartbam, near Canterbury.
1896. Sherrard, David John, B.A., M.B., M.Ch.Dubl., 7, Bloomsbury Place, Brighton.
1877. Shuttleworth, George E., M.D.Heidelb., M.R.C.S. and L.S.A.Eng., B.A. Lond., late Medical Superintendent, Royal Albert Asylum, Lancaster; Ancaster House, Richmond Hill, Surrey.
1899. Sibley, Reginald Oliver, M.B.Lond., M.R.C.S., L.R.C.P., Assistant Medical Officer, London County Asylum, Cane Hill, Coulsdon, Surrey.
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1888. Sinclair, Eric, M.D.Glasg., Medical Superintendent, Gladesville Asylum, New South Wales.
1891. Skeen, James Humphry, M.B., C.M.Aber., Medical Superintendent, Glasgow District Asylum, Bothwell.
1898. Skeen, William St. John, M.B., C.M., County Asylum, Winterton, Ferryhill, Durham.
1900. Skinner, Ernest W., M.D., C.M.Edin., Bank House, Rye, Sussex.
1903. Skinner, William Alfred, M.B., Natal Government Asylum, Pietermaritzburg.
1901. Slater, George N. O., M.D., Assistant Medical Officer, Essex County Asylum, Brentwood.
1897. Smalley, Herbert, M.D.Durh., L.R.C.P., M.R.C.S., Prison Commission, Home Office, Whitehall, S.W.
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1885. Smith, R. Percy, M.D., B.S., F.R.C.P., M.P.C., 36, Queen Anne Street, Cavendish Square, W. (*General Secretary*, 1896-7.)
1858. Smith, Robert, M.D.Aber., L.R.C.S.Edin., Phoenix Lodge, Montpellier Drive, Cheltenham.
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1883. Spence, John Buchan, M.D., M.C., The Asylum, Colombo, Ceylon.
1875. Spence, J. Beveridge, M.D., M.C. Queen's Univ., Medical Superintendent, Burntwood Asylum, near Lichfield. (*PRESIDENT*, 1899-1900, formerly *Registrar*.)

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1862. Stilwell, Henry, M.D.Edin., M.R.C.S.Eng., Moorcroft House, Hillingdon, Middlesex.
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1886. Suffern, Alex. C., M.D., Medical Superintendent, Ruberry Hill Asylum, near Bromsgrove, Worcestershire.
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1897. Tait, James Sinclair, M.D., L.R.C.P.Lond., F.R.C.S.Edin., L.R.C.P. Edin., D.P.H.Edin., R.C.P.S.Edin., F.P.S.Glasg., Medical Superintendent, Hospital for Insane, St. John's, Newfoundland.
1904. Tate, Robert George H., M.D., D.P.H., Banstead Asylum, Surrey.
1857. Tate, William B., M.D.Aber., M.R.C.P.Lond., M.R.C.S.Eng., Medical Superintendent, Lunatic Hospital, The Coppice, Nottingham.
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1888. Thomas, Edward G., M.B., C.M.Edin., Haveringwell, Caterham, Surrey.
1904. Thompson, A. D., M.B., Ch.B.Glasg., Cheshire County Asylum, Parkside, Macclesfield.
1880. Thomson, David G., M.D., C.M., Medical Superintendent, County Asylum, Thorpe, Norfolk.
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1900. Tinker, William, M.R.C.S., L.R.C.P., Holloway Sanatorium, Virginia Water, Surrey.
1898. Todd, Percy Everard, M.B., Medical Superintendent, Pretoria Asylum, Transvaal, South Africa.
1903. Topham, J. Arthur, B.A.Cantab., M.R.C.S.&P.Lond., County Asylum, Chartham, Kent.
1901. Torney, George Parsons, A.B.Dubl., L.R.C.P., L.R.C.S.I., L.M., Medical Superintendent, County Asylum, Lincoln.
1896. Townsend, Arthur A. D., M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, Hospital for Insane, Barnwood House, Gloucester.
1904. Treadwell, Oliver Fereira Naylor, M.R.C.S.Eng., L.S.A., H. M. Prison, Parkhurst, I. of W.
1908. Tredgold, Alfred F., M.R.C.S., L.R.C.P., 2, Dapdune Crescent, Guildford, Surrey.
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1885. Tuke, T. Seymour, M.A., M.B., B.Ch., M.R.C.S.E., Chiswick House, Chiswick, W.
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1889. Turner, Alfred, M.D., C.M., Plympton House, Plympton, S. Devon.
1890. Turner, John, M.B., C.M.Aberd., Senior Assistant Medical Officer, Essex County Asylum, Brentwood.
1903. Turner, Oliver P., M.R.C.S., L.R.C.P., Warwick County Asylum, Hatton, nr. Warwick.
1878. Urquhart, Alex. Reid, M.D., F.R.C.P.E., Physician Superintendent, James Murray's Royal Asylum, Perth. (*Editor of Journal.*) (*Hon. Secretary for Scotland, 1886-94.*) (PRESIDENT, 1898.)
1900. Veitch, J. Ogilvie, M.B., C.M.Edin., County Asylum, Powick, Worcester.
1904. Vincent, George A., M.B., B.Ch.Edin., Assistant Medical Superintendent, St. Ann's Asylum, Trinidad, B.W.I.
1894. Vincent, William James, M.B.Durh., Assistant Medical Officer, Wadsley Asylum, near Sheffield.
1884. Walker, Edw. B. C., M.D., C.M.Edin., Medical Superintendent, East Sussex Asylum, Haywards Heath.
1896. Walker, William F., L.R.C.S.&L.M.Edin., L.S.A.Lond., Plas-yn-Dinas, Dinas Mawddwy, Merionethshire.
1898. Wall, Charles Percivale Bligh, M.B., Ch.B.Edin., Butterworth, Transkei, Cape Colony.
1877. Wallace, James, M.D., Visiting Medical Officer, 16, Union Street, Greenock.
1900. Walters, John Basil, M.R.C.S.Eng., L.R.C.P.Lond., 51, Devonshire Street, Portland Place, London, W.
1889. Warnock, John, M.D., C.M., B.Sc., Abassia, nr. Cairo, Egypt.
1895. Waterston, Jane Elizabeth, M.D.Brux., L.R.C.P.I., L.R.C.S.Edin., 53, Parliament Street, Cape Town, South Africa.
1902. Watson, Frederick, M.B., C.M.Edin., The Grange, East Finchley, London, N.
1891. Watson, George A., M.B., C.M.Edin., M.P.C., 6, Cambridge Road, Wanstead, N.E.
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1885. Watson, William Riddell, L.R.C.S. and L.R.C.P.Edin., Govan District Asylum, Hawkhead, Paisley.
1896. Watson, William Riddell Kemlo, M.A., M.B., C.M., 18, Montrell Road, Streatham Hill, London, S.W.

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 1897. Welsh, Gilbert Aitken, M.D., C.M. Edin., The Crescent, Garliestown, N.B.
 1880. West, George Francis, L.R.C.P. Edin., Medical Superintendent, District Asylum, Kilkenny, Ireland.
 1872. Whitcombe, Edmund Bancks, M.R.C.S., Medical Superintendent, Winson Green Asylum, Birmingham. (PRESIDENT, 1891.)
 1884. White, Ernest William, M.B. Lond., M.R.C.P. Lond., 40, Margaret Street, London, W. (*Hon. Sec. South-Eastern Division, 1897-1900.*)
 1903. Whittingham, George M., M.R.C.S., L.R.C.P., Earlswood Asylum, Redhill, Surrey.
 1889. Whitwell, James Richard, M.D. and C.M., Medical Superintendent, Suffolk County Asylum, Melton Woodbridge.
 1903. Wigan, Charles Arthur, M.D. Durh., M.R.C.S. Eng., Deepdene, Portishead, Somerset.
 1883. Wigglesworth, J., M.D., F.R.C.P. Lond., Rainhill Asylum, Lancashire. (PRESIDENT, 1902-3.)
 1895. Wilcox, Arthur William, M.B., C.M. Edin., Assistant Medical Officer, County Asylum, Hatton, Warwick.
 1900. Wilkinson, H. B., M.R.C.S., L.R.C.P., Assistant Medical Officer, Plymouth Borough Asylum, Blackadon, Ivybridge, South Devon.
 1887. Will, John Kennedy, M.A., M.D., C.M., Bethnal House, Cambridge Road, N.E.
 1902. Willis, Wm. Frederick, M.R.C.S. Eng., L.R.C.P. Lond., Wooddean, Grاتفord, Rangitichen, New Zealand.
 1901. Wilson, Albert, M.D. Edin., 1, Belsize Park, N.W.
 1904. Wilson, Geoffrey Plumpton, M.R.C.S., L.R.C.P. Lond., Kesteven Asylum, Sleaford, Lincs.
 1890. Wilson, George R., M.D., C.M., M.P.C., Medical Superintendent, Mavisbank Private Asylum, Polton, Midlothian.
 1896. Wilson, Robert, M.B., C.M. Glasg., Nailsworth, Gloucestershire.
 1897. Winder, W. H., M.R.C.S., L.R.C.P. Lond., D.P.H. Cantab., Deputy Medical Officer, H.M. Convict Prison, Aylesbury.
 1875. Winslow, Henry Forbes, M.D. Lond., M.R.C.P. Lond., 14, York Place, Portman Square, London.
 1897. Wiseman, David William, M.R.C.S. Eng., L.R.C.P. Lond., 300, Commercial Road, Portsmouth.
 1894. Wood, Guy Mills, M.B. Durh., 49, Gordon Square, London, W.C.
 1904. Wood, Martin Stanley, M.B., Ch.B. Vict., Royal Asylum, Cheadle, Cheshire.
 1903. Wood, Maurice Dale, M.D. Durh., B.S., Assistant Medical Officer, County Asylum, Haywards Heath, Sussex.
 1869. Wood, T. Otterson, M.D., M.R.C.P. Lond., F.R.C.P., F.R.C.S. Edin., 40, Margaret Street, Cavendish Square, W.
 1885. Woods, J. F., M.D., M.R.C.S., 29, Queen Anne Street, Cavendish Square, W.
 1873. Woods, Oscar T., M.D., L.R.C.S.I., Medical Superintendent, District Asylum, Cork. (*Hon. Secretary for Ireland, 1897.*) (PRESIDENT 1901.)
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 1898. Yeates, Thomas, M.B., C.M., Borough Asylum, Ryhope, Sunderland.
 1862. Yellowlees, David, LL.D., M.D. Edin., F.F.P.S. Glasg., 6, Albert Gate, Dowan Hill, Glasgow. (PRESIDENT, 1890.)

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- | | |
|---------------------------------|---------------------------|
| Adamson, Robert O. | Cooper, Alfred J. S. |
| Adkins, Percy, R. | Cope, George Patrick. |
| Ainley, Fred Shaw. | Corner, Harry. |
| Ainslie, William. | Cotton, William. |
| Alexander, Edward H. | Couper, Sinclair. |
| Anderson, A. W. | Cowan, John J. |
| Anderson, Bruce Arnold. | Cowie, C. G. |
| Anderson, John. | Cowie, George. |
| Andriezen, W. | Cowper, John. |
| Armour, E. F. | Cox, Walter H. |
| Attegalle, J. W. S. | 8 Craig, M. |
| Aveline, H. T. S. | Cram, John. |
| Ballantyne, Harold S. | Crills, G. H. |
| Barbour, William. | Cross, Edward John. |
| Barker, Alfred James Glanville. | Cruickshank, George. |
| Bashford, Ernest Francis. | Cullen, George M. |
| Begg, William. | Cunningham, James F. |
| Belben, F. | Dalgetty, Arthur B. |
| Bird, James Brown. | Davidson, Andrew. |
| Blachford, J. Vincent. | Davidson, William. |
| Black, Robert S. | 6 Dawson, W. R. |
| Black, Victor. | De Silva, W. H. |
| Blackwood, John. | Distin, Howard. |
| Blandford, Henry E. | Donald, Wm. D. D. |
| 7 Bond, C. Hubert. | Donaldson, R. L. S. |
| Bond, R. St. G. S. | Donellan, James O'Conor. |
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| Collie, Frank Lang. | Fox, F. G. T. |
| Collier, Joseph Henry. | Fraser, Donald Allan. |
| Conolly, Richard M. | Fraser, Thomas. |
| Conry, John. | Frederick, Herbert John. |
| Cook, William Stewart. | Gaudin, Francis Neel. |

- Gawn, Ernest K.
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 Grant, Lacklan.
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 Hewat, Matthew L.
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 Howden, Robert.
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 Kelson, W. H.
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 McGregor, George.
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 Mackenzie, John Cumming.
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 Mackenzie, William L.
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 McLean, H. J.
 Macmillan, John.
 5 Macnaughton, Geo. W. F.
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 Macpherson, John.
 Macvean, Donald A.
 Mallannah, Sreenagula.
 Marr, Hamilton C.
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 Martin, Wm. Lewis.
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 3 Robertson, G. M.
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 Yeoman, John B.
 Young, D. P.
 Younger, Henry J.
 Zimmer, Carl Raymond. </p> |
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- 1 To whom the Gaskell Prize (1887) was awarded.
- 2 To whom the Gaskell Prize (1889) was awarded.
- 3 To whom the Gaskell Prize (1890) was awarded.
- 4 To whom the Gaskell Prize (1892) was awarded.
- 5 To whom the Gaskell Prize (1895) was awarded.
- 6 To whom the Gaskell Prize (1896) was awarded.
- 7 To whom the Gaskell Prize (1897) was awarded.
- 8 To whom the Gaskell Prize (1900) was awarded.
- 9 To whom the Gaskell Prize (1901) was awarded.

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Part I.—Original Articles.

*The Problem of Heredity, with Special Reference to the
Pre-Embryonic Life.*⁽¹⁾ By W. LLOYD ANDRIEZEN,
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PART I.

Introductory.

SCIENCE, whose high aim it is to investigate Nature, to understand her secret workings, and thus to win for man the mastery of Nature, must set out with the conviction that Nature is intelligible, comprehensible, and conquerable. In the domain of biological science the problem of heredity occupies a position of great importance, one full of interest to every student of life. For the serious thinker who has not only looked backwards and studied the past of the human race but is inspired by ideals and desires for its future good, the subject of heredity provides an inspiring theme for contemplation and study. The development of our knowledge and the history of human endeavours to reach a complete understanding of the phenomena and conditions of heredity form one of the most interesting chapters in human evolution. Theories of heredity, like theories regarding other phenomena of life, have been

expressed in three sets of terms : theological, metaphysical, and scientific. It required no skilled observation of early man to see that in the act of fecundation the male furnished the seminal substance, whereas the female seemed to furnish nothing except the receptacle or "mould," in the form of the womb, within which the foetus was formed. Thus, what was more natural than to suppose that heredity was solely paternal, that the male element was the germ or seed, and the female organs the soil, in which, by some mysterious process, growth and development of the germ took place. This view of heredity has been expounded in the *Manava Dharma-Sastra*, one of the ancient sacred books of the Hindus (Delage, *L'hérédité*, 1903, p. 380). The same view, more or less modified according to the prevailing state of knowledge, was current among the ancient Greeks (Eristratos, Diogenes, and others). Galen and the school of philosophers of Alexandria also upheld the doctrine of the paternal factor of heredity, and thus constituted themselves the school of the Spermatists. Spermatist views prevailed for many centuries, and when towards the close of the seventeenth century Leeuwenhoeck discovered the presence of spermatozoa by the aid of the microscope, the spermatists had a season of rejoicing. Hartsoeker (1694) supposed that within the spermatozoon there was a little being, a human being, in miniature, with all its parts and organs complete, and figured a spermatozoon (highly magnified, of course) in which the little "homunculus" is to be seen seated within the "head" of the former with its arms and legs folded together in small compass, somewhat like a foetus *in utero*. The theory of the spermatists was not destined to remain in undisputed possession of the field. The rival school of Harvey in the sixteenth century taught that the semen or sperm did not fertilise the ovum nor even enter the womb, but that it fertilised the entire constitution of the mother by a sort of contagion which rendered her capable of acting as the stimulus of development for the ova in the uterus, and Descartes, in the early part of the seventeenth century, entertained the same views. The ovists now claimed that all the organs of the future being already existed, preformed in miniature, in the ovum, as opposed to the spermatists, who claimed the same preformed structure for the spermatozoon. To the ovists, therefore, the act of fecundation was only an impulse or stimulus to development communicated by the male

element to the ovum ; the male contributed nothing material in forming the parts and organs of the fœtus which existed, preformed in the ovum, so that the child was the product of the mother alone. Among the upholders of the ovist theory in the eighteenth century were Malpighi, Haller, Bonnet, and Spallanzani. Difficulties, however, arose over both these theories of exclusive inheritance, for the ovists could not explain how the offspring sometimes resembled the father rather than the mother, and the spermatists could not account for cases of close resemblance between the mother and offspring, while neither could, again, account for cases of the mixed or blended resemblance of the offspring to both parents. The theory of preformation gradually lost its interest and its vitality, and received its death-blow at the hands of Wolff (1759), who, not only by theoretical arguments but by indisputable facts as to the nature and process of development of the hen's egg, demonstrated the baselessness of the fancies of the pre-formationists, whether of the spermatic or ovarian school. Finally, there gradually grew up in the nineteenth century the modern view that the male and female (germ and sperm) cells of the respective parents contributed in equal, or nearly equal, proportions to the constitution of the embryo, and that the environment and nourishment of the fertilised ovum during its growth and evolution in the womb was a third factor of importance, especially in the case of those animals which went through a long period of intra-uterine growth and evolution, as in the case of man and the higher mammals.

The problem of heredity was roused to life from its slumbers by the embryological work of von Baer in the early half of the nineteenth century, by the philosophical inquiries of Herbert Spencer and the biological observations of Darwin in the sixth decade of the nineteenth century, and by the pathological investigations of Morel during the same period.

Significance of Heredity.

The term "heredity" connotes and comprises a number of so-called "laws" or generalisations drawn and formulated from a vast body of facts in human experience. Thus it has been observed from time immemorial that plants produce seeds and seedlings "after their kind"—that is, closely resembling the

parents in their general features of form and function and in many special features also ; that animals produce young after their kind ; and that man begets offspring which are the image and likeness of himself. These are facts of universal experience, and constitute a universal belief of mankind. Authors have sometimes dwelt on the subject and endeavoured to trace in their own inborn traits and peculiarities the characters of their parents. Thus says Goethe :

" Vom Vater hab' ich die Statur,
Des Lebens ernstes Führen ;
Vom Mütterchen die Frohnatur,
Die Lust zu fabuliren."

This constitutes the positive aspect of heredity. But a negative side also exists. For while on the one hand the positive uniformity of Nature's teachings in regard to heredity is striking and convincing enough, on the other hand it has been noted that Nature does not produce lawless freaks, that "grapes are not gathered from thorns, nor figs from thistles." The belief embodied as a "law" of Nature that in the case of every living species of plant and animal the offspring grows up and reproduces closely the co-ordinated characters of the phylum, order, class, genus, and species to which it belongs is the outcome of facts of observation, and of experience, which by their countless number, constancy, and uniformity, have acquired in our minds almost the aspect of necessity. Indeed many thinkers have professed to see in heredity a fatalism from which there is no escape. Man, they tell us, is not master of his fate ; he is the victim, the slave of heredity. "Science finds no ego or will," says Ross, an American writer, "that can maintain itself against the past. Heredity rules our lives like the supreme primæval necessity that stood above the Olympian gods. It is the last of the fates, and the most terrible. It is the only one of the gods whose name we know. We are possessed not by demons but by those who have gone before—our progenitors. These are the real ghosts which throng our lives, haunt our footsteps, remorseless as the furies. We are followed by the shades of our ancestors, who visit us not with midnight squeak and gibber, but in the broad noontday, speaking with our speech and doing with our deed. On the stage of life we actors recite speeches and follow stage direc-

tions, but the speeches and the directions were written for us long before we were born." Heredity thus casts its shadow over us and holds us in its remorseless grip ; it has not only its purely scientific aspect but its practical bearings on human life.

The classification of the data of human knowledge and experience in regard to heredity may be made under the following headings : (*a*) the breeding and rearing of animals, and especially of those animals which are situated high in the scale of evolution among the vertebrata ; (*b*) the cultivation and propagation of plants (horticulture and agriculture) ; (*c*) the reproduction by man of his own species over a period of many thousands of years. The uniform and consistent experience of mankind in these matters, accumulated during thousands of years, constitute the basis on which has been erected the doctrine of heredity. During the nineteenth century efforts have been made to reduce the vast and extensive data into systematic groups of facts, to examine these facts critically, to eliminate errors and fallacies, and thus to establish an unshakable foundation for the laws of heredity in man and animals, in both health and disease. We have already alluded to the work of Herbert Spencer, Darwin, and Morel in this connection. While philosophers and biologists like Spencer and Darwin concerned themselves mainly with animals and plants and with the normal aspects, so to speak, of the problem of heredity, Morel and the school of neurologists, physicians, and pathologists, whom he has inspired, have cultivated and studied the medico-biological problems of heredity. The vast growth of medical and pathological knowledge in the closing years of the nineteenth century has left us rich with the special investigations into pathological heredity embodied in the works of Charcot and his pupils of the Salpêtrière School, Magnan, Dejerine, Legraine, Möbius, Lombroso, Ferri, Benedikt, Bruce Thompson, Wigglesworth, and a whole host of other workers.

Recapitulating the data and methods for the study of heredity, we may arrange them under the following heads of study : (1) animal breeding and rearing, including the study of hybrids ; (2) human propagation and the transmission of physical, mental, and moral traits ; also genealogical studies ; (3) botanical investigation of plants and their variations ; (4) human and

comparative embryology in regard to the light it throws on the processes of development and descent ; (5) the pathological aspects of heredity as shown in the transmission of disease and degeneracy in the human race.

The Track of Heredity and the Departures therefrom or Variation.

Continuity of cell-life, or of the living protoplasm, in some way not as yet fully understood, from parent to offspring, is regarded as the fundamental process of heredity. It is a phenomenon of complex character and difficult to express in exact anatomico-physiological terms in so far as it concerns man and the higher organisms. For the process is a compound or complex of several factors—a *continuity* which is only partial and particular, and which in many cases is interrupted by discontinuity, a *transmission* which is itself seldom entire but is usually modified in the process of transmission, and a *development* (ontogenesis) which is affected by malign and benign agencies, whose influence is often certain, though the exact sequelæ may be unpredictable. It is thus evident that but little can be predicated with certainty as to the final characters of the product—the net evolutionary result—of such complex and variable factors. Thus instances may and do occur, not infrequently, in which anatomical characters or peculiarities which we in our ignorance call “trifling” may be hereditarily transmitted in certain families from generation to generation. Peculiarities of gait and of gesture are often thus inherited. Handwriting has been known to exhibit similar peculiarities in father and son, while in some instances a special feature of the face, or formation of the hair, or “birth-mark” may reappear so markedly in successive generations as to become a notorious family characteristic. In this connection reference may be made to what are now matters of general historical knowledge, such as the Bourbon nose of the French royal family, the characteristic Napoleonic features, and the Hapsburg lip of the royal family of Austria, which have been noted in several generations of each of these imperial and royal families. Or going further afield and taking consideration of Ethnic types, we may call attention to the Semitic nose of the Chosen People, the slanting orbit and eyebrow of the Celestial, the prognathism

and thick everted lips of the Negro, the tablier and steatopygia of the Bushmen and Hottentots. Such special characters of families and races, as well as those recorded above in reference to the imperial families of Europe, are frequently "prepotent" in hereditary transmission. Breeders of stock are well acquainted, from experience, with the prepotent characters of the males (sires) or females (dams) they breed from, and according to the market values of such characters a scale of charges is set up by the owner of the sire or dam whose service is desired. In regard to prepotency of features I am myself acquainted with a family whose type of jaw and under-lip formation unmistakably recall the Hapsburg type, but who have not the least relationship to the Hapsburgs of Austria. The feature is preserved with remarkable persistency, being present in the grandfather, in most of his sons and daughters, and in each of the seven families of children of the third generation descended from three sons and four daughters of the second generation. [An excellent *résumé* of some of the classical instances of prepotency is given by Vernon in his *Variation in Animals and Plants* (1903), pp. 147-152.]

But while heredity does operate with such prepotency in regard to particular traits and features, it would not be obviously for the good of the race or family if heredity always operated with such unyielding rigidity and fatalism as is shown in prepotency. For in a world wholly and exclusively dominated by its iron laws organisms would be incapable of progress and of adaptation outside the rigid grooves laid down, and existence would be rendered impossible in an environment where plasticity, adaptability, and progress were necessary for the continuance of the very life of the individual. Organisms which cannot vary, and vary in favourable directions, so as to adapt themselves to altered conditions of habitat and environment must *ex necessitate* perish. And thus, indeed, as the history of the geological record shows us, have species, genera, and families of plants and animals perished in the world's past, leaving no descendants at the present day. If heredity is, for convenience of expression, conceived as a power or force, we cannot accept it as the one power which wholly and exclusively dominates the succession of generations of plants and animals in this world. The fatalism and rigidity of heredity must be continually relaxed and tempered with the freedom and

plasticity of variation. Only under the compromise and conjoint operation of these two would there be produced offspring and individuals of a practically perfect or progressive type, capable of survival under the many and varying conditions of the physical, material, and social environment, because possessed of the two-fold capacity of general constancy to the generic and specific type of its class (the outward expression of heredity), and possessed also of the capacity of varying and adapting itself to changing condition and higher evolution (the outward expression of variation). Variation is thus as much a necessity of life, as indispensable and inevitable a factor in the progressive evolution of newer and higher forms of life from the older and simpler, as heredity is for the conservation of generic and specific types. Thus only has been rendered possible that majestic evolution of living forms of plants and animals which has characterised our cosmos. The almost universal tendency to foster conservation of action and habit proper to the type, to keep variation, in other words, within conservative limits, is seen in the feeding and tending of the young, and to some extent educating them, among all higher animals (birds and mammals). Among social species this is a factor of particular importance. For this care, tending, and instructing is not merely a system by which waste is prevented, but it prevents the young generation from deviating widely from the line of development it has begun to follow. That heredity and variation indissolubly co-operate as factors in evolution must now be regarded as established beyond a doubt. But the relative values assigned to the co-factors heredity and variation differ in the estimates of different authors, and the difficulties of the problem are increased when we have to do with special complicating factors which make their appearance when dealing with the study of man—factors of “artificial” nature, which constitute “civilisation,” on the one hand, and the pathological factors of disease and degeneracy on the other. For these factors potently affect and influence his life from the cradle to the grave in the highly complex, varying, and unstable environment in which he has placed himself, a being apart from the rest of the animal creation. Let us now consider a few facts in regard to variation before proceeding further.

When we study the adult progeny of a single pair of human

parents we notice that they differ from one another as regards any one character within a certain limited range. Occasionally gross obesity or on the contrary a lean and spare habit may affect different members of the offspring. But excluding extreme variations, due probably to pathological conditions, it is probable that living even under approximately equal conditions of life, diet, and work, the weights of the individual members would vary from each other, and from the mean at all periods of life. On the other hand, stature is a quantity that exhibits less variation than weight. Excluding again the effects of diseases of metabolism which may give rise to extremes of stature, *e.g.*, dwarfish arrest of growth in rickets and cretinism, or exaggeration of growth in gigantism and acromegaly, it may be stated that under conditions of average health (a vague criterion certainly, but the best practical one) the offspring at different ages will exhibit variations of stature. From some inquiries and studies which I have conducted in this direction recently, I am inclined to the view that weight is a slightly more variable quantity than stature in families, largely owing to conditions which operate throughout life in the one case (weight), whereas they cease to operate early in the other (stature). For stature is a matter of growth (quantitative), which is not nearly so much influenced by conditions of diet, habit, work, as is weight. Moreover fixity of stature is attained early (practically at the twenty-second year), and then no circumstances of food, work, habit, or even disease will alter stature, since the hard bony framework has attained fixity and cessation of growth in the long axis of the body. Nothing can make it an inch shorter or longer. What conclusion do we then reach as to the result of our comparison? We conclude that whereas a plastic tissue or structure like the connective tissue of the body, which harbours the deposition of fat and acts as a food or fat store, is highly susceptible to variation, and can be made to vary in response to circumstances, on the other hand, in the osseous framework which determines stature we have a rigid and refractory mechanism which has early lost its plastic power, and which of necessity has preserved (because it *should* preserve) its dimensions unchanged in an animal body, which is a mechanical-muscular apparatus on the correct and steady working of which life essentially depends. Hence the mechanical basis of the framework varies but little. When we

take other characters, such as the anatomical structure of the hair, the complex shape of the ear, and the colour of the eyes, we find that these are more constant throughout life and less variable than weight or stature. According to the researches of Sir Francis Galton, the lines and markings on the fingers and palms of the hand also exhibit a remarkable constancy and invariability in each individual from childhood to old age, and no two persons' hands are identical in their marking and patterns.

It is important in the scheme of nature that all the tissues and organs of the body should not develop at an equal pace, that some tissue-elements and organs should remain plastic, changeable, educable so to speak, and modifiable by the environment throughout nearly the whole of a lifetime, while other organs and structures should attain early to rigidity and lose their plastic properties of growth and adaptation, the whole aggregate of relatively plastic and relatively rigid characters having being co-ordinated in the course of evolution for the continued existence and well-being of the organism in question. Here, for instance, we may refer to the advantages of the endoskeleton over the exoskeleton as a bio-mechanical apparatus. The exoskeleton, like armour, sadly limits the wearer of the same. It limits the growth of the crustacean or insect enclosed in its rigid armature, and during the whole period of growth of the body periodical castings off (ecdysis) of the shell are necessitated. At such times and while the new armour is being formed, the naked body is exposed to injury and dangers of many sorts, while the drain on the nutrition of the system for the re-growth of each new shell or set of armour is serious. These drawbacks do not exist in the case of the vertebrata, whose endoskeleton furnishes a superior bio-mechanical apparatus, and whose unarmoured and supple skin surface gives them larger areas of sensibility with higher potentialities of kinæsthetic development. Hence we find animals of this type the winners in life's race—fishes of the sea, birds of the air, and especially mammals of the land.

Thus we see the *raison d'être* of the early development of the endoskeletal apparatus in the direction of fixity and stability of structure and of stature, the necessary physical basis for the perfect working of the neuro-muscular apparatus. On the other hand, a highly plastic and educable cerebral system, super-

posed on a lower bulbo-spinal motor mechanism or *δουλοσ* which has already at birth attained considerable advancement in structure and function, is obviously also a desideratum for the highest animals and man. Such a desideratum is realised in the nervous structures in question, in increasing degrees of perfection, as we ascend the scale of the mammalia from the lower forms up to man. Man is thus a creature of hereditary endowments which unfold themselves at very different periods of his life. The nervous, and especially the cerebral, organisation of man, which constitutes the crown and acme of evolution in the cosmos, is undergoing growth and development in complexity of structure and function from the intra-uterine stage to the close of the period of adolescence—a period of thirty years. This great organ is the bearer of hereditary endowments of the most varied and manifold character. The vast material for study and the richness of this field largely unexplored as yet by workers on the subject of variation should tempt many to this study. The whole sphere of the insanities, neuroses, and psychic degeneracies affecting the human race offers such a field for the study of heredity and variation as would well repay exploration. A study of the pathological aspects of variation will also introduce us to the subject of degeneration, an element or factor of variation which, though neglected by zoologists, is of the utmost practical and scientific importance to the physician and the alienist. The whole of the subject of variation in its pathological aspect promises to grow before long into a problem which will demand the serious attention of society. As I have stated elsewhere (“The Newer Aspects of the Pathology of Insanity,” *Brain*, 1894, pp. 549–550): “the insanities, like other variations in the organism, are subject to natural selection, and may be perpetuated in the race through favouring causes, and in this way hereditary qualities and potentialities for good and evil leave their seams and tracts in the organisation of the human brain, rendering it potent under suitable stresses of the environment to issue in insanity, vice, and crime.”

Regression.

Among recent workers on the problem of heredity Sir Francis Galton has laid special stress on a principle or law of develop-

ment which he calls "Regression towards the mean standard." "The laws of regression tell heavily," says he, "against the full hereditary accentuation of morbid tendencies The law is evenhanded: if it discourages the extravagant hopes of a gifted father that his children will inherit his powers, it no less discourages extravagant fears that they will inherit all his weakness and disease." As illustrations of regression may be mentioned the following: A number of sweet-pea seeds are collected from plants which have been grown from *seeds of known size*. The peas thus collected are found to be on an average more mediocre (*i. e.*, closer or more approximately equal to one another in size) than the parent seeds. Data regarding the stature of families were collected by Galton, by means of which he was not only able to substantiate the fact of regression, but to calculate with some approach to accuracy the actual amount of regression occurring in members (ancestors, descendants, and collaterals) of families. More recently Karl Pearson, who has investigated the same side of the question and attempted to express the deductions in the form of a mathematical formula (*Philosophical Transactions*, 1896, A. p. 253) has concluded that the "co-efficient of regression was the ratio of mean deviation of offspring of selected parents from the mean of all the parents." The law of regression was applied by Galton not only to the regression between parents and sons, and grandparents and grandsons (lineal regression), but also to that between brothers and brothers (collateral regression), and from a careful study of the data and measurements, collected mostly by himself, he was able to assign certain values to those two forms of regression. Pearson also investigated the subject mathematically, and found that, starting from Galton's law of ancestral heredity, it was possible to calculate the co-efficients of regression (or correlation) between an individual and any of his kinsmen, either direct or collateral. He calculated the co-efficient of regression between "mid-parent" (*i. e.*, the mean of the two parents) and son to be 0.6, or somewhat less than that found by Galton. Between grandparent and grandson it was 0.15, between great-grandparent and great-grandson it was 0.075. Between brothers it was 0.4, or considerably less than the co-efficient found by Galton. Although differences exist as to the actual value assigned to these factors, the differences are explicable, the agreement in

general is closer, and it may be accepted that Galton's general conclusions approximately represent the truth. It may, perhaps, be asked how it is that if regression acts continuously on the series of generations succeeding any given generation, the members of the later generations do not tend to greater and greater rigidity of type with incapacity for variation. The reason for this is shown in the fact, borne out by Galton's tables of statistics given in his *Natural Inheritance*, p. 208, representing the numbers of adult children of various heights born of 205 "mid-parents" of various heights. A study of this table shows not only that regression exists, but that the offspring produced by these mid-parents are, as a whole, no less variable than the "mid-parents" themselves. The offspring are, in fact, slightly more variable in stature, since a mid-parental stature, being made of two parental statures, is obviously on an average less variable than either stature individually. Thus whereas the mid-parents vary roughly in height between about 74 and 64 inches, the children vary between 75 and 62 inches. The table therefore shows that though the children are, on an average, more mediocre than their parents, yet the general variability of the race (as regards stature) is not diminished. The contents of the table also contain special items as regards the progeny of tall, medium, and short parents. Tall parents have many tall children, a moderate number of medium children, and a very small number of short children; medium parents have many medium children, and moderate numbers of tall and short children; short parents have many short children, a moderate number of medium children, and a very small number of tall children.

The law of regression may be considered to be in large measure supported and substantiated for sweet-peas, for man, and for Basset hounds, largely owing to the observations of Galton and his followers who have investigated the subject statistically. The law is of great value in the breeding of pedigree stock and the like on a large scale; but it is a law of averages as regards inheritance and is in reality a logical sequel of the law of ancestral heredity, proving that all ancestors, however remote, are able to leave the impress of their individuality on their descendants in diminishing proportion to their remoteness in the line of descent. Galton's law of ancestral heredity (*Proc. Roy. Soc.*, vol. lxi, p. 401, 1897) is that the

two parents contribute between themselves one half (or 0.5) of the total heritage of the offspring, while the four grandparents contribute one quarter (or 0.5)², the eight great-grandparents one eighth (or 0.5)³, and so on. Thus the sum of the ancestral contributions is expressed by the series ($\frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16}$ ), which, being equal to 1, expresses the whole heritage.

Mutation.

Mutation is in one sense the very antithesis of regression. It plays an important part as one of the co-factors in the phenomena of life alongside of heredity, variation, and regression. Studies and observations of the variations occurring in plants and animals, especially under domestication or cultivation or other conditions different from those which prevail in the wild state, show that mutations may occur not infrequently in both the animal and plant kingdom. Mutations occur while the plant or animal is young or rudimentary, and probably before or during the embryonic state. Continuous variation occurs (for such is the definition of "continuous") only in accordance with the mathematical law of probability as laid down by Quetelet, and involves only the size, weight, or number of the organs or parts which are concerned in it, but does not include variations in quality. The character of a plant as a whole, says De Vries, is composed of definite units. These definite units, or "elementary characters," of the species are associated with material bodies, each "elementary character" having its special form of material body. Transition states between these elementary characters are rare, as those between chemical molecules. (*Journ. Roy. Hort. Soc.*, April, 1901.) This is the view adopted by De Vries as to the difference between continuous variation and mutation. "Mutations," says MacDougal (*American Naturalist*, November, 1903), "ensue in the rudimentary state of the individual. . . . Mutative alterations are not the direct result of external factors and are perfectly transmissible." The subject of mutation first attracted attention in Europe probably when in 1690 Sprenger, the apothecary of Heidelberg, who had under cultivation in his garden plants of the species *Chelidonium majus*, noted the sudden and unexpected appearance

of a type with lacinate leaves among the plants in his garden. "This form, which is also distinguished by other characteristics, was found to be constant and self-maintaining in competition with the parental type, and has remained distinct to the present day without artificial selection, and no specimens have ever been seen which could not be traced back to the original lot of individual plants in Heidelberg." Darwin referred to the subject of discontinuous variation or mutation and came to the conclusion that new forms (permanent) which arose by "sport" or mutation were not self-maintaining, and therefore died out. Dollo, according to De Vries, was the first to announce definitely the conclusion "that species might originate by mutation" (1893). Bateson (*Materials for the Study of Variation*, 1894) summarises his own views in the following words: "It [the evidence of variation] suggests in brief that the discontinuity of species results from the discontinuity of variation." Korschinsky has published a most valuable historical account of the better authenticated instances of types which have originated by mutation (*Flora*, 1901, vol. lxxxix, pp. 240-363). His paper is a complete critical digest of the facts, and forms a logical prelude to the great work of De Vries. De Vries was the first to make a well-regulated series of scientific observations on the origin of new types or mutations in the cultivation of certain species of plants of the genus *Oenothera* (Natural Order Onagraceæ). The parent species, *Oenothera lamarckiana*, from which De Vries obtained mutant forms, has been, says MacDougal, "constant in its characters in cultivation in Europe and America, and also when growing wild. This type is not identical with any known family of the American flora, and is most nearly allied to *Onagra biennis grandiflora*, from which, it is suggested, it might have arisen by mutation. The mutant derivatives of the parent form, *Oenothera lamarckiana*, are found to be constant in their characters, with no connecting link or intergrading (transitional) forms, as illustrated by the cultures of the plant *Oenothera nanella* and *Oenothera rubrinervis* in the New York Botanical Gardens during 1902-1903. . . . The mutants are clearly separable from the parents and from each other by physiological and taxonomic standards. Further, the specific character of the mutants was borne out by their behaviour when hybridised with one another."

So far as the origin of mutations is concerned, it seems

clearly established that the pre-mutative alterations affecting seed-plants ensue in the *vegetative* and *sexual* cells previously to the formation of the embryo in which they first appear. The facts of discontinuous variation, now numerous, well-observed, and authentic, have been used by De Vries to build up a theory or generalisation that new species can and do sometimes originate by mutation. "New types of specific rank, taxonomically separable and physiologically distinct and constant have (without intergrading and connecting forms) arisen in *Oenothera* and others by discontinuous variation." That mutation is a method of evolution in the genesis of species is proven, but it will probably take us some decades of further observation before we can fully estimate the position-value of mutation as a factor among the various co-factors of the evolution process. As regards the origin or genesis of species, we may say some have originated by mutation, some have arisen as the result of hybridisation, others give evidence of having arisen by the prolonged natural selection of small continuous variations of a favourable character, while others, again, have arisen under pathogenic conditions, and given rise to descendants of degenerate character which usually tended to perish in a few generations. Nothing in the nature of living organisms demands that all species should have originated or become extinct in the same manner, or that one single factor—one single method of procedure—should have been followed. The study of "mutations" of pathogenic origin show us that monstrosities and malformations of embryonic development comprise the largest number of these. They are extreme variations from the normal path and are well known to physicians. These pathological variations, however, will be considered separately in a later chapter. Restricting ourselves here to mutations in their normal biological aspect only—to those mutative forms of plants and animals which may form the starting-points of new species—the following items of information are added to the foregoing.

Mutations occur in animals, wild and domestic. Among examples of this are the *ancon* or otter-like breed of sheep which arose as a "sport" or mutation in Massachusetts, and of which an account (too well known to require quoting here) is given in Darwin's *Variation of Plants and Animals* (vol. i, p. 457, second edition). Darwin has with indefatigable

perseverance traced out and collected other instances also, *viz.*, the mauchamp breed of sheep, the niata cattle, turn-spit and pug dogs, jumper and frilled fowls, short-faced tumbler pigeons, hook-billed ducks, etc., all "sports" or mutations which "suddenly appeared in nearly the same state as we now see them." "So it has been," adds Darwin, "with many cultivated plants." The race of Manx cats seems to afford the example of a mutation (the tailless condition associated with certain other minor correlative characters) which is prepotent in transmission to the offspring. Brookes refers (*Heredity*, 1883, p. 298) to the spike-horn buck of the Andironacks which arose as a mutation in a wild species. A. G. Mayer records a newly arisen species of *Leptomedusæ*, discovered at Tortugas, Florida, in which the individuals are marked by *pentameric* radial symmetry instead of the normal or orthodox *terramerous* symmetry of these *Medusæ*, the mutation extending to radial canals, tentacles, gonads, lips, etc. The angle of divergence between the radially arranged system of bodily structures in this mutative species is 72° as against 90° in the other *Eucopidæ* (*Scientific Bullet.*, Brooklyn Institute, 1901). The same author has studied the colour patterns of *Lepidoptera* (butterflies and moths) as influenced by racial tendency and natural selection. Out of 1173 species (including 453 of *Papilio*, 30 *Ornithoptera*, 643 *Hesperidæ*, and 47 *Castina*), he finds that the characteristic differences between the species of a genus, or between the genera of a family, and the peculiar conditions prevalent in each, on the whole support the view that new species have often arisen by mutative variation, independent of the environment. De Varigny has recorded (*Experimental Evolution*, 1892, p. 101) a wonderful example of variation by cultivation of a plant, *Tradescantia virginica*, from the original trimerous type to tetra-, penta-, hexa-, hepta-, and di-merous forms. The famous case of mutation in the peacock may be referred to here (Darwin's *Plants and Animals under Domestication*, vol. i, p. 290). Among the peacocks belonging to Sir J. Trevelyan's flock, which was composed entirely of the common species, there arose suddenly—*i. e.*, by mutation—a new form, the black-shouldered peacock (*Pavo nigripennis*). The new form increased "to the extinction of the previously existing breed," and was regarded by several leading authorities as a distinct "species." And yet this mutative form of the peacock, the

black-shouldered form, as referred to, has been known to have had a similar mutative origin five times in England, says Darwin. There is no real reason, therefore, why such changes should not occur also at times among plants or animals living in the wild state. It may be that ocular demonstration of the mutative origin of wild species is almost impossible to obtain. Negative evidence proves nothing in such a matter. We have witnessed mutations repeatedly occurring in plants and animals—among cultivated plants of field and garden and among the domestic animals and the flocks and herds of man; for these are “familiar friends,” and any mutations or “sports” arising among them are at once detected, while their further developmental history can be followed. But if a mutative species were to spring into being in the wild state, as the *Ancon* sheep or the *Pavo nigripennis* did under domestication, how could the fact of its occurrence in wild nature be ascertained and established beyond a doubt? If the first members of a species newly arisen by mutation were found, the fact of their discovery would tell us nothing as to their mutative origin; the naturalist or explorer who made the discovery would record it as a rare or hitherto undiscovered species, and there the matter would end.

Among the lowest forms of vegetable life mutative variations seem to occur with facility under artificial conditions of culture as well as in a state of nature. Thus Lepschkin, in the course of his investigations on certain forms of yeast (*Schizosaccharomyces*), obtained a new form, probably mutative, which, had it been met with in nature, he says, would have been placed rather in the eudomyces than in the saccharomyces (*Centr. für Bakteriologie*, 1903, p. 145). Raciborski has shown that *Basidiobolus ranarum*, a mould fungus which is easily cultivated, may by growth in a one *per cent.* solution of ammonium sulphate or a ten *per cent.* solution of ammonium chloride develop into and pass through a “palmella” stage, isolating itself as spherical cells with thick walls, etc.—a phenomenon which is unknown in the case of any other plant of the mould fungi. Similarly, Chodat and Huber have found that in an alga such as *Pediastrum* the normal formation of daughter colonies does not occur in rich—*i. e.* concentrated—culture media, and that the cells are liable to become metamorphosed into large hypnocyts (*Bullet. Soc. Botanique*

Suisse, 1895). Richter states also that he has seen abnormalities produced and perpetuated in other fresh-water algæ which have been exposed in cultivation, for one or two generations only, to the influence of salt water (*Flora*, 1894, p. 4). As a general summary of facts it may be stated that unicellular plant organisms tend to undergo mutation and to transmit their mutation with greater facility than plants of higher and more stable organisation.

Mutations also occur with special frequency and facility in some of the higher plants, while others are scarcely known to vary at all. There is a wide difference in this respect even among cultivated plants; some species vary enormously and others but little. This variability is to all appearance "not correlated with age of cultivation, degree of cultivation, or geographical distribution," says Professor Bailey, of Cornell University. As the result of extensive horticultural studies and experiments (*Proceedings of the Amer. Assoc. for the Advancement of Science*, 1894; *Botan. Gazette*, 1894, p. 381; and *The Survival of the Unlike*, 1896), he adds that "the chief antecedent factor in directing this variability is probably the age of the type or species. New types in geologic time are polymorphous: old types are monomorphous and finally tend to extinction." The most flexible or plastic types of cultivated plants are such as have probably not yet reached the zenith of their evolution—herbaceous plants, like cucurbits and begonias; while many species of the orders Ranunculaceæ, Onagraceæ, and Polygonaceæ, growing in the open, wild or cultivated, show variability in a high degree. On the other hand, the various kinds of cereals (Gramineæ), which are old types, have practically reached a condition of stability, and under cultivation show but a minimal tendency to variation.

Mutations or "sports" may occur in the branches of plants, starting probably as "bud-mutations." The term "bud-variation" has often been used for such, but considering that the changes manifested are true mutations or "sports," the term "bud-mutation" seems preferable on the ground of accuracy. These bud-mutations occur in full-grown plants in their flower-buds or leaf-buds. A number of classical examples of bud-mutation are now known, *e.g.* the development of nectarines (by mutation) from the flower-buds on the branches of a peach-tree, the production of moss-roses from the buds on the branches of a

common rose, the appearance of russet apples on the branches of a Greening apple-tree. The same branch of a peach-tree may bear both peaches and nectarines, and of an orange-tree both oranges and lemons. Sports or mutations may occur also in the foliage leaves, the place of normal shoots and leaves being taken by such mutative forms as variegated or cut-leaved shoots and weeping leaves on otherwise normal trees. These bud-mutations of plants are no more intelligible than the mutations arising from seed-production and the cultivation of seeds. Mutative variations may arise in flower buds and leaf buds, in stems, aerial and subterranean, from bulbs and tubers, or even, says Bailey, from the adventitious buds of roots. The characters of the mutations are as various and marked as those originating from seeds. "If you ask me why it is that the nectarine was produced as a 'sport' upon the branch of a peach-tree, I will ask you why it is that nectarines have also been produced from peach-stones. The answer to the one answers the other." A further proof that bud-mutations and seminal variations are essentially similar in kind and quality lies in the practical fact that selection can be practised for the improvement and definiteness of forms originating by either means. Thus Darwin records the observations of Mr. Salter, who has brought the principle of selection to bear on variegated plants propagated by buds, and has thus greatly improved and fixed several varieties. (The plan or *modus operandi* of the horticulturist is described on p. 91 of Professor Bailey's work, but need not be quoted here.) By following with perseverance this plan during three or four successive seasons a distinct and fixed variety can generally be secured. This practice, says Bailey, is now well known to gardeners, but we see that Nature, with her vast and unlimited resources, may "select" in the same manner here and there. Cultivated plants not only tend to develop sports in the form of variegated, cut-leaved, or weeping shoots, but colour variation and "doubleness" (including ligular variations) may sometimes predominate. Many of our best known roses, carnations, crysanthemums, violets, and other garden plants have originated as bud-sports. The fact is so well known that critical gardeners are always on the alert for such variations. Every gardener will recall the "sporting" tendencies of the *Perle de Jardins* rose, and the fact that several commercial varieties have sprung from it by bud-sporting. As early as 1865 Carrière, an eminent

floriculturist who had paid great attention to this particular subject, gave a descriptive list of 150 named bud-sports of commercial importance, and remarked at length upon their frequency among cultivated plants. Since the record of 150 (commercial) varieties of plants as known commercially in France, and which had originated as bud-mutations according to the list prepared by Carrière (1865), there has been an increase of the horticultural variations of like origin, and it has been estimated by Bailey that there were "no fewer than 300 named horticultural varieties grown at the present moment (1895) in this country (the United States of America) which had a like origin." It is also known that there are a number of species of plants, in which seeds are practically unknown, and which yet run into many varieties, as the pine-apple, banana, and bread-fruit, and the various onions and horse-radishes, as also the several varieties of weeping willows which never bear seed in the United States and are only propagated asexually.

Mutations of the nature of peloria may in many plants be perpetuated by seed, as also "doublings" and malformations. Thus in the case of *Celosia cristata* (Nat. Ord. Amarantaceæ), the well-known coxcomb, a form of malformation (fasciation) which occurs as a sport can be transmitted. Goebel writes (*Science Progress*, October, 1896): "In plants with which I experimented I found that the transmissibility of the fasciation by heredity is absolute; even when I cultivated the plants in sterile sands they always exhibited this phenomenon, even in the second generation." De Vries states that the facts recorded in his work (*Die Mutationstheorie*, 1901) show "that species originate by sudden sports, and that each of these occurrences is a true physiological process; that all such suddenly produced forms are separated from one another by as sharp and numerous characters as are most of the so-called minor species." In concluding this chapter, and with it the first part of this memoir, I wish to state that I conclude that variation is at least of three, if not of four, kinds—*viz.*, the continuous variation which occurs according to the law of probability in organisms, and manifests itself in generalised or localised fashion; the mutations which may occur in a state of nature (wild) or of civilisation (domestication); and pathogenic variation, which is evidently a different phenomenon (often indicated by physical and psychical "stigmata" of degeneracy),

which is the peculiar inheritance of civilised man. To these may perhaps be added meristic variations which border on the pathogenic. These four are probably distinct processes.

PART II.

The Pre-embryo.

In the human species and in all the various classes of mammals and vertebrates, reproduction takes place by the sexual union or conjugation of two gametes, the sperm-cell and the germ-cell. These cells when they have matured within the parental body are capable of undergoing no further development individually: each cell has reached a condition of equilibrium which tends to terminate in dissolution if the two are not able to unite. When, however, by the act of sexual union these gametes are enabled to conjugate, this equilibrium is destroyed, a new condition of affairs is set up, a new evolution is initiated, *viz.*, the genesis of a new being—the embryo. The embryo is developed from the fertilised ovum by growth, cell-multiplication, and differentiation of structure, these processes being carried on in an environment which differs for the different classes of animals, but is constant for each species. The environment may in some cases be the sea, or the water of a river, lake, or pond, into which the ripe ova are extruded by the female. The ova may be fertilised by the spermatozoa of the male during the process of extrusion of the ova (*e. g.*, the common frog), or they may be “spawned” over by the male immediately after the female has laid them (*e. g.*, many fishes). In all such cases the impregnated ovum has for its environment the fresh or salt water of the ocean, river, lake, or pond which constitutes its habitat. The individual ova are clothed with a membrane (*zona pellucida*) and often embedded in a gelatinous envelope in the form of strings or loose masses, so that the rigour of the environment is modified by the jelly-like envelope. This envelope is derived from the parent during the passage of the ovum from the ovary through the oviducts to the exterior, being a provision of Nature to secure for the growing ovum in the initial stages of development and cell-division a special, though temporary, physico-chemical environment, the composition for which is uniform and constant for each species.

The earliest steps in embryogenesis are thus taken under conditions as favourable and proper to each species as possible; indeed, in this as in other respects, we find that as we ascend the scale of animal life, adaptive mechanisms of a more perfect condition are provided for the same purpose. Thus we have the albumen, membranes, and shell of the egg in the case of reptiles and birds on the one hand, and the provision of a uterus for mammals on the other.

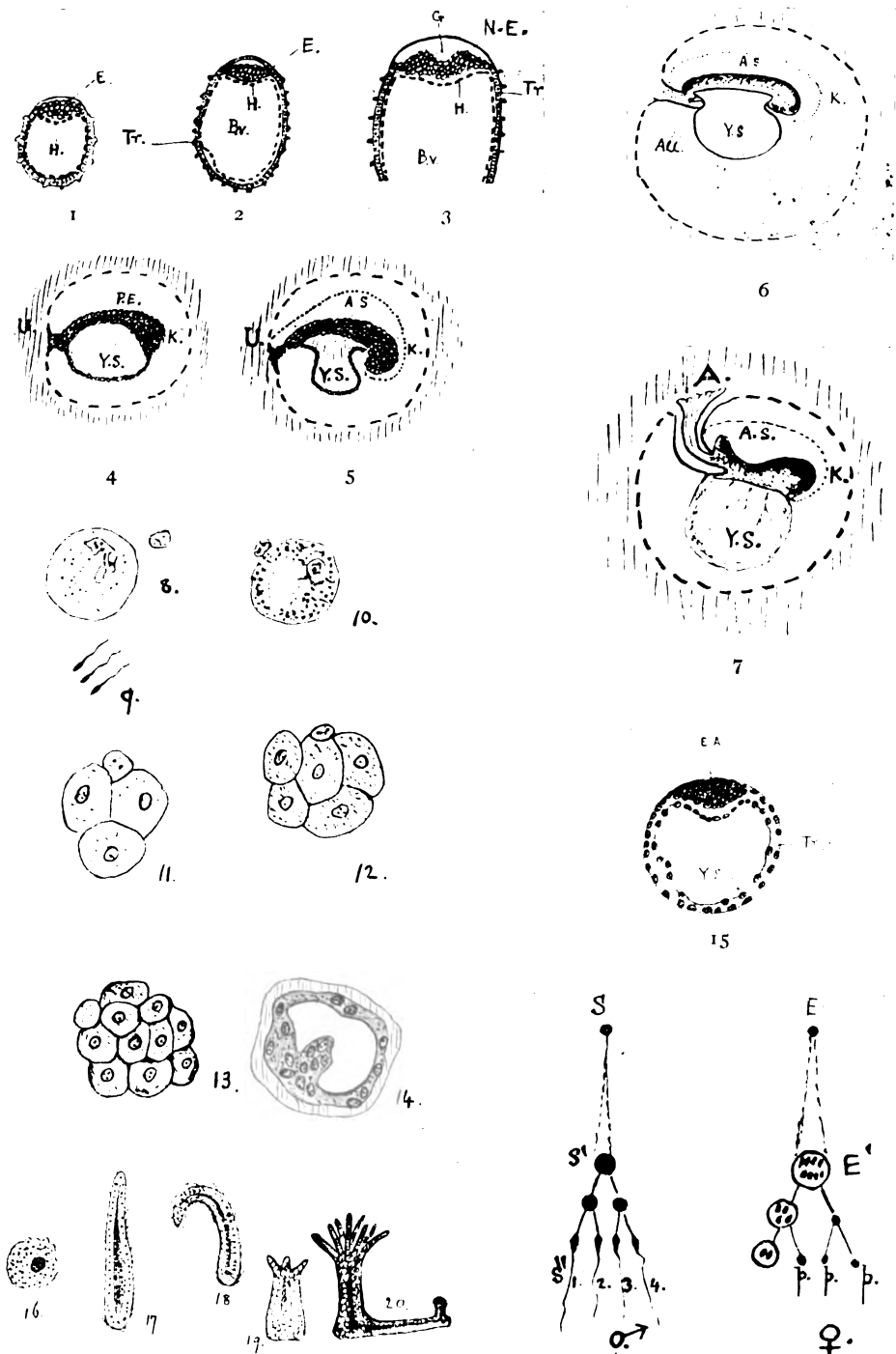
The study of embryogenesis and descent have led biologists to formulate a law or "recapitulation theory," to the effect that the developmental phases passed through by the embryo represent, broadly speaking, a recapitulation of its ancestral history, that ontogenesis is an epitome of phylogenesis. "Each animal in the course of its development from the ovum climbs up, as it were, its own genealogical tree." Such is the recapitulation theory hinted at by the brilliant Agassiz in the early part of the nineteenth century, suggested more directly by von Baer, first clearly enunciated by Fitz Müller and Haeckel, and since then extended by the embryological researches of Kowalevsky, Haeckel, Metchnikoff, Balfour, Hertwig, and others. The tendency of modern research in comparative embryology has been to give additional support to von Baer's doctrine, enunciated by him in 1828: "Embryonic states can only be correctly compared with embryonic states, but not with adult states. The more different two forms are the further back in their development must we go to find similar stages."

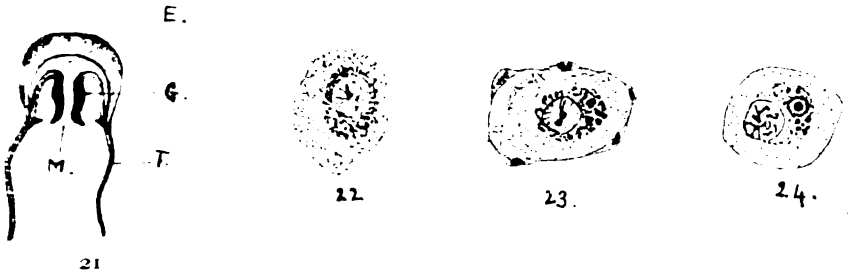
Unfortunately, we do not possess in the case of the human embryo, says Hertwig, a single observation upon the process of fertilisation of ovum by spermatozoon, upon the mitosis and cleavage of the ovum into two, four, and eight blastomeres, and the formation of a solid cell-mass (morula), or upon the formation and differentiation of the blastodermic layers, or upon the establishment of the primordia or organ-anlagen of the embryonic body—in a word, upon the whole of the pre-embryonic life which belongs to the period of the first two weeks after fertilisation. We know that maturation of the ovum has taken place since the extruded pair of polar bodies has been seen beneath the vitelline membrane (Nagel). We have to assume, however, the occurrence of the other phenomena, *viz.*, (a) that fertilisation takes place in the Fallopian tube or oviduct, or less frequently within the body of the uterus by the union of ovum

and spermatozoon; (b) that the fertilised ovum undergoes segmentation into a mass of cells (morula and blastula) which becomes attached to and embedded in the uterine mucosa during the first week, the area of contact being slightly eroded and excavated for the reception of the ovum, while the uterine epithelium grows up around and closes over it in the form of a capsule. Within this covering the cell-mass forms a sac, on the inside of which the cells which are to form the future embryo aggregate and increase into a thickened knot of cells (pre-embryonic disc), while the rest of the sac-wall functions as a trophoblast (Figs. 1, 2, and 3). During the first week the blastodermic disc proliferates, expands, and undergoes differentiation into an anterior (cephalic) and posterior (caudal) pole, while the hypoblast has formed an inner lining for the blastodermic sac, and numerous mesoblast cells are beginning to appear. The primitive chorion is formed, followed by the amnion (Figs. 4 and 5). The ventral yolk-sac now becomes more apparent as a sac by constriction at its front and sides below the embryonic mass. The organ-anlagen of the embryo are not yet differentiated, since the cells are few in number, and though rapidly multiplying, have not all taken up their proper positions. The youngest known human ova that have been studied are of the estimated ages of twelve to fifteen days (His), the blastodermic sac being about one fifth inch in diameter, and the pre-embryo within it about one tenth of an inch. They have all been obtained from miscarriages or suicides (His, Coste, Allen Thomson, Schroeder van der Kolk, Reichert, and Kollman).

We may study as an example His's 2·15 mm. embryo (Fig. 6). Here the line of attachment of the amnion extends almost the entire length of the embryo-shield, beginning in the neck region and ending in the rear. The yolk-sac is not yet constricted into sac proper and duct, for the opening to the enteron is large (wide) and elongated antero-posteriorly.

The following is the description of Coste's embryo 2½ weeks old (Fig. 7). The cephalic end of the embryo is fairly well differentiated from the yolk-sac. The yolk-sac itself is continuous ventrally with the rudiment of the archenteron throughout nearly the entire length of the latter. The anterior and posterior portions of the enteron end blindly. The neural groove has developed along the dorsum of the embryo, but remains patent fore and aft, having closed only in the





FIGS. 1, 2, and 3.—Development of pre-embryo of Hedgehog (semi-diagrammatic, after Hubrecht). The lettering applies to all the three figures.

E. Epiblast. N.E. Neuro-epiblast. G. Neural groove. T. Trophoblast. H. Hypoblast. Bv. Blastodermic vesicle.

Note.—Fig. 1 represents the blastodermic sac, and consists of the epiblastic and hypoblastic layers forming the trophoblast, which is beset with small villi. The cells form a thickened disc dorsally at E, which is the future "embryonic area." Fig. 2, is a more advanced stage with commencing formation of the dorsal amniotic space. Fig. 3, is a still more advanced stage, and the neural plate and groove are beginning to be formed.

FIG. 4.—Pre-embryo of the first week (side view), semi-diagrammatic (human). P.E. Pre-embryo. K. Cephalic end. Y.S. Yolk sac. U. Uterine wall. (The dotted line represents the primitive chorion.)

FIG. 5.—Pre-embryo of the middle of the second week, semi-diagrammatic. A. S. Amniotic sac. The rest of the lettering signifies the same as in Fig. 4.

FIG. 6.—Pre-embryo of 13 days old. All. Allantois. The rest of the lettering as in Figs. 4 and 5.

FIG. 7.—Embryo of 15 to 18 days old. A. Allantois. The lettering as in figures preceding.

FIGS. 8—15.—Showing the cleavage and cell-divisions in the pre-embryo of *Tarsius spectrum* (Hubrecht). These figures are slightly diagrammatised sketches.

- Fig. 8. Ovum after extrusion of first polar body.
- Fig. 9. Spermatozoa.
- Fig. 10. Ovum after extrusion of second polar body (impregnated).
- Fig. 11. Tetrad of blastomeres.
- Fig. 12. Stage of eight blastomeres (five only visible).
- Fig. 13. Morula of about 32 cells (sixth cell generation).
- Fig. 14. Blastula.
- Fig. 15. Blastula, showing Embryonic Area, Yolk Sac, and Trophoblast.

FIGS. 16 to 20.—Fig. 16. Fertilised egg of a Hydromedusa (*Clava squamata*).

- Figs. 17 and 18. Planula-larva (free-swimming, ciliated) of the same.
- Fig. 19. Young asexual sessile hydroid, or hydrula.
- Fig. 20. Adult asexual stoloniferous hydroid.

FIG. 21.—Longitudinal section of a Hydromedusa (medusoid, sexual, free-swimming form).

M. Mouth at the end of the manubrium. G. Gonads (sperm- or germ-cells) in the wall of the manubrium. E. Enteric cavity.

FIGS. 22, 23, and 24.—Fig. 22. Oocyte of new-born infant.

- Fig. 23. Oocyte of young girl.
- Fig. 24. Oocyte of adult woman.

FIG. 25. Diagrams of maturation of spermatocytes and of egg-cells.

S. Young spermatocyte of new-born male child. E. Young oocyte of new-born female child. S'. Mature spermatocyte. S'' (1, 2, 3, 4). Four spermatozoa, descendants of mature spermatocyte. E'. Mature oocyte, which gives rise to an egg-cell and three polar bodies (p, p, p).

centre. The lateral mesoblastic somites begin to appear. The allantois is beginning to grow out from the ventral portion of the caudal region, carrying with it a few developing blood-vessels. There is, however, no union of the allantois with the uterus, no placental formation as yet, and nourishment for the growing embryo is derived partly from the yolk-sac and partly by osmosis from the maternal lymph by the trophoblast. The stomodæum is partially formed, but its floor is not yet opened through, and a thin partition intervenes between stomodæum and archenteron. (The stomodæum opens into the archenteron in the middle or latter part of the third week.)

The following is a description of a slightly older embryo of 3½ weeks: The allantois, now grown as large in size as the entire embryo body, has come into contact with the uterine wall, bringing with it a broad expanse of blood-vessels and capillaries, which, interdigitating closely with the soft and highly vascular tissue of the uterine mucous membrane, forms a solid organ, the placenta, which serves henceforth as the organ of nutrition and respiration. The yolk-sac, or what remains of it, has shrunk into a tiny vesicle with a slender tubular neck, while the enteron is closing longitudinally (ventrally) into a true tube open anteriorly into the stomodæum and developing a similar opening nearly complete posteriorly (the proctodæum). Amniotic fluid is now abundant, and the embryo floats freely in it. The neural groove is closed along the whole length of the bulbo-spinal tube. Four pharyngeal arches have developed at the side of the neck, each with a groove or depression behind it. The five processes (fronto-nasal, right and left lateral nasal, and right and left upper mandibular) growing from the basi-cranial region are partially united to form the upper face. (Failure of union gives rise to harelip and cleft palate.) The thyroid begins to develop as a solid bud in the floor of the pharynx. The embryo has at the end of the fourth week acquired a very characteristic form, corresponding closely in shape, in size, and in internal structure with a chick embryo of the fourth day or a rabbit embryo of the eleventh day. It has attained decidedly mammalian characters. For our knowledge of the stages of development and of their probable characters during the pre-embryonic stage, *i. e.* during the first two weeks after fertilisation of the ovum, we have to rely upon embryological studies carried out on mammals, such

as the observations of Hensen (1883), Kupfer (1882), Selenka (1883), van Beneden and Julin (1884), Heape (1883 and 1886), and Hubrecht (1896, 1902) on the rabbit, guinea-pig and other rodents, the opossum, mole, bat and hedgehog, and especially upon the recent work of Hubrecht on the development of *Tarsius*. An account of Hubrecht's observations on the embryological development of *Tarsius*, an animal intermediate between the lemurs and the apes, is briefly given below, with illustrations, in view of the great importance of the facts and results obtained by that distinguished author, and the light they throw on embryological processes. The placentation of *Tarsius spectrum*, says Hubrecht (*Fürchung und Keimblattbildung bei Tarsius spectrum*, 1902), is of the deciduate type, while the arrangement of the foetal membranes with the diminutive yolk-sac, rudimentary allantois, and large extra-embryonic coelom, is identical with that found in man and monkeys, but nowhere else. After the extrusion of the first polar body from the ripe egg the nucleus is pale and baggy-looking (Fig. 8). After extrusion of the second polar body, impregnation, and fusion of the two pronuclei, division takes place into two and subsequently into four blastomeres arranged in the form of a tetrahedron (Fig. 11). The cells in the tetrad stage are of practically equal size, and attached to the angle between two of them can be seen the second polar body. At the next stage of cell-division (eight cells) the blastomeres are adpressed into an oval, flattened mass of cells, five being visible on one aspect (Fig. 12), with the polar body superposed on one of them. Cell-multiplication thus proceeds, the cells getting individually somewhat smaller with each division until the seventh cell generation, a morula of 30 (to 32) cells, is reached (Fig. 13). The next stage is the blastula, in which the cells arrange themselves as a hollow sac of cells, at first a single layer deep, except at one portion of the blastula sac (Fig. 14), where a dense aggregation of cells takes place three or four cells deep. This latter is the embryonic disc or knot of cells, from which (by further cell-multiplication, growth, and differentiation) the embryonic organs are to be built. At present it is only an embryonic knot of cells, while the attenuated single layer of cells constitutes the rest of the sac, the whole being contained within the zona pellucida or vitelline membrane. In the ninth and tenth cell generations the em-

bryonic knot of cells has grown and expanded, and is now a lens-shaped disc of cells about five cells deep in its central part, the edges being prolonged as before to form the sac—blasto-sac (Fig. 15)—which, however, has had an inner layer of hypoblast cells developed, so that the sac wall is now two-layered. The outer layer is called the trophoblast and shows minute villous elevations, and the whole sac wall probably acts as a food absorbent. The primitive chorion and the amnion are formed at the close of this stage, which may be termed the gastrula stage. The caudal and cephalic ends of the embryo are now differentiated: the amniotic sac has developed dorsalwards and laterally, investing the yolk-sac at its junction with the embryo body, and the neural groove has been formed. This takes us to the end of pre-embryonic life and fills up the actual gap in our knowledge of human embryology.

The Law of Oogenesis and Spermatogenesis.

The details of pre-embryogenesis described in the foregoing chapter commence with the act of fertilisation, or conjugation of sperm- and germ-cell. These cells have already pursued each a long line of development in the body (ovary or testis) of a parent before it could make itself fit to enter into conjugation. These processes in the life-history of the sperm- and germ-cell consist of the following stages.

The descent of the primordial egg-cell.—When the impregnated ovum cleaves and divides into two equal and apparently equipotential blastomeres it might be assumed that (in cases where each such blastomere represents all the structures and potentialities of its fellow) each would be the parent of one half of the embryonic body if development went on normally through the tetrad, morula, and gastrula stages. But if the blastomeres were separated without injury and each permitted to undergo independent development, each might develop into a complete embryo (homologous twin) since each was the equipotential of the other, and the early separation of the two restored each separated blastomere to the condition of what the parent egg-cell was before cleavage. If the capacity for such restoration were perfect, a perfect but miniature morula, gastrula and embryo would be expected to be formed. Evidence which will be fully given in a later chapter on experi-

mental embryology bears this out. The same applies to the cells of the next cleavage—in the third generation of four blastomeres. After this, however, differentiation begins appreciably, though in the case of the egg of the medusæ (*Clytia*, *Laodice*) and of the echinoderms (*Echinus* and *Sphærechinus*) even a one eighth blastomere of the fourth cell-generation will develop symmetrically into a morula and blastula in both, and occasionally to a gastrula in *Echinus* and *Sphærechinus* (Boveri, Driesch, Loeb, Morgan). Hence the eight cells of the fourth generation here are still equipotential: there is as yet no differentiation into incipient tissue cells.

As the process of gastrulation goes on cell-differentiation gradually shows itself. The cells that are to be the parent cells of nerve-cells (neuroblasts), of muscle-cells (myoblasts), of outer epithelial cells (tectoblasts), of gastro-intestinal epithelial cells (gastroblasts), and of vascular tissues, begin to differentiate. Among others the primordial germ-cells also are thus differentiated. Thus appear the primordial pair (theoretically right and left single cells) of germ-cells in the body of the gastrula or cœlomula. It is possible, then, by counting the total number of cells in the gastrula or cœlomula to determine very approximately the ordinal number of the cell-generation in which the first pair of germ-cells (or the first germ-cell) is formed and makes its appearance.

The nature of the germ-track.—The primordial germ-cells appear early in a few species of animals, such as the Diptera (flies), the Daphnidæ (water-fleas), and certain parasitic “worms” of low organisation. The earliest evidence of the appearance of the primordial germ-cell is shown in the Diptera (Weissmann), where in the third generation of four blastomeres one of the four is seen to have a larger amount of nuclear chromatin than its three sister-cells. In the Daphnidæ (Phyllopod Crustacea, of microscopic size) the primordial germ-cell is recognisable in the seventh cell-generation (demi-gastrula stage of sixty-four cells). In *Rhabditis nigrovenosa*, a parasitic worm, the primordial germ-cell appears in the ninth or tenth cell-generation (middle or end of the gastrula stage). Finally, in the marine worm *Sagitta* the primordial germ-cell appears in the eleventh generation, when the gastrula stage has been passed and the cœlom is developed (cœlomula stage). It must be remembered that in small animals of minute size, lowly organisation, and

ephemeral life of a few weeks only, the appearance of the primary germ-cell as early as the *seventh* cell-generation (as in the Daphnidæ) is really comparable, in terms of the life-span, to an appearance of the germ-cell (say) in the tenth cell-generation of an amphioxus, or a later generation in a mammal. The differentiation of primordial germ-cells is delayed, in the higher forms, as is the differentiation of primordial muscle-cells, nerve-cells, and other tissue-cells. For the first few cell-generations, cell-multiplication must be gone through rapidly, to furnish, especially in the mammalia, the building material for the extra-embryonic structures as shown by Hubrecht for the hedgehog, and other mammals. The cell-knot (group of cells) which is to furnish the building elements of the embryo-anlagen appears compact and remains so for some time, not having as yet proliferated and expanded to form the embryonic shield. Hence, says Weissmann, in vertebrates the appearance of the primary germ-cell occurs much later than in Sagitta, which shows it in the eleventh generation. In Hydrozoa, according to the peculiar and sedentary or sessile life pursued, and the proneness to budding and colony formation, the formation of the germ-cells may be delayed still further, a long period marked by an asexual stage occurring before the sexual persons (medusoids) arise. The life-stages are fertilised egg, free-swimming planula, sessile hydrula, stoloniferous hydroid-stock, medusa, and gonads (Figs. 16-21). The "germ-track" therefore in this instance cannot be said really to exist; the ovum develops into a planula, then follows an asexual hydroid, which itself may undergo budding until two or more generations are passed through, before the sexual medusoids begin to be developed. *The only "track" that exists is a track composed wholly and exclusively of many generations of somatic-cells, and from the last of these the germ-cells arise.* "The ancestors of these germ-cells," says Weissmann, "are somatic cells." In short, a "series of the various species of animals might be drawn up in which the formation of primordial germ-cells begins at very different degrees of remoteness from the egg-cell" (Weissmann). I believe that Weissmann is but using the sober language of fact when he says: "In most of the higher metazoa this [the first appearance of the primary germ-cells] only occurs after the formation of thousands or even millions of cells" (The Germ-

plasma, 1895, pp. 192-3). The rest of the genealogy of the germ-cells is briefly told. The primordial germ-cells divide and increase in numbers. The majority of these are aggregated in the coelomic genital area, where the ovaries and testes are accordingly formed. A small minority, however, of these cells (about 10 *per cent.* or less) may in the early cell-divisions which occur within the gastrula or coelomula migrate or be disseminated throughout other parts of the embryonic body, remaining probably as single cells to die and be absorbed later, or to furnish the starting-points of neoplasms. The primordial germ-cells have a glassy appearance of the cytoplasm (as revealed in the skate and other fishes), the nucleus is slightly bilobed in appearance, and the perinuclear region is full of particles of a food material which stains darkly with certain dyes. As these cells proceed to multiply and increase in number their further fate may be traced in the gonads or sexual organs. Here the cells which are destined to become the future ova and spermatozoa increase numerically until an aggregate of several thousands or scores of thousands (rarely millions) are formed. It is only a simple mathematical calculation to ascertain the number of cell-generations that this represents from the primordial germ-cells to the terminal generations of ova and spermatozoa in their teeming millions, *i. e.*, assuming that every germ-cell descended from the primordial germ-cell divides into two, and that the process is repeated exactly in the same way generation after generation, that no cell dies in any generation, and that no cell is arrested in development or ceases to divide to the very last. Although the primordial germ-cells are distinguishable from young somatic cells in early embryonic life, the question as to what determines the subsequent differentiation of these cells into the parent cells of male and female gametes is not quite known. The primordial germ-cells are sexually indifferent, being neither pro-male nor pro-female. Their transformation to ova or spermatozoa "is not due," says Wilson (*The Cell*, 1902), "to an inherent predisposition, but is a reaction to external stimulus, . . . the stimulus given by the character of the food." At the period of birth in the female infant, or at a date very soon after, the eggs in the ovaries as actually counted are found to have reached the numerical limit of their growth. During the sixteen years of childhood they

undergo internal changes of which as yet little is known beyond the barest outlines (Figs. 22–24). At the onset of puberty, however, characteristic (qualitative and quantitative) changes occur, constituting “maturation.” These consist in the phenomena of nuclear division and extrusion of polar bodies, or, in the case of the sperm-cells, the division of the parent cell twice into four granddaughter-cells or young spermatozoa. In both kinds of cells the maturation stage comprises two cell-generations, as is graphically shown below (Fig. 25). Details of these processes need not be here given, as the text-books give all the necessary information.

PART III.

The Law of Pathogenesis.

It is clear that the exclusive view, propounded and held by Weissmann and his followers, of the charmed life of isolation led by germ-plasma in its progress during the ages through the bodies of animals is really a metaphysical concept which does not accord with facts of Nature as revealed to us in the study of both human and animal life. The germ-plasma, as the alleged material substratum of a certain class of phenomena, is subject to the laws which govern the physical movements of atoms and molecules—the law of chemical reactions and the law of the persistence of force. As a living substance it is subject similarly to the physico-chemical and mechanical influences of that which is not itself, but in which it lives, multiplies, grows, moves, and has its being, *viz.*, the living body or soma which constitutes its environment. And, therefore, changes in the soma or environment of the germ-plasma modify the latter, and conversely changes in the germ-plasma influence the soma. The object of our inquiry is to trace out, and to understand if possible, how agencies for good or evil acting on the soma may affect the germ-plasma, and what are the results, good or evil, which would follow and manifest themselves in the issue or offspring. A whole series of biological and pathological observations are now available, thanks to the special investigations of medico-biological investigators in this department. In the vast realm of facts and data of this branch of study we must in this chapter limit ourselves to a few that concern

only the human race and the higher animals. They are—the action of alcoholism, plumbism, syphilis, and tuberculosis on the individual and on his progeny. Does alcohol taken by the parent have any effect *viâ* the parent on the germ-plasma or the germ-cells? Does modification, for good or evil, of the germ-plasma or germ-cells result, and is this manifested in the offspring born of such parents? And the same question will be asked with regard to plumbism, syphilis, and tuberculosis.

Hereditary sequela of alcoholism.—Hereditary transmission from the parent to the embryo may take place in one of three ways: first, the germ-cell or ovum may be altered or damaged as the result of grave constitutional disease acquired by the mother at or before the time of conception, a similar occurrence as the result of constitutional disease or toxæmia being possible for the sperm-cells of the father. Secondly, the impregnated ovum during the pre-embryonic stage (which we have defined in previous chapters) may be subjected within the uterus to the action of toxic, cytolytic, and other morbid agencies circulating in the maternal blood-plasma which nourishes it through this stage. Thirdly, the embryo may be affected *via* its placental attachment to the mother (on or after the fourth or fifth week of intra-uterine life—the period of placental embryonic life). It is clear that these three several modes of “hereditary” transmission are not identical, and that they should be discriminated and not confounded together. Under hereditary transmission in the strict sense we include only those modes of transmission which are specified above under the headings “first” and “secondly,” and these will now be considered a little more in detail. Take the case of a female infant who is born with ovaries containing the mother-cells of future ova, as the male infant is possessed of testes containing the parent-cells of future spermatozoa. The ova proper and the spermatozoa have themselves not as yet “arrived”; the miniature parent-cells which give rise to them within the ovaries and testes have to undergo a process of growth, development, and maturation through the long period of at least sixteen years before puberty is attained. During this long cycle of changes whereby the elaborate and highly complex organisation of germ-cell and sperm-cell is completed and attained, although we know relatively little as regards the intimate details, we know that the

whole series of changes culminating in the maturation process is fraught with consequences of the utmost importance for the future being that is to be born from the union of ovum and spermatozoon. A veritable field of investigation lies open here for the experimental investigator. The ovaries and testes are furnished with a rich vascular blood-supply for the purposes of nutrition, growth, and elaboration of structure and internal evolution of the ova and spermatozoa during the long period of sixteen years. During this period the germ- and sperm-cells are subjected to the action of nutritive, toxic, thermal, gaseous, and other changes of the blood-plasma which continually bathes and nourishes them, and carries away the by-products of their metabolism. The plasmic environment of the germ-cells cannot, of course, vary excessively without death resulting, but, within the limits which enable life to continue, the action of disease, degeneration, and pathogenic agencies has full play; the growing and maturing sexual cells in the ovaries and testes are affected by noxious as well as by beneficial agencies—by changes in food-supply, warmth, oxygen, and all the normal necessities of life, as well as by inanition, pyrexia, impure gases in the blood, toxic and cytolytic substances in the blood in fevers, by toxins of defective bowel and renal elimination (auto-toxæmia), by alcohol, lead-poisoning, food-poisoning, and the thousand and one factors which assail and affect the human constitution. Damage may be thus sustained by germ- and sperm-cells while still immature, or in the maturation stage, or during and after conjugation and in the pre-embryonic stage. Thus are produced, *de novo*, by the action of potent extraneous agencies acting on the parent organism and *via* the parent organism on the germ and sperm-cells, or on the impregnated ovum and the pre-embryos, pathological characters, or morbid changes. Do the offspring born of such germ and sperm-cells, or developing from pre-embryos subjected to such pathogenic influences, (*a*) live to full-term or abort, or miscarry; and (*b*) if they live to full-term and are born, do they exhibit in body and mind, in childhood or later, the signs and stigmata of their affliction and lesion sustained, impressed, and inherited *ab ovo*, *ab spermate*, *et ab præ-embryone*? And are these offspring, if the burden and blemish—the diathesis—of their heritage is potent enough, capable of transmitting it to the third generation? These are questions of the profoundest importance,

matters sometimes of life and death. I state here, after a due consideration and study of the vast body of pathological evidence and facts for fifteen years, and after much thought, discussion, and deliberation, that the teaching of pathology is positive, clear, and irrefutable. Let us take concrete instances.

In the case of married couples who have permitted themselves immoderate alcoholic indulgence in the *first few days or the first week* of the honeymoon (Combemale, *Les Descendances des Alcooliques*, Paris, 1888), but who have otherwise led lives of temperance before and after the event, feeble and imbecile first-born children have often been the gift of Nature for their indiscretion. Sabatier (*Thèse de Paris*, 1875) has also, after a long and careful inquiry and study of peasant families in France, arrived at the same conclusion. As a typical case of the many investigated by him may be taken the following. A robust and intelligent peasant, a native of Auvergne, following the custom prevailing in many villages of his district, passed the *first three weeks* of his married life in drinking and jollification, "being in a state of moderate alcoholic intoxication all the time." Nine and a half months later there was born unto his wife a girl of imbecile mind, with myopia and nystagmus, bad-tempered, and of odd (bizarre) and changeable nature, who was unable to learn to read or write. Sabatier also mentions numerous examples of married couples who habitually practised Malthusian principles to limit their families. "But occasionally they gave themselves up to alcoholic festivities for days, forgetting," he quaintly adds, "for the time being their Malthusian principles and procreating children, most of whom turned out to be deformed, idiotic, or epileptic." Demeaux had shown earlier, from a series of observations made by himself (*C. R. Acad. de Sci.*, November 1st, 1861), that "alcoholic intoxication at the time of conception was a cause of epilepsy in the child." Dehaut (*ibid.*, October, 1861) and Vouquier (*ibid.*, December, 1861) have furnished cases and observations of the same character. Voisin (article "Epilepsie" in Jacoud's *Dictionnaire de Med.*, 1886) states that in inquiring into the history of the cases of epilepsy under his charge at the Salpêtrière he found "twelve cases in which he was able to assure himself that the cause of the epilepsy was that conception had occurred when the parents were drunk (*en état d'ivresse*)." Grenier (*Thèse de Paris*, 1887) studied the cases of 188 idiot and imbecile children, and was

able to trace seven of these to drunkenness of the parents in the first few days of married life. The whole body of facts brought together above refers to temporary intoxication and drinking, and not to chronic drunkards. They illustrate *the action of alcoholism on the germ- and sperm-cells and on the pre-embryo*. Combemale (*loc. cit.*, 1888) cites a very instructive case, among his series, of a man, *æt.* 22, who was the second child of a family of six. He was begotten by his father while in a state of "alcoholic intoxication and exaltation." The child born of this act was neurotic, and had during all his life marked nervous manifestations and disorders of nutrition (*manifestations nerveuses et des troubles nutritifs accusés*). He was delicate in health, suffered from neuralgia and intolerable cephalalgia at 10 years. At the age of 13 years the cephalic symptoms (*céphalées*) prevented all study and intellectual work; at 16 he developed epilepsy and vertigo, and soon after he became hypochondriacal and underwent cerebral degeneration and mental and moral deterioration (*dementia præcox*) which necessitated his being placed in an asylum. The father, a well-to-do man, had several mistresses maintained in various houses, and was the father of several other children. Though given to occasional alcoholic indulgence he abstained from cohabiting when in a state of intoxication, *and his other children born of his sober moments were not afflicted bodily or mentally like the patient referred to here*. The patient's mother herself was a woman of greedy habits and bad temper, but free from neuroses and with a healthy family history. The influence of temporary intoxication of the parents on the offspring begotten by them has drawn the casual attention of observers of older times (Pinel, Esquirol, Seguin, Lucas, and Morel), but it was reserved for the followers of Morel and the other writers of the French school quoted above, and of later observers (Déjerine, Legrain, Möbius) in the last quarter of the nineteenth century to collect and establish a body of facts showing once and for all the soundness of this theory of pathological heredity. [The reader desiring fuller information should consult the *Thèses* of Sabatier and Combemale (1875 and 1888), the works of Voisin and Grenier (1886, 1887), and the special chapters in their memoirs on the subject of alcoholism and heredity by Déjerine (1886), Legrain (1895), and Möbius (1900)].

In the Presidential Address at the annual meeting of the

Medico-Psychological Association, Dr. Wigglesworth (*Journal of Mental Science*, October, 1902) deals clearly and comprehensively with alcoholism as a cause of insanity and hereditary degeneracy in the human race. Alcoholism in the progenitors, says Dr. Wigglesworth, basing his study on 3450 cases of insanity examined at the Rainhill Asylum during a long series of years, is a fruitful cause of idiocy, mental defect, insanity, and other nervous diseases in the offspring. Alcoholism is, of course, frequently associated with mental disease in the family histories of insane patients, but for the purposes of inquiring into the special action of alcohol, he found that of the total number of 3450 cases a definite history of alcoholic excess unassociated with insanity in one or both parents was traceable in 578 instances. Separating the sexes, it was found that 327 of these cases were males and 251 females. "Doubtless some few of these cases of alcoholic excess may have been veritable examples of dipsomania . . . a neurosis allied to insanity; but as most of such cases usually show mental disorders at some period or other of their course, the majority of them will have been included," he adds, "in the tables of hereditary insanity," with which we need not concern ourselves here. The figures given in this paragraph exclude such cases. The actual frequency of alcoholic intemperance in the ancestry of the insane is probably larger than what the above figures indicate, for the friends of patients often conceal or deny the existence of drunkenness. The figures therefore apply, says Dr. Wigglesworth "only to cases of gross and palpable excess." In regard to the *modus operandi* of the alcohol, it is regarded as a "direct poisoning of the germ plasma itself by the alcohol circulating in the blood, and a consequent direct injury to the cells of which this structure is composed, and which by reason of this injury are prevented from developing into a stable organism." Regarding thus the vast population of a public asylum, composed of insane patients who have been observed and studied for a number of years, it is found that 17 *per cent.* of all cases of insanity, taken together, are due to alcoholic parentage, as distinct from and exclusive of other causes, such as epilepsy, organic brain disease, tuberculosis, or insane parentage. If the alcoholic poisoning of the germ-cells and ovum have reached a certain degree of intensity, imbecility or even profound idiocy may be expected to result, "while if of less

degree the injury may manifest itself in the various forms of adolescent insanity when adult life is developing or has been attained to." If both parents are alcoholic, the damage sustained by the germ- and sperm-cell might be sufficient to render them incapable of fertile union, or to result in the production of an embryo which becomes aborted in early pregnancy, or dies *in utero* and becomes a miscarriage.

An inquiry on a large scale into the hereditary sequelæ of alcoholism was carried out by Dr. T. Crothers, of Hartford, Connecticut, U.S.A., and a committee of physicians appointed in 1888, of which he was chairman. The collection of material by skilled physicians and specialists (clinical histories and cases) went on for thirteen years, and was carried out with great care. An account of this research has been recently published (*Quarterly Journal of Inebriety*, Jan., 1901), based on the investigation of 1744 cases of inebriety, not including, however, cases of actual alcoholic insanity. The chief conclusion reached was that the injury produced by the alcoholism of parents not only affected the nervous systems of the immediate progeny, but that the ill-effects (diathesis and degeneracies) were also transmitted through them to the later progeny of the third generation with almost positive certainty in some form, *e. g.*, as a neurosis, a cerebral defect, or a drink craving. Thus, of 1744 inebriates it was found that 1080 were traceable to parental intemperance, and in only 390 was it an acquired habit. Forty-nine of the patients were classed as instances of epileptoid-alcoholic type. The patients of this class were not epileptics in the true sense, but they were hereditary alcoholics of a particular pathological type, whose individual symptoms (of alcoholism and excitement) were of sudden and stormy development, "not strictly or regularly periodic, but developing out of the clear sky in an impetuous storm, and then disappearing and leaving little trace behind." Finally, various groups of patients were met with (in the progeny of alcoholic parentage) in whom fatalistic tendencies to drink were observed, or who manifested precocious sexual instincts which would be gratified by any means whatever or were given to morphia and drug habits. Sound, well-balanced men and women of good intelligence and *morale* were very seldom met with among the offspring of the alcoholic families which formed the subject of the inquiry.

The special influence of maternal inebriety on the offspring.—

It has been observed by many writers that those classes of individuals who exhibit marked incapacity or inability to adapt themselves to normal social conditions—*e. g.*, many feeble-minded and imbecile subjects, and a considerable proportion of habitual criminals, tramps and vagrants and prostitutes—are largely the offspring of alcoholic parentage. Thus of a series of 1000 idiots investigated by Bourneville (*Comptes Rendus de Bicêtre*, 1896) at the Bicêtre, Paris, an alcoholic parentage was ascertained to be the etiological factor in 62 *per cent.* When both idiots and imbeciles were included the proportion was 41 *per cent.* Marro, of Turin, found an alcoholic parentage in 46 *per cent.* of habitual criminals, while 45 *per cent.* of the inmates of Swiss prisons for juvenile offenders showed a similar history of ancestral alcoholism. Madame Tarnowsky, a Russian lady physician, found that 82 *per cent.* of Russian prostitutes were the offspring of alcoholic parents. Observations of this kind might easily be multiplied. In an article in the *Journal of Mental Science*, of 1899, Dr. Sullivan, of H.M. Prison, Parkhurst, states that he pursued an opposite method of inquiry to the above to determine the influence of maternal inebriety on the offspring. He took for the subject of his inquiry, not alcoholism in the ancestry of the degenerate, but degeneracy in the descendants of the alcoholic. For this purpose he studied a number of women who were habitual drinkers, and who had borne children, selected from the female population of Liverpool Prison. To render the conditions of investigation accurate and free from fallacy, all women exhibiting a phthisical or syphilitic taint or history were excluded, as well as cases which had a neurotic taint indicated by a specially early and violent cerebral reaction to alcohol (dipsomaniacal and epileptoid cases). Eliminating all these, 120 cases remained for study.

In the criminal as in the insane alcoholic it is well known that the stresses of alcohol fall with peculiar vehemence on the brain, while the bulbo-spinal cord and the non-nervous organs of the body suffer less intensely. In the female cases comprised in Dr. Sullivan's inquiry the effect of alcohol on the central nervous system was well marked and conspicuous. Thirty-one of the 120 cases had suffered from one or more attacks of alcoholic delirium, while 24 others without actual delirium suffered from visual hallu-

cinations at times. Suicidal impulses, paræsthesiæ of the skin, and cramps in the extremities were noted in a considerable number also. (Inquiries in their families revealed the fact that similar symptoms were present in alcoholic relatives—not in prison—of the patients.) The study of the progeny of these 120 unhappy women showed that 600 children were born to them. Of the 600 children, 265, or 44·2 *per cent.*, lived over two years, while 335 (55·8 *per cent.*) *died while under two years, or were still-born*, a striking commentary on the feeble and degenerated condition of the progeny of alcoholic mothers. With a view to establish comparisons with a healthy non-alcoholic standard, inquiries were made and trustworthy details collected concerning 21 of the families to which these women belonged, and with regard to female relatives (sisters and daughters) of sober habits who had contracted marriage with sober males, and had borne children. Thus, of 28 sober mothers (sisters or daughters of the alcoholic mothers referred to above) there were born 138 children. Of these 138 children 33 (or 23·9 *per cent.*) died under two years of age. Thus the death-rate among the children of the alcoholic women was nearly 2½ times as great as that among the infants of sober mothers of the same stock. Another fact established by the observations was the progressively increasing death-rate in the progeny of alcoholic families where three or more children were born to a family. This will be clearly seen from the following table, which gives the respective proportions of dead or still-born children among first-born, second-born, third-born, etc. :

Table showing the Progressive Increase of Mortality in the later Progeny of Alcoholic Parents.

Order of birth.	Cases.	Dead or still-born.
First born	80	33·7 <i>per cent.</i>
Second born	80	50·0 "
Third born	80	52·6 "
Fourth and fifth born	111	66·7 "
Sixth to tenth born	93	72·0 "

These figures and percentages illustrate very clearly the progressively augmenting results of the maleficent influence of maternal alcoholism in the offspring.

The study of individual families in which this degeneracy of progeny resulting from alcohol could be traced for more than two generations affords results of striking interest, corroborative of the above. The following is an average instance of such a family history traced over two generations. The first generation begins with a woman aged 34 years, who has had several convictions and imprisonments for drunkenness and disorderly conduct. She took to drink after her first baby was born, beer and spirits; she developed gastric cramps and catarrh, and had one attack of delirium tremens. Occasionally she was hysterical; attempted suicide twice. Husband also drank, but never had delirium tremens. His and her parents were sober. Six children were born to her. The first was quite healthy. The second and third were living and fairly healthy. The fourth child, aged six years, is of low intelligence, habits wet. The fifth child is still more degenerate, an epileptic idiot, aged four years. The sixth child was still-born, and the seventh a recent abortion.

Influence of paternal inebriety.—While the observations of Sullivan apply more especially to the progeny of inebriate women, the following observations of Robinovitch are drawn from women who have developed temporary but recoverable mental disorder from alcoholism, and who were seen in the first instance at the clinic of St. Anne's Asylum, Paris, during the years 1898 and 1899 (*N. Y. Medico-Legal Journal*, December, 1900). These cases might almost be termed borderland cases between sanity and insanity. They therefore offer an interesting contrast and complement to the female cases before mentioned. These cases, fifty in number, were only accepted as suitable for study, says Dr. Robinovitch, after excluding cases of real insanity, with mental irresponsibility, owing to insane impulses or delusions; cases of chronic mental derangement; cases of chronic alcoholic insanity; and cases of congenital mental and moral defect (congenital idiocy and imbecility). All the fifty cases were found to be traceable to and due to alcoholic parentage; and in other members (progeny) of these families other indications of alcoholic degeneracy were revealed on inquiry. It was also found that in the vast majority of these families *alcoholism of the father was the predominant factor, and that it existed as the sole factor in over 90 per cent., alcoholism of the mother only existing in about 3 per cent., and of both parents in about 6 or 7 per cent.* One typical family

history is appended from Dr. Robinovitch's records. A man of drunken habits and bad temper, a drinker of absinthe, married a woman of normal disposition who enjoyed good bodily health. There were eight children of the marriage, one of whom is the patient (referred to below). The following is the history of the progeny. The first child, a female, was feeble-minded, and grew up to become the mother of an illegitimate child; another, a male, was timid and odd in conduct; two others (males) were dull in mind and incapable of earning a living. The patient (referred to above) was born at full-term, walked at the age of three years, and talked at the age of five. At sixteen he began to exhibit vicious propensities, frequented disreputable places, and was convicted of attempts at rape on young children. He enlisted at the age of eighteen years, and was shortly afterwards discharged for larceny. He became an absinthe-drinker, low, depraved, and criminal in his tendencies. He was eventually placed in an asylum. "His life," adds Dr. Robinovitch, "was one continual manifestation of vice and criminality."

A study was also made by the same author of the progeny of the alcoholic families which furnished the preceding fifty cases. Alcoholism on the father's side, as already stated, was found to exist in over 90 *per cent*. Of a total of 127 children born to these fifty families 50 "were suitable subjects for asylums and the prison," 40 died in infancy or prematurely, and 37 were still living. Of the 37 living 27 were in good physical condition; the rest were sufferers from meningitis (4 cases), convulsions (3 cases) and other diseases, and one of them was beginning to manifest criminal tendencies.

A remarkable case of the hereditary degeneracies following alcoholism of both parents.—The discussion of alcohol and the hereditary degeneration of the progeny may be concluded with the recital of the following remarkable modern instance—remarkable in that the investigation has been thorough, the result instructive and unmistakable, and the record lengthy in its scope, embracing four generations, as published by Dr. A. MacNicholl, of New York, in the *Quarterly Journal of Inebriety* for July, 1902. The genealogical table and the history of this family illustrate the results of degeneracy and disease arising mainly from alcoholism in a family traced and studied as follows:

First generation.—The head of the family was a well-to-do

man of good social position, of English parentage, living in the United States. He married a lady of Huguenot descent of good social position. Both of them lived well, indulged in social gaieties, and took wine habitually and daily. To them were born two daughters, whose further history is here unfolded.

Second generation.—The elder daughter developed in early life a fondness for wine and spirits, gave herself up to the wildest alcoholic and sexual excesses, became the mistress of several men and contracted loathsome venereal diseases. She died a raving alcoholic maniac at the age of 40.

The younger daughter also developed in early life a fondness for wine and spirits. She married a wealthy banker and indulged in a gay life of excesses which led to a mental breakdown at the age of 38 years. She bore eight children.

Third generation.—Two of these, boys, grew up to be drunkards, showing at the age of 50 and 60 years respectively the signs of chronic alcoholic brain degeneration. Six of the issue following were girls, five of whom died of phthisis between the ages of 20 and 35. The remaining girl survived and married a healthy man of "moderate" alcoholic habits. She and he, however, drifted later into alcoholic excess and led fast lives. Their children constituted the next generation.

Fourth generation.—Seventeen children were born of this ill-fated union, ten of the children dying from phthisis before the age of 5 years. [Attention may be directed *en passant* to the remarkable facility to contract phthisis which occurs in the progeny of alcoholic parents.] Of the seven surviving children the following are, in brief, the life histories :

A, the eldest, a girl, exhibited great moral perversion, became a professional singer and prize-fighter, was drunken and dissolute, and became the mother of several illegitimate children. *B*, a boy, grew up to be a moderate drinker, and contracted phthisis, from which he was suffering at the age of 45. *C*, a boy, became an insurance agent, drank moderately, and exhibited suicidal tendencies on more than one occasion. *D*, a boy, habitual drinker and morphia-taker, had delirium tremens several times and ended his life at 35 by an overdose of morphia taken while drunk. *E*, a girl, married early, took to drink and developed suicidal melancholia. *F*, a boy, a typical psychopath. At the age of 12 he was an industrious and studious boy, but

peculiar in his ways. At 21 he married, was lazy, indolent, and neurasthenic. At 23 a confirmed drunkard, neglectful of his home. At 24 he abandoned his wife and 2 children, and at 28 he committed suicide by drinking carbolic acid. G, the last (the seventeenth) of this unfortunate family, received a High School education, and at the age of 21 was the subject of moral perversion and suicidal impulses. The whole family tree, tainted by alcoholism, traced during the four generations of its existence, exhibited almost every form and grade of mental degeneracy and deterioration with a high rate of mortality of offspring, in the most remarkable manner. A fearful commentary on hereditary transmission!

Pathogenic action of alcohol on the sperm- and germ-cells.—Féré, of Paris, has, in a series of experiments conducted on the influence of the vapour of alcohol and absinthe on incubating eggs during the pre-embryonic stage (*Comptes Rendus, Société de Biolog.*, Paris, vol. lii., pp. 231, 471, 601, 681, 790) afforded convincing evidence of the influence of alcohol on the developing pre-embryo. These experiments on normal eggs, carefully selected and placed in incubators and subjected for a few days during the first week of the process of development to the influence of the vapours of small quantities of alcohol, or of absinthe, gave interesting and instructive results, tabulated below.

No. of eggs.	Toxic agent.	Results of development of the eggs.		
		Normal.	Undeveloped embryos.	Monstrous or defective (imbecile) development.
a. { 84	Alcohol	63·1 per cent.	15·5 per cent.	21·4 per cent.
24	Alcohol	62·5 „	16·6 „	20·8 „
b. 84	Alcoholic solution of absinthe	25·0 „	31·0 „	44·0 „

Thus, while alcohol in small doses produced 63 per cent. of normal births, 16 per cent. of undeveloped (partially developed and dead-born) embryos, and 21 per cent. of monstrosities (malformations) and defective development (“chickens of idiotic and imbecile grade,” says Féré, which could not “run

about or pick up food or feed and help themselves"), the addition to the alcohol of traces of absinthe reduced the normal developments to 25 *per cent.*, increased the undeveloped and dead-born embryos to 31 *per cent.*, and of monstrous and defectively developed chickens to 44 *per cent.* The conclusion to be drawn is obvious as regards the comparative evil effects of these two toxic agents. Using in another series of experiments forty-eight eggs, in two batches, each batch exposed to slightly larger quantities of the vapour of alcoholic solution of anise and of absinthe, the following results were obtained: (a) For alcohol and anise the result was 42 *per cent.* of normal chickens, 25 *per cent.* of undeveloped and dead-born, and 23 *per cent.* of monstrosities and defective development, while for (b) alcoholic solution of absinthe there were 17 *per cent.* of normal chickens, 21 *per cent.* of undeveloped and dead-born, and 62 *per cent.* of monstrous and defective development. Ziegler, in his experiments with the fertilised ova of *Echinus* and *Strongylocentrotus* (*Biolog. Centralbl.*, 1903, p. 448) to test the action of alcohol on the impregnated ovum, found that $\frac{1}{2}$ -1 *per cent.* of alcohol injured and retarded development to a moderate extent, but that there were marked individual differences in susceptibility. One and a half to two *per cent.* of alcohol in the sea water seriously deranged development and was thus highly toxic, as Rauber had previously found, for various animals. The cleavage, says Ziegler, was slow and often abnormal. The blastocœl tended to be too small; only a few blastulæ were formed, the remaining ova died before. Gastrulation was sluggish, the mesenchymic cells had not the normal arrangement, a skeleton was not developed or, if formed at all, was abnormal. The few plutei larvæ which developed were monstrosities lacking well-developed arms and did not live long, death being the almost constant issue. With 3 *per cent.* alcohol the injury and arrest of development were greater, and death often occurred before even the gastrula stage was reached. The action of alcoholism on the ovarian and testicular elements of dogs and of man have been experimentally and microscopically studied. Magnan and others have found in the testicles of the dog the occurrence of a granulo-fatty degeneration, with feeble vitality and mobility of the spermatozoa; and other observers have recognised and described similar changes in man.

The whole body of facts, of observations, and of experiments on the influence of alcoholism on the sperm- and germ-cells, and on the pre-embryo, summarised above clearly indicate and demonstrate the pathogenic potency for material evil possessed by alcohol and exerted on the offspring of alcoholic parentage.

Plumbism.—We need not dwell at any length on the special toxic effects of lead-poisoning of the mother on the germ-cells or the pre-embryo. Lead-poisoning of the mother produces distinct injury of the embryo *via* the maternal blood-plasma which carries the lead in solution. Moreover, a grave anæmia is also produced by lead-poisoning, and deficient nutrition or even death of the embryo results. There are always serious changes, says von Jaksch (Nothnagel's *Special Therapy* 1897, vol. i p. 207), in the introgenous metabolism of the body resulting in an excessive production of uric acid, owing to an excessive destruction, by the lead, of nuclein-containing substances. Rennert pointed out in 1882 that women, otherwise healthy, employed in the pottery factories (where lead is used in glazing and the women are exposed to the dangers of infection from lead fumes) in Germany had frequent abortions or gave birth to children who were deaf-mute, macrocephalic, or otherwise mentally defective (Talbot *On Degeneracy*, 1902, p. 119). Early abortion occurring in lead-poisoning is due to the intensity of the toxæmia and anæmia, the conjoint action of which is to produce death of the embryo. In milder cases of lead-poisoning the child may survive, but at its birth may exhibit the characteristic symptoms. Thus Oppenheim, of Berlin, has described a case where the child was born in a state of feeble bodily nutrition with foot and wrist-drop and local muscular atrophies, a condition traceable to lead-poisoning of the mother. In this case, however, the characters of the lesion indicated that the morbid process (toxic action of lead) was sustained in foetal and not in embryonic life.

Syphilis.—Syphilis may produce death and abortion of the pre-embryo in the first month of intra-uterine life or immediately afterwards. The cerebral lesions of syphilis sustained by the pre-embryo or the embryo may produce symptoms which vary from profound idiocy to imbecility. Syphilis attacking the pre-embryo and embryo produces developmental malformations and monstrosities of embryonic development according

to the exact period of infection. Among these are anencephaly, spina bifida, meningocele and encephalocele, hare-lip and cleft palate, ectropion vesicæ, and deformed auricles, malformations which are here given in chronological order of their origin in the embryo. The first and second of these may be caused during the third week of intra-uterine life, the last two in the fourth and fifth weeks, and the others at intermediate times. All these malformations are thus of pre-embryonic or early embryonic origin, due to the action of the syphilitic virus within the first month of intra-uterine life.

Such an array of definite facts as those collected and presented above in regard to alcohol, plumbism, and syphilis can be extended to include the pathogenic action of other agencies, such as tuberculosis, which space prevents us from dealing with here.

Finally, as regards bacterial and other toxins and their effect *via* the maternal blood-plasma on the embryos of pregnant rabbits and cats, brief reference may be made to the recent experiments of Charrin and Delamare on cats, rabbits, and guinea-pigs (*C.R.*, 1901, p. 955, and *Thèse de Paris*, 1904), which show from a large and careful series of experiments that toxic and cytolytic agents generated within the maternal body by bacterial agencies or by surgical (experimental) lesions of large visceral organs (*e.g.*, ablation of one half of the liver, or of the pancreas, but not ablation of one kidney) of the mother acted on the pre-embryo or embryo in such wise as to induce in it special visceral lesions and profound disturbances of nutrition, the actual tangible and visible results being seen in the necropsies performed on the fœtus at or near full term. The results included abortions, still-birth at about full term, nanism or idiocy, osseous malformations like *chondrodystrophia fetalis*, and other malformations. In fact, these experiments and their results fall into line with those of Féré on incubating eggs of which we have given a fairly full summary already, and they unite in confirming the clinical and pathological conclusions previously drawn regarding heredity and the pre-embryonic life.

General Conclusions.

1. Preformation theories of the spermatist type have been

proved to be baseless, one-sided, and valueless. Yet they were necessary stages in the development of knowledge.

2. The modern view is that the male and female (germ and sperm) cells of the parents contribute in equal or approximately equal proportion to the constitution of the pre-embryo, and that the special intra-uterine environment and nourishment of the fertilised ovum during its growth and evolution in the parental body constitute a third factor of importance, and that this is especially the case in those animals whose gestation period is prolonged (mammals). While the above are the normal factors which co-operate in the production of the progeny, a fourth (accidental or pathogenic) factor may enter as a complication—a fact with important practical bearings, especially for the human race.

3. In the course of animal evolution Nature exhibits in the successively later and higher stages a gradually increasing perfection of the mechanism for keeping constant the immediate environment of the fertilised and developing ovum until considerable progress—well on to post-embryonic or foetal life—has been attained. Thus, starting from the lower vertebrate forms in which the eggs are extruded into the water (sea or fresh-water animals), we find protective envelopes developed to hold the eggs together in strings or masses (fishes and amphibia), the gelatinous envelope of each egg serving as a special environment during embryogenesis. As we ascend higher the eggs are provided with shells and membranes enclosing a large food supply, a more constant environment and a longer period being thus rendered available during embryogenesis. In warm-blooded animals a thermostatic mechanism is provided, and in the mammals a long period of intra-uterine placental life is also passed through, the medium which surrounds the embryo during the long period of uterine development being kept remarkably constant by these means. Everywhere we see in Nature the increasing purpose of life and of heredity in affording the fertilised egg a more and more constant and perfect environment during the critical period of its development. The only factor of any importance which is apt to disturb this is the pathogenic factor, which is one especially applicable to man.

4. In building up our knowledge of heredity, five classes of facts have been found to be useful, if not indispensable, *viz.*, the facts and knowledge of animal breeding, human breeding,

plant breeding, the laws of human and comparative embryology, and the laws of pathogenesis.

5. Heredity and variations—antagonistic forces of the organic world—have to co-operate and combine in order to render the evolution of the higher forms of life possible. Variations are as much an indispensable factor in the progressive evolution of newer and more complex forms of life from the older and simpler as heredity is for the conservation of the generic and specific types. But the relative values assigned to these factors are different in the estimate of different authors, and the difficulties are increased in the case of man because artificial complicating factors of civilisation, degeneracy, and pathogenesis are present in his case which the biologist has hitherto taken no account of.

6. Zoologists and palæontologists believe that variation must have been greater in early phylogenetic stages than at the present time. Some of the facts of palæontology when closely scrutinised “do lend support to the view that when the first existing forms of life were being established variation was considerably greater than to-day” (Sedgwick, B.A. Address in Zoology, 1899). “In the process of evolution in the higher forms of life there has been a gradual diminution in the range of variation of the different characters of the body—a gradual diminution of the responses of these characters to changes of the environment. Characters which, in the early stages of evolution, were probably plastic have become rigid. . . . The study of species teaches us that in all cases (except, perhaps, in some examples of degeneration) the plastic condition of the characters was antecedent to the rigid; that in the earliest stages of evolution the condition of extreme plasticity and ready response to changing external conditions were necessary for the survival of the species; and that, in the later stages, when special adaptations to special circumstances were developed, a certain rigidity or indifference to changing external conditions was equally necessary for its survival” (Hickson, B.A. Address in Zoology, 1903).

7. Galton's law of regression holds good for man and animals, but only for averages. What may result in individual cases cannot be predicted by its application.

8. Mutation, which is in one sense the very antithesis of regression, must be regarded as a special event, where, by

the infrequent combination and cumulative effect of physiological or pathological forces a "saltatory" variation is produced which has the character of stability and hereditability. Many examples of it have occurred in plants and animals, and it is to be regarded as established that new species have originated from existing species by mutation. An increasing knowledge of Nature favours the adoption of this attitude of mind. The increasing importance of mutation demands the attention of all future investigators in heredity and evolution.

9. Variation, in the widest sense, is of three or four kinds or modes, as manifested in the organic world—*viz.*, the continuous variation which occurs in organisms normally and according to the law of probability; mutation which occurs in a state of nature (wild) or of civilisation (domestication); pathogenic variation, which is of the nature of a pathological accident and is often a peculiar inheritance of civilised man; and perhaps meristic variations, which border on the pathogenic. These distinct processes obviously require different modes of study for their elucidation.

10. The "recapitulation theory" is essentially true when properly interpreted. The developmental phases passed through by the embryo represent, broadly speaking, a recapitulation of its ancestral history; ontogenesis is an epitome of phylogenesis. "Each animal in the course of its development from the ovum climbs up, as it were, its own genealogical tree." In interpreting the features of embryogenesis, von Baer's law should be borne in mind: "Embryonic states can only be correctly compared with embryonic states, but not with adult states. The more different two forms are, the farther back in their development must we go to find similar stages."

11. The human ovum and spermatozoon (gametes) undergo, after union or conjugation into a zygote, a series of changes regulated by the character of the conjugating elements and the nature of the medium in which they live, move, nourish themselves, multiply and develop (embryogenesis). In higher animals, and especially in the Simiæ, the development of the early stages has been described by Hubrecht in his researches on Tarsius. The germ-track, which precedes the appearance of the primordial germ-cells, may lie, and often does lie, in somatic cells. "A series of the various species of animals may be drawn

up," says Weissmann, "in which the formation of the primordial germ-cells begins at very different degrees of remoteness from the egg-cell. . . . In most of the higher Metazoa this (the first appearance of the primary germ-cells) only occurs after the formation of thousands, or even millions, of cells."

12. The doctrine of the charmed life of "isolation" of the germ-plasma is not in accord with facts, especially those facts derived from pathological study. The study of alcoholism, syphilis, plumbism, and other toxæmias, demonstrates this conclusively, as also the clinical data and genealogical tables of heredity and alcoholism collated or referred to in the foregoing chapters. Experimental evidence also supports the view, taken in this memoir, of the law of pathogenesis.

13. The special and separate influences of maternal and paternal inebriety are also proved by varied and extensive evidence quoted before, and evidence (on a smaller scale) has been quoted to substantiate the same theory as regards plumbism and syphilis. Thus it is found that 62 *per cent.* of cases of idiocy are due to alcoholic parentage (Bourneville); that, taking idiocy and imbecility together, 41 *per cent.* are of alcoholic descent (Bourneville); that 20 *per cent.* of asylum cases of insanity are the hereditary product of alcoholic parentage exclusively (Wiglesworth); that 46 *per cent.* of habitual criminals (Marro) and 45 *per cent.* of juvenile offenders are the hereditary issue of alcoholism; that 82 *per cent.* of the prostitutes in Russia are the outcome by direct descent of inebriate parents (Tarnowsky); that the lethal effect on the offspring of alcoholic mothers is high as revealed by a mortality rate of 56 *per cent.* for all new-born and young children below the age of two years, a mortality which is two and a half to three times as great as that of the sober married sisters of such inebriate women (Sullivan); and that nearly 90 *per cent.* of borderland cases between insanity and criminality in women in Paris (inmates of St. Anne Asylum) are attributable to the alcoholism of the parent, especially of the father (Robinovitch); moreover, that the pathogenic action hereditarily acting for evil and degeneracy in the progeny can also arise from other poisons than alcohol, such as absinthe, plumbism, and syphilis.

Addendum.—The concluding part of the present memoir, dealing with the physico-chemical and organic basis of heredity

and of variation, will be published in a future number of the *Journal of Mental Science*.

(¹) Being part of a paper read, with lantern demonstration, at the meeting of the Medico-Psychological Association at Oxford, February 12th, 1904.

Mental Depression and Melancholia considered in regard to Auto-intoxication, with special Reference to the presence of Indoxyl in the Urine and its Clinical Significance; Essay for which was awarded the Bronze Medal of the Medico-Psychological Association, 1904. By ARTHUR A. D. TOWNSEND, M.D., Senior Assistant Medical Officer, Barnwood House, Gloucester.

THE more modern and advanced opinion of the present day, not of necessity the most correct, regards toxic action as the most important factor in the pathogenesis of insanity. According to this view insanity is not regarded as primary disease of the brain, but secondary, and due to toxins derived from elsewhere acting upon the cortical nerve-cells, disordering their metabolism, and thus affecting their functional activity, damaging, or destroying them. The older psychologists are evidently disinclined to accept the toxic theories of the younger school, and cling with pertinacity to their opinion that mental disease is as a rule primary, and that the physical manifestations of ill-health result from a disordered central nervous system, and undoubtedly many of the facts they produce in support of their argument are difficult to refute; on the other hand, it is necessary for those who advance the theory of toxæmia as the essential factor in the production of insanity to marshal facts supporting their contention. By the term "auto-intoxication" we indicate toxins evoked within the body as a result of disordered metabolism, first, such as takes place in chronic Bright's disease, myxœdema, diabetes, etc.; and secondly, in the contents of the gastro-intestinal tract. Within the limits of this paper I propose only to deal with the second division, *viz.* auto-intoxication from the gastro-intestinal canal, for the cases coming under this group are by far the more numerous and important. For a long time I have strongly held the opinion, as a result of my own observations, that a very large

proportion of cases suffering from melancholia are due to auto-intoxication resulting from the absorption of toxins from the alimentary tract, for in depressed states generally there are various symptoms referable to disordered metabolic processes in some part of the gastro-intestinal tract. The symptoms in question that I consider as evidence of a state of toxæmia are as follow: foul breath, coated tongue, indifference to and often refusal of food, marked constipation, foul stools, anæmia (varying in degree), a sallow dirty skin, profuse perspirations and of offensive odour, skin irritations, eruptions, disorders of sensation, often leading to flesh-picking, and headache. Of course we do not in any one case find all these symptoms, but there are several common to all cases of acute melancholia. It may be suggested that the signs and symptoms that I have mentioned as those of toxæmia are but those of lowered general health, and do not in themselves afford any direct evidence of the absorption of toxins, but I have observed that the signs and symptoms that I refer to as constituting toxæmia so commonly present in states of mental depression are constantly associated with the presence in the urine of indoxyl, in greater or lesser excess.

During the past two years and a half I have been examining the urine for indoxyl in all the cases of acute insanity that have come under my notice, for the reason that indoxyl in excess indicates abnormal putrefactive processes in the gastro-intestinal tract.

Indol, C_8H_7N , is the product of the albuminous substances in the upper part of the small intestine; the indol is absorbed from the intestines, and, entering the blood, it becomes oxidised to indoxyl, C_8H_6NO , and this combining with potassium sulphate forms indoxyl potassium sulphate, and in this form is eliminated in the urine.

Indoxyl is present in normal urine as a result of intestinal putrefaction, but in very small amount. Neubauer and Vogel estimated the quantity of indoxyl separated from the urine to be from 0.005 to 0.025 grain in the twenty-four hours' secretion of a healthy individual on a mixed diet. The test that I have used for demonstrating the amount of indoxyl present is that known as Jaffe's. The urine is mixed with an equal quantity of strong hydrochloric acid, by which means indoxyl sulphate is decomposed and indoxyl liberated. A

very minute amount of calcium hypochlorite is now added (great care is necessary to avoid excess), oxidation of the indoxyl takes place, and indigo blue is formed. The mixture is then shaken up with chloroform, which takes up the indigo blue, the depth of colour indicating the amount of indoxyl present. The colour reaction in normal urine is very slight, the faintest tinge of blue ; frequently it cannot be obtained. I have always used Jaffe's test, as by keeping to one method uniformity of result is more easily obtained. To indicate the amount of indoxyl present I use the terms (1) faint trace ; (2) moderate excess ; (3) large excess.

No. 1.—A faint blue colour, as appears in most normal urines.

No. 2.—A brilliant bright blue colour.

No. 3.—A very deep blue, in some cases almost approaching to black.

To some extent of course these colours merge one into the other, but generally speaking the above terms are sufficiently definite. My observations as to the presence of indoxyl in the urine of the insane incline me to the opinion that it has considerable clinical importance. My reasons for this opinion are as follow :

1. That in excess it indicates abnormal putrefactive processes in the alimentary tract, such processes resulting in the formation of toxins which, becoming absorbed, are poisonous to the animal economy.

2. That the putrefactive process indicated in greater or lesser degree by the amount of indoxyl present may be primary and causative. Should this be established it opens up a new field for the treatment of certain mental states, and further, an early recognition of the condition and adequate treatment might possibly prevent the development of mental symptoms. I may here remark that all the cases that I have examined came under my care after the mental symptoms were fully established, and thus I have not had the opportunity to observe whether the putrefactive process preceded or followed the mental symptoms ; any opinion that I have formed regarding this most important question is the outcome of my observations during the progress of the cases.

3. Should these putrefactive processes be found to be merely secondary, and only to be considered as the result of disordered metabolism consequent upon change in the central nervous

system, they still have considerable importance, inasmuch as they indicate a condition of toxæmia, a grave departure from normal health.

Upon reference to my appended records of cases, it will be noticed that I have placed them in two groups: (1) those suffering from acute melancholia; (2) those suffering from acute mania. My reason for so doing will be at once evident, for I have found that indoxyl is invariably excreted in excess in depressed states, whilst in maniacal conditions it is only excreted in normal or less than normal amount. In two cases of acute mania out of thirteen indoxyl was present in moderate excess, and with regard to these two cases there are several circumstances that I shall later refer to.

So far I can therefore definitely say that in depressed states indoxyl is always present in excess, and that in maniacal states it is usually only in minute or normal amount. The excess of indoxyl in the urine indicates a condition favourable to the establishment of a state of toxæmia; it is therefore necessary to consider if the cases that I record present the symptoms of toxæmia, and what degree of significance attaches to the presence of indoxyl in the urine. I shall now make general reference to recorded cases and later refer to them in some detail. It will be noticed on reference to the appended record that the cases may be divided into two groups: Nos. 1, 2, 3, 4, 5, 6, 13, 15, where indoxyl was present in large excess, while in all the others only a moderate excess was found, the cases where the excess was large being with one exception much more severe in the type of melancholia than the others where the excess was moderate. This is an interesting clinical fact, and possibly an important one, for should it be ultimately established that the putrefactive process resulting in the formation of toxins is primary and causative, it is evident that the depth of the mental disorder bears proportion to the degree of intoxication. On the other hand, should the putrefactive process be secondary, it serves to show how profoundly mental states interfere with normal metabolism.

It is a somewhat striking fact that of the sixteen cases of melancholia no less than eleven were the subjects of hereditary tendencies and, doubtless following the law of inheritance, the possessors of unstable brains; therefore we may naturally suppose them to be more prone to the injurious effects of auto-

toxic agents than individuals without such hereditary tendency. I have in a small percentage of cases found indoxyl excreted in moderate excess in some apparently healthy individuals. I am unable to say whether it was excreted for any length of time, or was merely a transient condition. We may assume as necessary for a state of toxæmia either the rapid absorption of toxins in excessive doses or their long-continued absorption in smaller quantity. The fact that abnormal putrefactive processes in the alimentary tract may take place in certain individuals apparently without injury to mental or physical health, probably only indicates a resistive power to the particular toxins that all do not possess. With only two exceptions, practically all the cases presented an appearance of ill-health, and all some of the symptoms of auto-intoxication; and here, again, in the evidences of ill-health it will be seen that the physical signs are more strongly marked in those where indoxyl was excreted in greater excess, while at the same time the mental manifestations were more severe. In the remaining cases, where it was present in only moderate excess, the type was that of simple acute melancholia and the indications of toxæmia less evident.

I now propose to refer to some of the cases in detail :

No. 1. *Acute melancholia, confusional type.*—There were prodromal symptoms for two months before admission.

Mental state on admission.—Depression and mental confusion; delusions of a distressing nature—*e.g.* that she was half an animal, that her body was malformed; that she had no stomach, and consequently could not take food; that she had an animal inside her. She took no food voluntarily, and it was necessary to feed her with the nasal tube for many weeks.

Physical state.—There was no evidence of organic disease, but her bodily condition was poor and her general health indifferent. Face congested, and the facial veins engorged, hands and feet cold and blue. Skin clammy and muddy-looking, at times profuse perspiration of an offensive odour. During the progress of the case there were signs of skin irritation. She developed patches of erythema on the face; these she continually rubbed and picked, causing sores to form; breath foul, tongue large, flabby, coated and tremulous; there was complete loss of desire for food; bowels very costive and the stools most offensive. She was anæmic. She had lost weight.

On admission indoxyl was present in the urine in large excess, and it continued to be so during about four months; after this period it gradually became less, and in the course of a few weeks there was but a trace. At or about the time that the indoxyl became reduced to the

normal amount both mental and physical improvement commenced, the depression soon passed off, the mental confusion vanished, and the delusions dissipated themselves; at the same time the physical signs of toxæmia gradually lessened and soon passed, tongue cleaned, bowels acted regularly and naturally, the motions ceased to be offensive, the coldness and blueness of the hands and feet were no longer evident. She increased much in weight. This case remained under care about a year. Her recovery took place in about eight months, but she was unstable, and it was considered that longer residence would be beneficial.

The coincidence of the reduced excretion of indoxyl with the improvement in the mental state appears to be of much importance, for we can hardly believe this coincidence to be merely a fortuitous circumstance. At the same time, I do not wish to ignore the possibility that the improvement in the mental state and the diminished excretion of indoxyl may have been due to the improvement in general health and consequent re-establishment of brain equilibrium and normal metabolism, but no small part of the improvement in general health is involved in the cessation of abnormal putrefactive processes; therefore I consider that we must admit the restoration of the normal functions of the intestinal tract, as evidenced by the disappearance of the signs and symptoms of toxæmia, associated as it was with mental recovery, to be more than mere coincidence.

No. 2. *Acute melancholia, agitated type.*—Under care about fourteen months.

Mental state on admission.—Depression, extreme restlessness, delusions of a distressing nature—false charges, conspiracies, fiends, loathsome animals, that those about her were not human. She suffered from aural hallucinations. She was restless, always pacing about, most impulsive in her actions, and very violent. She refused food for many weeks, and all urine had to be drawn off with catheter.

Physical state.—Her body was poorly nourished and her general health indifferent. She was anæmic; skin sallow and greasy; sores on face from flesh-picking; breath offensive; tongue heavily coated; bowels very costive; stools foul. She suffered much from headache.

Indoxyl was present in the urine in great excess—in fact, greater than in that of any other case. After patient had been under our care for fourteen months she was transferred to another institution; this was considered advisable because, despite a considerable degree of mental and physical improvement, she had some fixed delusions. The amount of indoxyl excreted had considerably diminished, but it was still in some excess when she left our care. Afterwards, I am informed, she made a rapid recovery, but most unfortunately I am without information as to the state of her urine after she left this hospital.

The points to which I wish to call attention in this case are the severity of the mental symptoms associated with the excretion of indoxyl in such marked excess and with the general evidences of auto-intoxication, and the improvement in the mental and physical state of the patient associated with a diminished excretion of indoxyl. I was most unfortunate in being unable to follow the case to a conclusion.

No. 3. *Acute melancholia of the confusional type, later passing to a stuporous state.*—Urine contained indoxyl in large excess. There were anæmia, constipation, foul stools, and an offensive odour from the skin. For several months the excess of indoxyl persisted, then it gradually diminished, and finally disappeared; at the same time the mental symptoms improved, the indications of auto-intoxication passing away. Patient was discharged recovered, having been under treatment about eight months.

Nos. 4 and 5 require but passing notice; both died, the one from pulmonary phthisis, the other from acute tuberculosis, and as in such conditions indoxyl is usually found in excess its association with the mental state is discounted.

No. 6. *Acute melancholia, supervening after an attack of acute mania.*—Patient was under care at intervals during several years. For some months she suffered from severe depression; it then became less acute, and though still depressed and desponding about herself, her friends decided to try her at home. On admission indoxyl was found in the urine in large excess. Appetite always fairly good; tongue coated; breath offensive; bowels costive; stools foul; skin sallow and greasy-looking; abundant acne on face and body, and emanations from skin of very disagreeable odour. She was anæmic, thin and poorly nourished. Though patient did not recover she improved both mentally and physically; the excess of indoxyl diminished, but when she left it was still present in moderate excess.

Nos. 7 and 8. Sisters, both the subjects of acute melancholia.

No. 7 was suffering from mania, not melancholia, on admission. She was excited, restless and hilarious, but the mania was of very short duration; within a fortnight of her admission depression supervened; the case then followed the course of an ordinary melancholia. She was very depressed, she shunned the society of other patients, said that an offensive odour emanated from her body and that she was unfit to associate with others. It was difficult to persuade her to take sufficient food; said that all the food she took went to her head. About this period she continually craved for aperients in excessive doses; this craving was doubtless due to the great discomfort she suffered following the ingestion of food. She was constipated and the stools were highly offensive. She was anæmic, but not markedly so. Her general appearance was not suggestive of auto-intoxication, she being a clear-skinned, healthy-looking girl. When admitted indoxyl was excreted in moderate excess, and this excess persisted throughout despite physical and apparent mental improvement. So well did the patient appear to be that her

discharge was contemplated. She had been removed from the main building to one of the detached villas. Patient was, so far as could be judged, perfectly well. She escaped and committed suicide. She had never at any time manifested any suicidal tendency. It is of course evident that we were mistaken in considering her to have recovered. She was naturally a girl of unusual self-control, and capable of masking her feelings; she left a letter which showed clearly a state of mind of which we were entirely ignorant.

The fact that the excretion of indoxyl did not diminish despite the apparent mental and physical improvement caused me much surprise, as in all other cases where recovery had taken place the excess of indoxyl had disappeared from the urine.

No. 8. *Acute melancholia*.—Still under treatment. On admission, about fifteen months ago, she was a pallid, unhealthy-looking girl, very anæmic; the emanations from the skin were profuse and offensive, bowels costive, and stools foul. The mental symptoms were very similar to those of her sister, No. 7.

For many months the depression continued. Indoxyl was excreted in moderate excess. During the past three months there has been a marked improvement in her mental and physical state, the excess of indoxyl has gradually diminished, and has now disappeared. Patient is now practically well, and will shortly be discharged recovered.

No. 9. *Simple melancholia*.—As in other cases, the alimentary tract was disordered, breath offensive, tongue coated, appetite indifferent, bowels costive, and stools foul. Indoxyl was present in moderate excess. As improvement in the mental state took place, this diminished, and when patient was discharged, recovered, the urine was normal. In this case the mental symptoms were never severe; they rapidly improved, and the excess of indoxyl soon disappeared.

No. 10. When admitted, fifteen months ago, suffering from acute melancholia, patient rapidly passed into a stuporous condition, and has remained so ever since. An unhealthy-looking woman, skin sallow and greasy; she perspires profusely; bowels costive; motions offensive; circulation very sluggish; hands and feet cold and blue.

Throughout, indoxyl has been excreted in moderate excess; there has not been the least mental improvement.

No. 11. *A case of simple melancholia*.—On admission, indoxyl was present in the urine in moderate excess; tongue was coated, breath offensive; bowels very costive; motions foul; appetite was always good. Patient suffered from rather profuse perspirations, having an offensive odour. As mental improvement took place the excess of indoxyl diminished and disappeared, and patient was discharged, recovered.

No. 12. *A puerperal case*.—Patient was acutely melancholic; before admission she attempted suicide, threw herself from window and sustained a fracture of base of skull. Indoxyl was present in moderate excess. Tongue coated; appetite fairly good; she was constipated;

stools were offensive ; there was a slight degree of anæmia. Patient made a rapid recovery, and the excess of indoxyl disappeared.

No. 13. *Acute melancholia*.—Confusional type. Sallow, greasy skin ; sores on face from constantly picking ; tongue coated ; breath offensive ; refuses food ; bowels costive ; stools foul ; marked anæmia. Indoxyl present in large excess. Patient has only recently been admitted, and is still under treatment.

No. 14. *Acute melancholia*.—Agitated type. This case did not come under my notice till about six weeks after admission, so I am unaware of the state of the urine at that time. When I first examined it indoxyl was present in moderate excess. Tongue clean and appetite good ; bowels costive ; motions offensive ; profuse perspirations, skin muddy and greasy ; pustular acne on face and body. As the depression became less, the excess of indoxyl diminished, the symptoms of toxæmia disappeared, and when patient was discharged, recovered, there was no excess of indoxyl.

No. 15. *Acute melancholia, agitated type*.—On admission indoxyl present in large excess. Tongue coated ; breath offensive ; bowels costive ; motions foul ; skin sallow, greasy ; sores on face and body from constant flesh-picking. The mental symptoms were of a severe type during the time she was under our care. Neither her mental nor physical state manifested the least improvement during the time she was under observation, and the excess in indoxyl did not diminish. After about ten months she was transferred to another institution.

No. 16. *Acute melancholia*.—On admission indoxyl was present in moderate excess. Patient was thin and poorly nourished ; tongue clean ; appetite fairly good, bowels regular, but motions very offensive. She was anæmic, and had sores on face from flesh-picking. Patient has been under treatment for about a year ; she has much improved mentally, and there is now but little depression ; she has gained much in weight. The anæmia has disappeared ; skin is clear and healthy-looking ; the motions are natural. The indoxyl has gradually diminished, but there is still a slight excess.

On reference to my appended record of cases, 16 in number, 8 have recovered, 3 have died, 3 are still under treatment ; 1 has improved sufficiently to return home ; 1 has been transferred to another institution. In 7 of those recovered, the diminution and disappearance of the excess of indoxyl in the urine has taken place *pari passu* with the improvement in the physical and mental health of the patient. In all these cases the excess of indoxyl disappeared when recovery took place.

The signs and symptoms of auto-intoxication, varying in degree in the different cases, bore distinct ratio to the excess of indoxyl and the depth of the mental symptoms. Not until the excess of indoxyl in the urine had greatly diminished or vanished did the symptoms and signs of toxæmia pass off. (Case No. 7 is somewhat at variance with this statement, as

despite the excess of indoxyl persisting the symptoms of toxæmia seemed to disappear.) As the excess became less the improvement became manifest, tongue cleansed, breath inoffensive, appetite improved, bowels regular, stools normal, anæmia rapidly yielded to treatment, skin healthy-looking; patients previously thin and poorly nourished gained greatly in weight.

Treatment may be considered under two heads—dietetic and medicinal. Milk is undoubtedly the best diet that can be given where there is excess of indoxyl in the urine. The patients who require to be forcibly fed do much better than those who take ordinary diet. With a purely milk diet, putrefactive changes diminish much more rapidly. At one time it was my custom to give several eggs daily, but I have now discontinued their use; they appear to favour intestinal putrefaction as measured by the excess of indoxyl.

Undoubtedly in all these cases assimilation is defective, and plain milk is the most easily assimilated food.

I have used various drugs with the purpose of controlling putrefactive changes in the alimentary tract, *viz.* calomel in small doses, salol, urotropine, naphthaline, creasote, but, unfortunately, all of them without any satisfactory result, and I cannot say that any drug that I have used has made any appreciable difference to the amount of indoxyl excreted. This is perhaps hardly to be wondered at when we consider the danger in giving any drug in sufficient doses to have appreciable antiseptic effect upon the large area involved in the putrefactive change. It would appear that we are still without an efficient intestinal antiseptic.

The only treatment that I have found to diminish the excess of indoxyl is free purgation, and a diet exclusively of milk, but in many cases it is difficult and often impossible to get patients to submit to it.

So far as my investigations have been carried they have, briefly to recapitulate, enabled me to make the following deductions:

- 1st. That in depressed states indoxyl is excreted in excess.
- 2nd. That patients excreting indoxyl in excess exhibit symptoms and signs of toxæmia.
- 3rd. That in states of mental elation there is seldom any increase, the amount excreted being normal or less than normal.

4th. That in some states of mental alteration indoxyl is excreted in excess during both melancholic and maniacal phases.

5th. That the more severe the mental attack the greater the excess of indoxyl.

6th. The greater the excess of indoxyl the more marked are the symptoms and signs of toxæmia.

7th. That mental recovery was in the cases I record preceded by the reduction to normal of the amount of indoxyl excreted.

There is not the least doubt that the subjects of melancholia suffer in greater or less degree from the absorption of toxins, the products of abnormal putrefactive changes in the intestinal tract. It is fully recognised that excess of indoxyl in the urine affords the evidence of morbid putrefactive processes in the upper part of the intestinal tract (the *dadrum duodenum*).

So far as my observations have been carried they have enabled me to show that indoxyl is found in excess in the urine of patients suffering from acute melancholia ; it therefore follows that we have in the intestinal tract of these cases a condition favourable to the formation of toxins. In the brief records of the various cases, I have pointed out those signs and symptoms suggesting the absorption of these toxins and the establishment of the state of toxæmia. Whether, however, the putrefactive processes associated with these mental states are primary and causative, or whether they are but secondary and complicating, future investigation must decide.

	Sex.	Disease.	Indoxyl.
1	Male	Acute mania	No excess.
2	Female	Acute mania, recurrent	No excess.
3	Female	Acute mania	No excess.
4	Female	Acute mania	No excess.
5	Male	Acute mania	No excess.
6	Male	Acute mania	No excess.
7	Female	Acute mania	No excess.
8	Female	Acute mania	No excess.
9	Female	Acute mania	No excess.
10	Female	Acute mania	Moderate excess.
11	Female	Folie circulaire, maniacal stage	Moderate excess.
12	Female	Acute mania, puerperal	No excess.
13	Male	Acute mania	No excess.

No. 10.—For some months before patient was admitted she suffered from acute melancholia ; acute mania then supervened, and she was placed under

our care; the attack was very short in duration, and she made rapid recovery.

No. 11.—Has been several times under observation, during both maniacal and melancholic phases. Indoxyl in moderate excess has been found in the urine. In several cases of folie circulaire, and also of alternating insanity, I have found a similar condition.

	Sex.	Mental disease.	Indoxyl.	Remarks.
1	Female	Acute melancholia, confusional type	Large excess	Recovered.
2	Female	Acute melancholia, agitated type	Large excess	Recovered after transfer to another institution.
3	Female	Acute melancholia, confusional type	Large excess	Recovered.
4	Female	Acute melancholia, confusional type	Large excess	Did not improve; died from phthisis.
5	Female	Acute melancholia, agitated type	Large excess	Did not improve; died from acute tuberculosis.
6	Female	Acute melancholia, supervening upon acute mania	Large excess	Improved.
7	Female	Acute melancholia (simple)	Moderate excess	Died.
8	Female	Acute melancholia (simple)	Moderate excess	Recovered.
9	Female	Acute melancholia (simple)	Moderate excess	Recovered.
10	Female	Acute melancholia, stuporous	Moderate excess	Still under treatment; not improving.
11	Female	Acute melancholia (simple)	Moderate excess	Recovered.
12	Female	Acute melancholia (simple)	Moderate excess	Recovered.
13	Female	Acute melancholia, confusional type	Large excess	Still under treatment.
14	Female	Acute melancholia, agitated type	Moderate excess	Recovered.
15	Female	Acute melancholia, agitated type	Large excess	Transferred to another institution.
16	Female	Acute melancholia	Moderate excess	Still under treatment, but recovering.

Psychology of a particular Form of Pathological Intoxication. By Professor A. PICK (Prague).

IT is currently admitted that the state of intoxication in neuropathic persons differs from that of normal individuals or of habitual drunkards. Of this peculiar state Bonhoeffer has lately given an excellent account, but when one attempts to gain a clear conception of it the clinical cases scarcely bear out the general description. It will, therefore, perhaps be not inappropriate to go over some cases of this pathological form of

intoxication which are not yet numerous and endeavour to gather them into a more definite group.⁽¹⁾

On October 27th, 1902, at nine o'clock in the evening, there was brought to the clinique an unknown man, who afterwards designated himself as named T. Anton, locksmith's apprentice, æt. 20 years. It was stated that in the Karlplatz, where there were a number of low drinking-dens, he had attempted to overthrow the benches on the square, crying out that he was Prince Rosenkranz. At the police office he was still unruly and tried to hang himself in the cell. When brought handcuffed to the examination-room he had the appearance of being drunk, had a confused and sleepy look, and kept on muttering something about cigarettes ("Drama"). The preliminary questions being over, he allowed himself quietly to be led to the clinique. The appearance of intoxication had now disappeared and he carried on the following conversation with the assistant: "What are you called?" "Prince Rosenkranz, but if my father lived it would be different." "Who was your father?" "He is dead now." "What was he called?" "I don't know." When asked where he lived, after reflecting a little, he answered, Koschir (a suburb of Prague). He replied to many further questions about his dwelling with "Koschir." When asked how he lived he did not answer and remained dull to repeated questions. "What had he eaten to-day?" "Only three kreuzersworth of apples." "What had he eaten yesterday?" "Nothing." "What did he generally eat?" "Na, this week there was not yet Saturday, and on Saturday I ate nothing." When he was undressed and the assistant asked him the cause of a large lupus mark on his forearm, he said: "That is my birth mark of nobility." "How do you live?" "Na, I have sent for 'Dramas' (the aforementioned cigarettes); they would not bring them to me, and therefore I was annoyed." "Where did he get the two kreuzers?" "A woman gave them to me." Then he whispered confidentially into the assistant's ear: "I am Prince Rosenkranz. I was repudiated, but I am noble." "What are you generally called?" "Prince Rosenkranz." "But by ordinary people?" "Well, Mr. Anton, they call me, but I have been put away, and so I must beg; but tell nobody. I tell you you are a fine gentleman. You are certainly noble." When told he was in the hospital for insane he answered promptly, "But I am not silly." He

could only count the beginning of the multiplication table and that very slowly. The mucous membrane reflexes were prompt ; needle pricks were readily felt, but when pushed deeper were not felt as painful.

T— slept the night after this examination and was quite clear in the morning, discovered where he was and gave an account of himself. He had been long without parents and had led an irregular life. Having been without work for some months, he had lived on charity and had drunk all he could get for the last two nights. He knew nothing of yesterday's excess. About Prince Rosenkranz he explained that he had taken part in private theatricals and perhaps had seen *Hamlet* acted. His bodily condition, apart from the lupus, presented no striking signs of degeneration. There were no convulsions or symptoms of mental derangement. T— shows no inclination to work, and on the whole he gives the impression of being a degenerate, and all that has since transpired of his history goes to confirm this.

A fortnight later in the evening of an idle Monday he was again brought to the clinique. He had been disorderly at the Karlplatz opposite the Military Hospital ; he was found furiously beating on a bench ; he offered to strike the soldier of the guard who came up, ran after him into the Military Hospital crying that he was Prince Rosenkranz and must kill everyone ; he called the policemen dogs. He was brought, tied and smelling of liquor, to the clinique. He was then drowsy and soon fell asleep ; in the morning his mind was quite clear, but he had forgotten all that had happened during the time of excitement. Brought in a third time shortly afterwards, he had the appearance of great heaviness and listlessness. When asked his name he muttered something. The only words which could be understood were : " They have not brought me the Dramas." It was reported that in the afternoon he had entered a drinking-shop and begged to be allowed to sit there ; shortly after he attacked the landlord with a ladder which he picked up and then ran out crying : " I am Prince Rosenkranz," threw himself on a passer-by and shouted to him : " You are not a nobleman." He demanded Drama cigarettes from the police, then he made as if he were waiting for a carriage to take him away. After sleeping at the clinique he completely regained his self-possession forgetting,

as formerly, what he had done save that he had gone into the shop.

Thus we see that T— after every excess in drinking passes into an abnormal state of consciousness distinguished by two peculiarities. First, his mind is separated from the usual sequence of his thoughts, and secondly it is narrowed into a circle which is very circumscribed but always identical. While I adhere to the views of Moeli (*Allgemeine Zeitschrift für Psychiatrie*, 57, page 186), still, I differ from him in that he treats these pathological phases as delusive conceptions. I believe that in this case we have to do, not with delusions *created in* the state of abnormal consciousness, but with something fixed which readily rises every time to the surface through or during this peculiar mental condition. It corresponds with pathological dreaming in children and with what Pierre Janet (*Neuroses et Idées Fixes*, 1898, I, page 393) has described as “*rêverie subconsciente*,” the relations of which to the waking condition he has also indicated. It is especially important in dealing with this subject to note the monotonous and dream-like character of the delusions of grandeur which in these cases are frequent. In the same passage Janet points out how these “*rêveries*” bring to maturity submerged dispositions and how they assume a more precise character when the conscious mental life becomes fainter; a step further we see that through a diminished conscious activity the impressions of dreams come to the foreground and occupy the place of the narrowed scope of consciousness.

These considerations help us to answer a question which C. Mayer (*loc. cit.*, page 248), in dealing with the delusions he describes, has treated as quite incomprehensible, why in every one of his four cases there is a delusion of grandeur. Delusions of grandeur are, as a rule, the content of pathological dreaming, and in consequence of the weakening of the energy of the normal consciousness they appear in these states of intoxication.⁽²⁾ They do not, as Mayer there mentions, require for their production any previous or accompanying emotion, nor is it surprising that delusions of such a character appear, although the emotional states do not seem to favour them.

These views have a safe clinical ground. Let me here observe that the hallucinations which usher in the grandiose stage of paranoia first appear upon a mental state prepared for

them by corresponding conceptions, and that the same relation may be observed in the development of the delusions of grandeur in paranoia without hallucinations.

In connection with the arguments adduced in support of the views advanced regarding the significance of dreaming in this state of mental obscurity, I may make a few remarks upon the origin of the name "Prince Rosenkranz." It may be assumed that this notion originated from the part he took in the theatricals, either because this stage figure at once furnished the object in the dream or perhaps only suggested the idea of high birth, and that the name became casually associated with it. This view finds support in an observation of Krafft-Ebing's (*Arbeiten*, iii, 1898, page 93), in which some dreamy delusions seem to have been caused by a previous occupation at a theatre. This observation further serves to explain how ideas of grandeur frequently owe their origin to some recent real occurrence. Here the explanation by sub-conscious dreaming obviously fails, and these cases, like those described by Mayer, would remain incomprehensible (*loc. cit.*, p. 249). The patient described by Krafft-Ebing was a habitual drunkard, who first came to the clinique as King Ottocar of Bohemia. Fifteen years before he had several times been employed as supernumerary in the acting of the play *King Ottocar's Fortune and End*. This piece made a great impression on his mind. Two years after he was brought a second time to the clinique with transitory delirium from drinking. This time he came into the hands of the police, with his little son, five years of age, whom he announced as the Crown Prince Ottocar, and himself as the Emperor of Mexico, and pretended he had returned from Mexico the day before.

The special ideas of grandeur of this patient had obviously been derived from his reading, or from some event in his experience. The idea about his son furnishes the explanation of how the delusions about his own personality had arisen. The brooding over the play about King Ottocar, and the accounts of the tragical end of the Emperor Maximilian of Austria, had fostered a latent megalomania from which his delusive notions had sprung.

One may here ask why, considering the commonness of day-dreaming, from childhood to old age, such cases are not oftener

met with. But we must remember that in the description of similar patients the psychological analysis is not often pushed far enough, or not clearly stated. In other cases such reveries do not occur, or are obscured by other symptoms.

In support of the views here announced I add another observation of my own. About two o'clock a.m. of March 12th, 1902, a man was found on the streets in his under-clothing, bare-footed and bare-headed. He said that he was a baron who was travelling to America. He thought the watch-house was the post-office and that an admission card was a railway ticket. He appears to have said to the police that he had lately been drinking heavily, and that two days before he had been let loose in Moravia as "a fool." When brought to the clinique he was trembling, spoke about deer which he had seen on the streets, and believed that he was in Hamburg. He said that he had run out of the house in his drawers because he thought that he was in a forest in America, and it was hot. When the eye-ball was pressed there were visions.

After he had slept some hours, he told us that he was called Knotek, that he was in Hamburg, his girl had gone to America, his father was a baron, and that he had inherited the name Knotek from his brother. The patient was heavy and torpid. The physical examination showed tremor of the hands, a dicrotic pulse, increased sensibility of the nerves, and abnormal excitability of the muscles, especially of the face; the general sensibility was normal. There was tenderness to pressure in the right iliac region. There was the mark of an old bite in the middle of the tongue.

The next day his mind was quite free, and he gave the following account of himself: He had learned on Sunday that his sweetheart had left for America. On this account he had taken to drinking, till the 11th, when he pawned his clothes and got drunk again; from this moment he has complete amnesia. Kaucky, the name he gave to the police, was his friend's who had drunk with him in the public-house. He recalled that he had spoken about his affairs with this K—, and then ran away, saying that he was going to America. To explain why he called himself baron, he only knew that he had read a novel by a Baron Rostoptschin some weeks before; he also recollected that he had said to the police that he had been put out of the shop or business as a fool; as cause of this statement

—true in fact—he said that when there he once, instead of men's gloves, had cut gloves for children, and, therefore, the master had called him a fool. About all the rest, and especially why he had said that his father was a baron, he had nothing to explain.

He afterwards related the following: He drank a deal, especially when off work. He dressed well, and used jocularly to style himself Baron Chotek (the name of a well-known Bohemian noble family sounding like his own). In the year 1896 he, when drunk, told the landlady in a wine-shop she could wait for payment as he was a baron's son. Some years ago he had (probably when drunk) provoked a riot during which he described himself as the son of a baron. The year before he once came home very drunk and demanded of his mother, "Are those boots for a baron's son?" On awakening next morning he had forgotten this. Respecting the old bite in the tongue he had on being turned away from his employment spoken in a rage while his tongue was between his teeth.

After this the patient returned twice to the clinique, the first time with well-marked symptoms of delirium tremens. He spoke of his plans of going to America. The second time, fearing delirium, he came to the police, and begged to be taken in lest he might rush about and throw away his clothes.

Although the foregoing case is not quite typical, yet if we miss out the variations that have the character of delirium tremens, it agrees with the views which I have advanced, and gives a further proof that these ideas of grandeur which appear every time in the state of intoxication arise out of a state of "rêverie." I think it possible and indeed probable that it was the likeness of his name with that of a well-known noble family which inspired the fancy that he was a baron. This dimly brooding in his mind led him to try to dress himself better than his companions. We have seen how, whenever he was intoxicated, this idea arose, for in this state his consciousness becomes narrower than in his normal frame of mind in which the notion about a baron existed, without, however, in the latter case, influencing his conduct.

Thus this case forms a link of connexion between cases of derangement already mentioned in which such insane ideas do not appear in the usual waking condition, and those cases described by Krafft-Ebing (*Arbeiten aus dem Gesamtgebiete*,

i, 1897, p. 52) in which insane delusions are evolved from ideas in ordinary life taking on an extravagant form.

The correctness of the views here advanced is confirmed by a case cited by Moeli as an example of his form of transitory delirium. This was a workman aged thirty-six who after suffering from a blow became intolerant of alcohol. After any excess in liquor he was troubled with sensory derangements and impairment of consciousness without convulsions. There were also fits of transitory insanity during which he twice threw off his clothes on the street. On one of these occasions he said that he was the Shah of Persia, and that he was in his bedroom. It is likely that on the other occasion he had the same delusion.

This condition of transitory delirium may be regarded as resulting from exhaustion of the brain, as has been pointed out by Mayer and also by Meynert. We recognise the formation of such delusions in the second patient described, who took the name of a friend and a baron out of his reading.⁽⁸⁾

This form of pathological intoxication is very rare; we do not find it described in the work of Mayet (*An d'Hygiene Publique*, Fevr., 1202). Something like it may be found in his "*délire éphémère de la première ébauche de la folie alcoolique*," which in Germany we call abortive delirium; it comes also close to what the French express by the words "*bouffées délirantes*." Arnaud (Ballet, *Traité de Path. Ment.*, 1903, p. 796) points out how excesses in drinking are followed by paroxysms of insanity, sometimes passing away in a few hours. On closer examination the condition of consciousness described in our cases even with the amnesia, in spite of outward resemblances, is identical neither with the forms of the French authors nor with the "*pseudo-ivresse délirante*" of Lentz (*Bullet. de l'Académie Roy. de Med. de Belgique*, 1898, p. 15, Sep. Abdr.). A variety designated by Lentz as paranoiac only shows ideas of persecution. The forms described by Arnaud and Lentz resemble one another. Arnaud further points out the likeness of these forms to the delirious paroxysms in hysteria which may be regarded as transitory hysterical insanity. We may presume that alcohol may become the exciting cause of the somatic symptoms of hysteria taking the part which in other cases is played by emotion, and bring on the abnormal mental derangement. Alcohol thus under certain circum-

stances becomes the cause of a form of insanity resembling the hysterical.

(¹) For example, C. Mayer (*Fahrbücher für Psychiatrie*, xi, p. 37), who has collected three years' material from the Vienna General Hospital, states that those affected in this way after intoxication—which, after Meynert, he names a half dreamy condition—only bear a small proportion to the other alcoholics.—(²) Mach, in his *Analyse der Empfindungen*, 2nd edition, p. 133, says that the mere missing of inhibiting associations may lead to delusions of grandeur.—(³) Griesinger (*Pathologie und Therapie der psychischen Krankheiten*, 2 Auflage, 1861) has already pointed out how often the last conceptions before the outbreak of insanity give a character to the delirium.

Kinds of Insanity. By CHAS. MERCIER.

IN the last number of this JOURNAL, I gave reasons for concluding that the table of forms of insanity, suggested by the Statistical Committee, was unsatisfactory, and suggested a new classification of cases of insanity to be substituted for their arrangement. Certain objections that are likely to be taken to the classification that I have proposed are worth considering, and would have prolonged the previous communication to an unwieldy length if embodied therein; I propose, therefore, to consider them now.

The arrangement that I have suggested divides, first, the congenital from the non-congenital cases. This division is eminently natural, and has been adopted in every classification with which I am acquainted. I think, therefore, that it needs no formal defence. The non-congenital cases were divided, it will be remembered, primarily with regard to the degree of intensity of their symptoms; secondarily with respect to the predominant symptom that they display; and the cases of general paralysis were separated throughout from cases of non-paralytic insanity. The question that I now propose to discuss is whether a further classification of the latter kind is not desirable; in other words, whether there are not, included within the group of non-paralytic insanity, diseases sufficiently distinct to merit the same separation that is given to general paralysis. Is it not, it may be objected, as important to know the number of cases of adolescent insanity, of puerperal, climacteric, senile, alcoholic, phthisical, epileptic, and other named varieties of insanity, as to know the

number of cases of general paralysis of the insane? How are we to hold up our heads before our Continental and American brethren if we omit from a table of forms of insanity such distinct diseases as paranoia and dementia præcox?

These questions can be answered best by taking each of the varieties of insanity alleged to be distinct, and investigating whether, in the first place, it is in fact a distinct disease, and in the second, how far it is left undistinguished in the tables that I have suggested. Before entering on this investigation, however, it is necessary to come to some understanding as to what is meant by "a disease." As far as I know, there is no definition, no satisfactory definition, in existence of disease, beyond that it is a departure from health. But it is clear that we mean something more than this when we speak of general paralysis as a disease, and deny the title to palsy, or jaundice, or mania. All of these are departures from health, but the first is entitled, we feel and know, to be considered "a disease," while the others are not. The statement is often made that the only perfect classification to insanity would be a pathological classification, by which I understand a classification founded upon morbid structural alterations; and those who hold this view would, I suppose, base the claim of general paralysis to be considered "a disease" upon its specific morbid appearances. I doubt whether this view is tenable. If the anatomical change found in general paralysis had been discovered after death, but no corresponding disability had existed during life, I do not think the anatomical change alone would have been called, or would have been entitled to be called, "a disease." The connotation of the word "disease" includes, I think, as an integral and necessary part, the existence of specific symptoms during life. When the patient is dead, it is inappropriate to speak of disease as existing in the cadaver. What is left is not disease, but morbid structure. We may speak of a diseased kidney, a diseased liver, or brain, but what we mean is a structure showing alterations from the normal structure. Disease is departure from health. Health is the efficient performance of function. Disease includes, therefore, of necessity, inefficiency of function; and structural alteration, at any rate, recognisable alteration of structure, does not of necessity enter into our concept of disease. There are plenty of "functional"

diseases in which no structural alteration has been found, and this is especially true of insanity. And, granting that, as our knowledge extends, more and more "functional" diseases are taken out of that category, and found to have a recognisable structural basis; yet there still remain many in which the translation has not been made; and we cannot wait to classify disease until we know in every case the anatomical change, even supposing that in every case such change exists. A clinical picture is, then, essential to the concept of disease. Disease was recognised, individual diseases were recognised and named, long before the structural changes on which they depend were known. And individual diseases are still recognised and named, and admitted to be distinct diseases, to which no structural change can be assigned. There are few, I think, who would deny the term disease to asthma, to angina pectoris, or to tic-douloureux. Specific anatomical change is not, therefore, essential to our notion of disease. What is essential is a specific clinical picture.

The problem with which we are dealing is now better defined. It may now be stated thus: Are there, within the disease insanity, disorders so distinct in their symptoms and course as to be separable from one another, and each entitled to be considered a distinct disease? As to general paralysis, the question must undoubtedly be answered in the affirmative. Its symptoms are so distinct that it is recognisable at every stage in its progress. It has a definite history, runs a definite course, and forms a complete clinical picture, separable from that of any other case of insanity. It is undoubtedly entitled to be called a disease. Let us now take the other varieties of insanity, ordinarily dealt with and described as distinct, and examine their titles to be called diseases.

Acute delirious mania affords a distinct clinical picture, both in its symptoms at any one time, and in its course; a picture which prevents it from being confused with any other case of insanity, and therefore may truly and properly be called a disease. In any scheme of classification of forms, or of cases, of insanity, it is entitled to a separate position; and a separate position is assigned to it in the table that I have proposed. There is no such position in the Table proposed by the Statistical Committee, nor is there any in the Table at present in use.

Taking next the group of insanities of Reproduction, so called, I think it will be admitted that Puerperal Insanity presents us with no distinct clinical picture. The very fact that it has been divided into puerperal mania and puerperal melancholia is proof of what I say. Puerperal insanity is acute insanity occurring within an uncertain time of child-birth; and, if the antecedent of child-birth is unknown, or is disregarded, there is nothing whatever in the clinical picture of the disease that is different from other cases of acute insanity that have no connection with the puerperium, or even from acute insanity occurring in men. If acute insanity following child-birth is to be regarded as a disease distinct from acute insanity that does not follow child-birth, then acute rheumatism which follows a wetting must be regarded as a disease distinct from acute rheumatism that does not follow a wetting. Even if it be regarded as a distinct disease, however, the number of cases of puerperal insanity can be extracted, without risk of error, from the causation table, if that table is properly constructed.

The insanity of Pregnancy has a much better right to be considered a disease, for here the fact of the pregnancy is a continuing feature in the clinical picture, a feature which at once marks off the case from all other cases of insanity. But two things should be had in remembrance with respect to insanity in pregnant women. First, although the insanity is associated with pregnancy, and post-dates the pregnancy, yet the pregnancy is not necessarily the only nor the chief cause of insanity; and it may not be a cause at all. Pregnant women are not exempt from the causes that produce insanity in non-pregnant women and in men, and the insanity of a pregnant woman is not necessarily an insanity of pregnancy. It is notorious that the cessation of the pregnancy, whether produced by natural or by artificial means, is by no means always followed by the cessation of the insanity. Second, there is nothing in the insanity of a pregnant woman, except the pregnancy, which differentiates the case from other cases of acute insanity. Lastly the number of cases in which insanity occurs in association with pregnancy can be gathered, if required, from the Causation Table, and need not be indicated again in Table IV.

What is true of the insanity of pregnancy is even more

emphatically true of the insanity of Lactation. It is an insanity of exhaustion—of innutrition—and differs in no respect in its clinical features from other cases of insanity of similar origin. It, also, is provided for in the Causation Table.

The next variety of insanity commonly distinguished is that of the climacteric, and this is open to the same objections as apply to the insanity of pregnancy. At present, every case of insanity occurring in a woman between the ages of 40 and 55 is called climacteric insanity; and yet it is quite possible that many of them have nothing to do with the menopause. Many of the same causes, that produce insanity at other ages, may operate upon women about the climacteric period, and may be as competent to produce insanity at that as at other ages. And when the menopause does act as the efficient cause, or as one of the efficient causes, of insanity, it does not follow that it will impress upon the insanity such a specific character, such a peculiar facies, as to entitle it to be considered a distinct kind of insanity. Granting, however, that, in some cases of insanity occurring at this period, there are specific features, I think such cases are sufficiently distinguished by separate indication in Table VI.

Insanity of times of life offers fewer difficulties. For my own part, I doubt whether insanity at the period of adolescence has any better title to be called adolescent insanity, than broncho-pneumonia in the adult has to be called adult broncho-pneumonia. There are, in both cases, unimportant differences in the clinical pictures, due to the different constitutions of individuals at different ages; but these differences are not, in my opinion, of sufficient gravity to constitute distinct diseases. In any case, the number of cases of insanity at the period of adolescence can be obtained from the Age Table.

With respect to the claim of senile insanity to be considered a distinct disease, in virtue of the uniform and specific clinical picture that it presents, I had some doubt until I referred to Dr. Clouston's account of the malady. "I confess," he says, "I was myself astonished at the immense variety of symptoms present" [in different cases]. This dictum at once abolishes the right of senile insanity to a distinct place in nosology. The term means, it appears, insanity, not assigned to any distinct category except by its occurrence in advanced life. It would, in my opinion, be unreasonable to base the differentia

of a disease upon so slender a foundation ; and, besides, the number of cases will be shown by the Age Table.

The insanity of epilepsy has a good title to the denomination of a disease. Not only is it accompanied throughout by the periodic attacks of epilepsy, but it is marked, with some approach to distinctness, by its turbulence and aggressiveness, and by its periodic fluctuations in connection with the fits. The clinical picture is, therefore, fairly distinct, and accordingly a separate place is provided for it in the Table IV which I propose.

Cases of insanity associated with different forms of bodily disease, whether the bodily disease may justly be regarded as a cause or not, in no case present a clinical picture of sufficient distinctness to entitle them to separate rank as diseases. Stupor is already provided for in the table ; paranoia, recurrent and alternating insanity also are provided for. Dementia, that convenient rubbish-heap, is sifted, and its several constituents apportioned into their proper places. The only cases of insanity which remain to be considered are dementia præcox, hebephrenia, katatonia, fixed delusion, and alcoholic insanity.

Dementia præcox does not require much consideration. No form of insanity that cannot be, or that has not been, specifically defined or described is entitled to be considered a distinct disease ; and this stage of distinction has not yet been attained by dementia præcox. There is not yet in existence any definition or description of dementia præcox on which its votaries are agreed ; nor is there one which enables it to be distinguished from the residue of insanity which remains when the other distinct forms are eliminated. It need not therefore detain us longer.

Hebephrenia and katatonia are in a somewhat different position, for these are fairly distinguishable forms of insanity in the very few cases in which these characteristics are well marked. Their individuality is, however, destroyed for purposes of classification by the fact that they shade off by insensible degrees into the mass of insanity that is not hebephrenia nor katatonia. To insert them into a table of classification would therefore be to leave that table completely at the mercy of the personal equation of the individuals who severally contribute to its compilation. It is quite true that the same may be said of stupor, but it cannot be said of stupor with the same emphasis

and weight. There are many cases of acute, and some of sub-acute insanity in which traces of stupor may be discovered by the attentive observer; but the improper classification of such cases is provided against by the condition that classification is to go by the *predominant* symptom; and the predominance of a symptom, as of stupor, is much more easily decided upon than the existence or non-existence of the group of qualities that go to make up katatonia or hebephrenia.

I am inclined to think that fixed delusion merits a separate place in a table of classification. If we keep the term paranoia for those cases of fixed delusion in which the delusion is persecutory in character, there is a considerable remnant of cases characterised by enduring, unchanging delusion, extending over many years, and not accompanied by conduct to match. The character of the delusion is either a glorious exaltation, or it refers to change of part of the personality, as that there is a weasel in the stomach, or that the brain has been removed, etc. The symptoms are well characterised, sharply cut, distinct from those of any other malady, and the course also is characteristic. The symptoms endure for many years without material change, and never disappear. The clinical picture is complete. I think that so well characterised a variety of insanity deserves a separate place in a nosology, and a place can be provided for it in the table that I have suggested, by dividing the delusion column into two, entitled respectively Variable Delusion and Fixed Delusion. The latter column would be re-divided into three, headed respectively Persecutory, Exalted, and Personal. By this small addition to the table, not only would fixed delusion find the separate place to which it is entitled, but the cases of paranoia also would appear in a single column, and the total would be given at the foot of the column. This is a useful addition to the table, easily made, and does not increase materially the labour of compilation.

I now come to alcoholic insanity. Around this variety of insanity there are special interests and special difficulties. Perhaps there is no subject connected with insanity in which the general public is so much interested, or to which it will turn so eagerly to these tables for information, as that of the production of insanity by alcohol. The statistics of causation must be obtained from the causation table; but it is obvious that the statistics of alcoholic insanity have a special interest

of their own apart from those of the causation table. There are many cases of insanity which are wanting in the specific features of alcoholic insanity, but into whose causation alcohol enters, and all these would be apportioned to the causation of alcohol in the causation table, while they would be excluded from the statistics of alcoholic insanity in the Tables of Forms.

First must be discussed the preliminary question whether alcoholic insanity presents such a specific clinical picture as to entitle it to be considered a distinct form or variety of insanity; and here, at the outset of the inquiry, we are met with the difficulty that "alcoholic insanity" may mean one of several things that are quite distinct. We can distinguish three several clinical pictures comprised or comprisable without this single term. First, there are those cases in which ordinary drunkenness, that is to say, the effect of a single debauch, exhibits itself, not as maudlin, or quarrelsome, or hilarious, or stupid conduct, with thickness of speech, and defect of gait, and so forth, but as furious mania or other well-characterised insanity. These are the cases to which the term *mania a potu* should, I think, be restricted; and these are the cases which enable some institutions to show such remarkably high recovery rates. The second group consists of delirium tremens, the result of repeated gross debauch. The clinical picture is remarkably uniform and distinct; and, although the duration is a little more prolonged than in the group previously described, the cases do not so often find their way into lunatic asylums. The third group comprises cases of alcoholic insanity ordinarily so termed, the result of years of excessive indulgence in alcohol. In these cases also the clinical picture is specific; the mnemonic defect, the insane suspicions, the moral deterioration, and the physical symptoms usually rendering the malady unmistakable, apart from knowledge of its causation. Each of the three groups of cases of insanity due to drink constitutes such a specific clinical picture of disease as fairly entitles it to separate tabulation as a distinct variety of insanity, even apart from its manifest causation; and, although cases of each group can be ranked and filed in due and proper positions in the table that I have proposed, yet, when so allocated, they are mingled with other cases which they generally resemble, are lost in the crowd, and are not afforded that separate and distinctive position to which they seem to be entitled, as well by their peculiar combination

of symptoms as by their assignable causation. The most obvious means of erecting them into such a distinctive position would be by inserting a new column, headed Alcoholic Insanity, and dividing it into three, distinguished respectively as *mania a potu*, delirium tremens, and alcoholic insanity proper; but there is a manifest objection to such a course. It would introduce into the table of Forms of Insanity an ingredient of causation which would render it logically difficult to exclude other ingredients of the same class, and so would open the door to the very confusion and cross-classification which characterises the table now in use, and which it is so important to avoid. No course that I can devise is wholly free from objection, but, upon the whole, I think the wisest plan would be to introduce a new table, devoted to alcoholic insanity alone, distinguishing the three varieties that I have described above. The great importance of the matter, and the great interest that it excites among the public at large, seem to constitute a sufficient warrant for devoting to its consideration a separate table, in which, moreover, a great deal more information might be embodied than could be inserted in such a general table as Table IV. The following scheme is suggested as a model :

Insanity ascertained to be due to Alcohol.

	Duration of attack before admission.	Ordinal number of attack.	Duration of habit.	Mode of inhibition.		Name of customary stimulant.
				Constant.	Paroxysmal.	
Acute (<i>mania a potu</i>)						
Subacute (<i>delirium tremens</i>)						
Chronic (alcoholic insanity)						

A collateral advantage of such a table would be that it would exclude all cases in which alcohol was not the main actuating cause of the malady. Of cases of insanity, said to be due to alcohol, there is, between the percentages of different observers, a very wide discrepancy, which cannot be explained by the

different habits of localities, nor by the different classes to which the statistics refer. It seems that this discrepancy must arise largely from the restriction of the figures, by one observer, to such cases only as could be included in such a table as the foregoing—cases in which the symptoms bear the characteristic stamp of causation by alcohol; while another observer may include, in his cases caused by alcohol, all cases of insanity, whatever the clinical picture they present, in which excessive indulgence in alcohol, habitual or occasional, can be discovered among the antecedents. It is important, no doubt, that, when the abuse of alcohol is discovered among the antecedents of an outbreak of insanity, it should be recorded among the facts of possible causation; but it is more important to distinguish the cases in which the insanity can certainly, from the nature of its symptoms, be mainly ascribed to alcoholic excess, from those in which the alcoholic excess acts as a contributory cause, among others, in bringing about a form of insanity which is not characteristic of causation by alcohol alone. Cases of the latter class would still be recorded, by the method that I propose, in the general causation table; and their number could be ascertained by deducting, from the total of alcoholic causation, the total recorded in the new table.

From the foregoing examination it appears that the only varieties of insanity that have any claim, from the distinctness of their symptoms and course, or from what I have termed the distinctness of the clinical picture that they present, to the title of distinct diseases, are general paralysis, acute delirious mania, some cases of insanity in pregnant women, some cases of insanity at the climacteric, insanity associated with epilepsy, fixed delusion, including paranoia, and alcoholic insanity. All other cases must be lumped together under the heading of insanity *simpliciter*.

With respect to the varieties that have sufficient distinctness to be regarded as separate disorders, the question arises, whether it is desirable and practicable so to arrange the tables as to collect separate statistics bearing upon each or any of them. To determine this question it will be necessary to consider each variety in turn.

A momentary consideration of general paralysis enables us to answer the first part of the question in the affirmative. In

the light of recent research, it is manifestly desirable to collect statistics of the number of cases of this disease in which syphilis is, and in which it is not, a discoverable antecedent. Here we are concerned no longer with Table IV, but with Table VI, and it is apparent that in this respect the Table proposed by the Statistical Committee is superior to that which I have suggested, for the former does, while the latter does not, afford the means of tabulating this information. Other particulars with respect to general paralysis, which it is desirable to tabulate, are the nature of the stress, other than syphilitic infection, which precedes the disease, the character or type that the disease displays, and its duration. These, I think, are the minimum requirements, though others, such as the occurrence and character of crises in the course of the disease, might be usefully inserted. Confining ourselves, however, to the irreducible minimum, the first and second can be met by abolishing, in the Table of Stress, the vertical division into principal and contributory causes, which is, after all, of doubtful advantage, and substituting, for the first column, a column headed General Paralysis. All the facts of causation with respect to this disease would then be separated from those relating to other cases of insanity. The third requirement—the indication of the type of the malady—is provided for in Table IV as I have drafted it; while the statistics of the duration of the malady must be specified by a modification of Death Group Table III, separating deaths from general paralysis from deaths from other causes.

Of acute delirious mania, any peculiar antecedent should be specified, but beyond this, and the duration of fatal cases, I know of no particulars that are useful to collect. The method is obvious.

I am unable to suggest any statistical facts that could be set forth in these tables with regard to insanity associated with epilepsy.

As to fixed delusion, and its variety paranoia, it is desirable to know whether the malady is primary, or secondary to acute insanity; but this is often difficult or impossible to ascertain, and if separate columns were provided for the purpose in Table IV, some nine of them would be needed, a complication out of proportion to the benefit obtained. The causation should, however, be set forth separately, and this would need

a separate column in the Causation Table. It may seem that, as fixed delusion, including paranoia, is often secondary to an attack of acute insanity, the latter may logically be regarded as the cause of the former; and that, consequently, if the causation of paranoia is to be separately set forth in the Causation Table, a new rank should be added to that table, entitled "previous acute insanity." Such an addition would, I think, imply a misconception of the object of the Causation Table. As I understand it, the object of the table is to indicate the antecedents of insanity generally, not to indicate the order in which one form of insanity succeeds another. The purposes of this table are satisfied when we have indicated the antecedents of the original attack of insanity, in this case, of the attack of acute insanity. Whatever changes may thereafter take place in the type of the insanity, must all be regarded as results of the original causes by which the patient became insane.

I regard it as certain that many cases of insanity that take place about the climacteric age, and are commonly classed as climacteric insanity, have very little connection with the menopause, and, while I agree that there is a form of insanity that is so connected, and that does present a clinical picture of some little distinctness, yet I am quite sure that in practice this clinical picture would in future be, as it now is, disregarded, and that all cases of insanity in women between forty and fifty-five will continue to be called climacteric insanity. I am of opinion that it would be less misleading, for scientific purposes, to lump cases of true climacteric insanity with the residue, rather than to collect statistics of a so-called climacteric insanity, based upon insufficient discrimination.

The same reasoning applies to the insanity of pregnancy; and applies even more cogently, for insanity associated with pregnancy is not distinguishable, save by the co-existing pregnancy, from insanity in the non-pregnant. I think, therefore, that it would serve no useful purpose to collect separate statistics of insanity occurring either about the climacteric period, or during pregnancy.

Alcoholic insanity, the only remaining variety that has a claim for separate treatment, has already been dealt with.

After the proposed alterations are made, the new headings of Table IV will be as follows:

LI.

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General paralytic.	Non-paralytic.						Associated conditions.												
	Secondary.						Mental.			Bodily.									
	Primary.	Recurrent.	Alternate.	Exacerbate.	Continuing.	Summary.	Total.	Delusion.			Mnemonie defect.	Epilepsy.	Fever.	Myxædema.	Phthisis.				
								Hallucination.	Temporary or fluctuating.	Persecutory.						Fixed.			
Exalted.	Personal.																		

EXPLANATIONS.

Primary means that the case is admitted for the first attack of insanity.

Recurrent means an attack after recovery from one or more previous attacks.

Alternate means a stage in circular insanity.

Exacerbate means a chronic case subject to acute exacerbations.

Continuing means a chronic case which does not fluctuate decidedly in severity.

Temporary or fluctuating delusion is used in contradistinction to fixed delusion.

Fixed exalted delusion does not include the exalted delusion of general paralysis, even if continuing moderately uniform.

Personal delusion means delusion of alteration of part of the personality.

Mnemonie defect is not to be entered unless it is pronounced.

Epilepsy means idiopathic epilepsy, and excludes, *inter alia*, the fits of general paralysis.

Fever means fever which cannot be attributed to intercurrent disease.

Bodily associated conditions mean bodily diseases believed to be organically connected with the insanity, and not accidental accompaniments. For instance, it includes phthisis associated with the phthisical insanity of Clouston, but excludes phthisis not so associated.

It will be observed that I have not dealt with, as separate varieties of insanity, those cases which are associated with bodily disease. For this there are sufficient reasons. In the first place, if, and in as far as, they really are distinct varieties of insanity, in the sense distinguished in this paper, they are

sufficiently provided for in the last columns of the Table IV that I submit. While it must be admitted that the insanity of myxœdema, and it may be admitted that the phthisical insanity of Clouston, present clinical pictures sufficiently distinct to entitle them to separate consideration as specific diseases, yet for the great majority of cases of insanity, to which the name of some bodily disease is adjectivally connected, there is no such justification for a specific title. If there is a gouty insanity, apart from insanity which is associated, causally or otherwise, with gout, then assuredly there is a plumbic gout, apart from the gout which is associated, causally or otherwise, with lead poisoning. If there is an anæmic insanity, recognisably different from other insanity, then there is a traumatic anæmia, recognisably different from, say, the anæmia of lactation. There appears to be a confusion in the minds—there certainly is in the nomenclature—of alienists, by reason of which they convey the notion that, if the cause of insanity can be recognised or surmised in any given case, that cause impresses upon the insanity itself a recognisable peculiarity, which may be nominally fixed and indicated by attaching the name of the cause, or surmised cause, adjectivally to insanity. This is not the practice in other departments of medicine. A surgeon speaks, it is true, of syphilitic iritis and rheumatic iritis, but he does so, not merely to indicate the cause of the inflammation of the iris, but because the cause so impresses itself upon the character of the inflammation as to afford a clinical picture of disease distinct from that produced by any other cause. In cases in which no such clinical picture is impressed by the cause, the practice is not followed in any department of medicine except alienism. No physician, I believe, speaks of spinal lardaceous disease and empyematous lardaceous disease; or of emotional diabetes and traumatic diabetes; or of sexual syphilis, and gynæcological syphilis. No surgeon, as far as I know, divides fractures into machinery fractures, fall fractures, and run-over-by-a-cart fractures; or wounds into intentional wounds, unintentional wounds, and wounds from putting the hand through the window glass. It is true that he divides wounds inflicted in battle into bayonet wounds, bullet wounds and shell wounds, in each case employing an adjectival word connoting the cause; but he does so, not to classify the wounds by their causes, but because the cause dominates the character of the wound, and

impresses upon the case a distinct, specific, clinical picture. It is not the cause that is uppermost in his mind, and that he wants to convey to his hearer, but the character of the wound inflicted. And this last element, the character of the malady, the clinical picture of the disease, is the only proper and valid reason for giving to a case of disease a distinctive title.

It is true that the public will have a name for every case. It is true that our professional brethren, outside our own specialty, consider a diagnosis very incomplete unless a title is given to the patient's malady; and by all means let them be satisfied. If a patient has a delusion, tell his friends that it is a case of delusional insanity. If he is a good deal excited, say that it is a case of acute maniacal delusional insanity. If he is suicidal and destructive, you can add these words as well, and the more elaborate your title, the better pleased will they be, and the more highly will they think of you. It is true that you are merely telling them what they already know, but this renders them the better able to appreciate the accuracy of your diagnosis. Truth is adhered to, and no harm is done. But say that a woman has "puerperal" insanity, and, however carefully we may safeguard ourselves against misconception, we cannot avoid conveying to the friends, and to the practitioner in charge, that the insanity from which the patient suffers is different from "ordinary" insanity. I do not say that any harm is done, either to the friends or to the general practitioner, but I am very sure that we shall not ourselves attain to any true concept of insanity until we have cleared our minds of these foggy confusions. Deep down in human nature is implanted the craving for names. The very first act of the very first man was to give a name to every beast of the field and every fowl of the air. As far as we are advised, he waited neither to eat nor to drink, neither to find shelter for his body nor shade for his head, before he started to give a name to every living creature. If I were to say that even marriage was postponed to this more urgent desire, I should not violate the literal interpretation of the text; but in this matter our first parent had little option, for his spouse did not come into the world until it was prepared for her by the attachment of names to the objects in which she was most likely to be interested. The deep-rooted craving for the attachment of names to objects, thus so strikingly exhibited by our earliest progenitor, has been inherited in undiminished in-

tensity by all his descendants ; and this appears to be a crushing refutation of the doctrine of Professor Weismann, that no qualities are inherited save those which are in-born. For it is indisputable that Adam was not born, and therefore could have had no in-born qualities. However that may be, it appears, from the account of his proceedings, that when he had attached a name to every object presented to him, he took no further interest in them. There can be no doubt, judging from the attitude of his descendants in similar case, that the attachment of a name to a thing gave him all the information about that thing that he considered desirable, and that thenceforth his interest in the thing was at an end. We see precisely the same attitude in every child that finds an unfamiliar flower, or beetle, or stone, by the roadside. He runs with it to his father, and asks what it *is*. The father, if he is able, tells his son the *name* of the thing, and both are satisfied. The object is now flung away. It is of no further interest. Is our own mode of dealing with forms of insanity much better? Are we not a little too anxious to give names to things, whether they deserve separate titles or no? And are we not apt to rest content when a name has been given, and to think that then all is known that need be known? Five-and-twenty years ago I protested against the exaggerated importance that seemed to me to be attached to the nerve-cell, and the neglect to study and appreciate the nerve-fibre; and I besought neurologists to repudiate their *cytolatry*. Must I now protest against an *onomolatry*? It is convenient, no doubt, that things, if they be distinct things, should have names. It would be inconvenient to be obliged to refer to the Chairman of the Statistical Committee as "the benevolent-looking gentleman with the beard of a patriarch and the tongue of a Chrysostom," but it would be attaching exaggerated importance to a name if I were to suppose that, by merely naming Dr. Yellowlees to a person to whom he was a stranger, I could convey a notion of the wisdom and eloquence of the nominee, or of his skill in piloting through this Association statistical tables that are indefensible. If Adam, when it came to the turn of the sea-serpent to receive a name, had given a different title to each coil that appeared above water, would he not have set a precise example to those alienists who designate puerperal insanity and dementia præcox as distinct diseases?

Science and a Future Life. By WILLIAM GRAHAM, M.D.,
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NORMAL humanity has never taken kindly to the idea of annihilation. As far back as anthropology has pushed its researches traces of a belief in a survival after death have been found. We have but to open the tombs of the men of the neolithic period to discover idols, mystic symbols, traces of food and clothes, with which our far-off progenitors sought to express their belief that the dead still lived and were open to the ministries of pious affection. The truth is, the thought of annihilation is too abstract to be intelligible to the primitive mind. Wordsworth's "little maid" could not conceive death except in terms of life, and her inability is a universal mark of undeveloped thought. Savage man has no knowledge of death as a fact or process of nature, only as the product of some hidden and malevolent energy which, though it may destroy, cannot annihilate. The dead are not really dead. They haunt the spot which on earth they loved, mingle with the dreams, and affect for good or evil the fortunes of the living. Out of this instinctive impulse, through the growth of mental faculties and the reaction of environment, have been gradually evolved the lofty hopes of religion and philosophy.

Nor is the idea of annihilation less obnoxious to civilised and cultivated man. Philosophies, materialistic and pantheistic, have done their best to rid him of that notion of immortality. Huxley, while forced to believe in the everlasting duration of matter and force, cannot discern a shred of evidence for a life beyond the grave; Frederic Harrison, unable to detect any permanent spiritual root or centre in man's being, hands him over to oblivion, while transferring to the race the destiny denied to the individual; Haeckel, believing thought to be a function of matter, and personality to be a momentary cohesion of sensations, perceptions, and ideas, sees in death the end of all so far as the individual is concerned. These are typical of the forces inimical to the belief. Yet it still holds its own. Beset with difficulties unknown to a Plato or a Paul, embarrassed with problems, physiological, biological, ethical, and astronomical, which awaken the gravest reflection, the great thought, so far from dying, was never more insistent than to-day,

and seeks fresh proofs for its validity in the unexplored remainders of the psychologic realm, the X rays of the spirit world. Man, amid all the stress and strain of living, the illusions of hope, the miseries of despair, the irony and mockery of circumstance, cannot brook the thought of death as the grand catastrophe of his existence. Not without insight does St. Augustine say in his *City of God* that even the damned amid the horrors of their inferno deem life a good, and prefer existence to non-existence; and, to cite a very different witness, the late Professor Huxley made a pathetic admission in a letter to Mr. John Morley: "It is a curious thing that I find my dislike to the thought of extinction increasing as I get older and nearer the goal. It flashes across me at times with a sort of horror that in 1900 I shall probably know no more of what is going on than I did in 1800. I had sooner be in hell a good deal—at any rate, in one of the upper circles, where the climate and country are not too trying. I wonder if you are plagued in this way?"

And yet it has been questioned whether the desire for immortality is as keen and widespread as apologists and philosophers suppose. Are men in the mass intensely conscious of their inevitable end, and do they look forward with wistful longing to an immortal future? Or rather, must we not say that the great majority are like the old man whom Plato represents in the *Republic* as saying that as a youth he scorned the legends and myths about Hades, but now that he had grown old he was tormented with the fear that there might be something in them after all? The truth is, the average man shrinks from thinking about the other world. This world is good enough for him. He has health, wealth, troops of friends, and the thought of heaven, even arrayed in all the effulgent splendour of the dreams of Patmos, appears to him cold and uninviting. The natural, self-satisfied, complacent existence must be broken up ere the soul's deeper needs are revealed. Hence immortality becomes really credible and a thing to be desired when, under the influence of some high impulse, intellectual or emotional, we rise above ourselves and strain after an ideal good. The desire of immortal life is thus not the *conscious* possession of *all* men nor even of some men at all times, yet it lies implicit in the human soul ready to assert its power when the necessary conditions arise. The natural shrinking

from annihilation can be transformed into a yearning after immortality only through the passion of some great faith which, as it were, by sheer might robs death of its power, and deems itself heir to ineffable hopes. Hume, indeed, has shown in his posthumous *Essay on Immortality* that the existence of a wish for a future life is no proof of the reality of the thing wished for. Yet there is a truth lying at the root of this common belief. And it is this, that man's nature, when analysed, discloses the presence of a purpose some dim outline of which we are permitted to see, and that to the fulfilment of this purpose a future existence is essential. We are shut up to the dilemma: either our ideals are rooted in reality, in a scheme of things over which death has no power, or the order of cosmic justice stands condemned and morally bankrupt. As Goethe says: "Man has a right to believe in the existence and immortality of the soul, and such a belief is agreeable to his nature, whereas the contrary is not." And yet it would be a mistake to suppose that belief in life beyond the grave carried with it belief in the survival and continuity of personality to the thoughts of early men. The Greeks of Homer's time knew an existence after death, but it was a kind of vague, phantasmal copy of life on earth, without joy, activity, or hope. Hades is a land of squeaking, gibbering phantoms leading a life which is the negative of life in any real sense. Later, indeed, Greek thought developed the idea of retribution and recompense. Great criminals met a dreadful doom, heroic and virtuous souls were supremely blessed, but the great mass of men were fated to lead a thin, colourless existence, in a land of barrenness, darkness, and utter desolation. No wonder the Greek mind instinctively turned away from the contemplation of such a destiny to this bright living world, with its pains and pleasures, its joys and sorrows, and found here, for the most part, the satisfaction of its desires. The Assyrio-Babylonish belief is of the same order. When the individual dies his *ekimmu*, or shade, is separated from his body, and goes down to *Aralu*, a subterranean abode whose inhabitants feed on dust and mud. As to any survival of the person himself in the other world, the cuneiform inscriptions are silent.

At the root of these and similar beliefs lay an undeveloped sense of human personality. Doubtless even in the earliest peoples animism argued an inchoate consciousness of their own

personality ; still, it is clear that in imputing life or spirit to all things, animate and inanimate alike, the essential stage has not been reached which views persons and things as incommensurable quantities. As has been recently remarked : " As the idea of human personality becomes clearer in the minds of men, the number of those who are thought to preserve their personal identity complete in the after-life increases, and Hades is no longer the type of the world to come. The world beyond the grave ceases to be less and tends to be more than earth. Mankind has begun to see that the development of human personality here calls for its continuance and perfection there. From the idea of a general persistence of all life, often very characterless and insipid, represented at one time by animism and at another by transmigration and similar beliefs, the race advanced to the conception of personality as the greatest thing on earth, and the most worthy of perpetuation." Human personality has been a thing of slow and tedious growth, and its recognition of its own nature has been also gradual, and subject to great fluctuations. From the first dawning of life the evolutionist sees the universe at work, travailing in pain for the birth of personality. Nature has indeed hidden the evidence of man's origin ; the geologic record is incomplete ; yet we can see that the great purpose of the lower evolution of animal life was to prepare the way for man. The data for tracing clearly the steps in the process that issued in the sense of personality are not available ; man once arrived, the crown and culmination of Nature's work, the stages in his development could be forgotten. Nevertheless, there are certain moments in the upward progress of man which must have been of decisive and far-reaching significance. One of these moments was when the evolutionary process took a sudden and unexpected turn in ceasing to operate zoologically, and in setting up a series of psychological changes that issued in thought, ethical sentiment, and religious feeling. Henceforth the emphasis falls, not on the body, but on the psychic forces which are conditioned by the body. The whole of the evolutionary process which, apart from man's appearance, presents such a depressing and melancholy spectacle, is lifted to a new and higher plane, and is vested with ethical meaning as the necessary prelude to the apparition of a human soul. Another moment was when man began to suspect that the world

was his friend, not his foe. Savage man was the child of fear. Nature and Nature's forces stand over against him to be propitiated or cajoled, a malignant power on which he must ever keep vigilant guard. With the beginnings of civilisation man began to find in the world more and more the means to an enrichment of his personal life. It was a still more significant moment in the course of human history when the scheme of his existence ceased to centre in the reproductive function. For uncounted ages man was viewed simply as the organ or instrument by which life could be transmitted to a new generation; this achieved, his *raison d'être* was at an end. The interests of the individual were subordinated to those of the race. As long as this way of thinking prevailed, personality in any real sense was impossible. As yet man was not an end in himself; he was only a means to an end. And even long after this stage had been outgrown, so far as the male was concerned, woman had ages to wait ere the character of a rational responsible being was conceded her. Aristotle could regard her as the fruit of Nature's first bungling endeavours to make man!

Only with the recognition of her moral and intellectual rights was a serious hindrance to the development of man's own personality taken out of the way, and the idea of humanity received a fuller and richer content. In the advent of Christianity a new era was opened in the growth and recognition of personality.

The Christian doctrine of the Incarnation may or may not be credible, but it is the barest historical fact that the belief in it and interpretation of it revealed human nature in a new and alluring light. The personality of the Founder of the Christian faith was itself the most potent quickener of personality in other men. What He had been, every being that wore a human face, male and female, Scythian, bond, or free, was declared capable of becoming. A new sense of human worth took gradual possession of the world. As Aubrey De Vere expresses it :

“ My kind, now vested with the eternal glory,
Glorious to me became.”

Nor was Christianity without precursor. Socrates, the great hero of antiquity, heralded, under whatever limitations, the

advent of the fuller truth. "The Grecian state," says Emerson, "is the era of bodily nature, the perfection of the senses—of the spiritual nature unfolded in strict unity with the body."⁽¹⁾ The Socratic mission put an end to this unspiritual mode of thought. Socrates devoted himself to the task of vindicating for man his function as a thinker, as one who could organise out of the plastic raw material of sensibility a rational and ethical character, a free personality. It is unnecessary to trace further the growth of that which in Goethe's phrase is the "höchstes Glück der Erdenkinder." Let us turn to the question of its survival after death. Some may think that the question is already settled in conceding that personality is the product of the natural process. Belonging to Nature, it shares in Nature's destiny. But the question cannot be so summarily disposed of; for in man a new element appears which, as Huxley said in his famous Romanes lecture, "checks the cosmic process at every step," and "involves a course of conduct which, in all respects, is opposed to that which leads to success in the cosmic struggle for existence." The true nature of a cause is given only in its effect. We must, then, interpret Nature in terms of man, not man in terms of Nature.

As Fiske remarks: "That which the pre-Copernican astronomy naively thought to do by placing the home of man in the centre of the physical universe, the Darwinian biology profoundly accomplishes by exhibiting man as the terminal fact in that stupendous process of evolution whereby things have come to be what they are. In the deepest sense it is as true as ever it was held to be that the world was made for man, and that the bringing forth in him of those qualities which we call highest and holiest is the final cause of creation."⁽²⁾ With man a new chapter in the history of the universe is opened. Up to this point non-moral brute strength ruled; in the passage from the pre-human to the human stage of being man is no longer the slave of sensation and impulse: he becomes their lord, measures their worth, and makes them contributory to a fuller and deeper realisation of his rational self.

Henceforth the world knows a new order of being, with new claims in life, and therefore with a destiny not necessarily implicated in that of the lower orders on which it rests. The rise of personality is not explained by simply regarding its antecedent conditions, the crude material of instinct, impulse,

selfish, and social feelings. We must ask, How did it come to pass that these elements combined to produce such a being as ethical man appears to be? To that query two answers are possible: *either* that of the agnostic, who, unable to find a solution in unadulterated materialism, regards the problem as an insoluble riddle; *or* that of the theologian and idealistic philosopher, who views the differentiating element in personality, in the last resort, as coming from the eternal ground and source of things which religion calls God.

With the growth of personality has grown *pari passu*, or almost so, belief in its survival after death. In the earlier stages of thought it was great personalities that escaped the doom of common humanity. The warrior who with his club and bow wrought deeds of renown, the "shaman" or primitive priest whose occult powers enabled him to conquer evil spirits, the prophet in whose visions and ecstasies men saw proof of direct contact with the Divinity, the poet in whose songs the past lived over again, and an ideal world stood revealed—all these went to the after-world in full possession of their powers and faculties, and repeated there the wonders they had achieved on earth. Among certain barbarous peoples women were exalted to the priestly office, became the mouthpiece of the gods, and were alone deemed immortal. It is easy to see how the honour which at first was granted only to the few gradually became the inalienable right of the many, as the sense of the value of human personality developed.

Perhaps the most powerful factor in consolidating man's belief in a future world was the experience of dreams. Primitive man does not distinguish sharply between objective realities and subjective mental creations. The power to call up spectres and phantoms, which is especially strong in uncivilised races, is cultivated, as among the Zulus, in order that the percipient may become a fit medium for the communications of the god of the tribe. And yet we must not disparage or discredit the spiritual worth of a belief because of its crude beginnings or of the inadequate reasons men have alleged in its behalf in different ages.

The final and determining question is not *how* a belief has arisen, but *what* is its essence, its spiritual implications, and its affinities with our highest thoughts of life and the world? We can see how the doctrine, starting from the notion of a

bare existence beyond the grave, gathers richness and content as it develops, undergoes a process of moralisation, and at length issues, as the tombs beside the Nile testify, in the solemn splendours of judgment and retribution. The essential value of a doctrine or a belief, as of an organism, is found, not in its primordial germ, but in its full-grown and perfected form. To quote again the words of Fiske: "When he [the primeval savage] sees in a dream his deceased comrade, and mistakes the vision for a reality, his error is not concerned with the most fundamental part of the matter. The all-important fact is that this dreaming savage has somehow acquired a mental attitude towards death which is totally different from that of all other animals, and is therefore peculiarly human. Throughout the half-dozen invertebrate branches or sub-kingdoms where intelligence is manifested only in its lower forms of reflex action and instinct we find no evidence that any creature has come to know of death."

It is by a curious inversion of the evolutionary principle that Mr. F. W. H. Myers, in a work of over 1200 closely-printed pages,⁽³⁾ appeals to like phenomena as ground on which modern man may rest his hopes of an immortal life. It is in hysterical ravings, ghostly voices, motor-automatism, spirit-control, and the phenomena of trances and dreams, that we are to find convincing evidence for the soul's future existence. Table-turning, telepathy, "auto-suggestion," "collective suggestion," are thought to reveal hidden psychic forces strong enough to pierce the veil of the unseen, and to reveal a secret hidden from the eye of the speculative reason. Does not this look like a reversion to ancestral and undeveloped modes of apprehension? "Out of the long Stone Age," says Mr. Myers, "our race is awakening into consciousness of itself. We stand in the dawn of history."⁽⁴⁾ Exactly, and therefore we are still on speaking terms with our semi-human and barbaric ancestry. The evidence that appealed to them appeals to us, more or less, because they live in us, and in spite of ourselves still make their voices heard. Mr. Andrew Lang has shown that many of the most astonishing discoveries of psychical research are paralleled in the beliefs and customs of savage races.⁽⁵⁾ Is evidence or proof that suited the untutored childhood of the race fit to convince cultivated and rational man? Interesting and valuable as throwing light on out-of-the-way psycho-

logical corners, and puzzling perversions of the human mind, Mr. Myers' laborious effort does not advance us a single inch beyond the argument of philosophical reflexion on the way to an assurance of immortal life.

The fundamental and unifying principle of the complicated details in Mr. Myers' work is his doctrine of the subliminal self. This doctrine lays it down that there is a self not derived from nor to be confounded with the ordinary normal self. Nay, rather, we are asked to believe that our ordinary self is derived from a primary self having its own separate experiences and its own states as the results of those experiences. Our ordinary "self" is only, he says, "a fragment of a larger self, revealed in a fashion at once shifting and limited through an organism not so framed as to afford it full manifestation." When death comes to us, this profounder "self," which for the most part here on earth is potential and circumscribed in its operations, is set free and enters on its proper heritage. In brief, there are, so to say, two "selves," one "supraliminal" formed by our ordinary earthly experience, the other "subliminal"—that is, a deeper self formed by an environment that is not of this earth. Yet the ordinary "self" is only a part really of the whole or larger "self"—a part especially fitted to meet the reactions of the ordinary earthly environment. Now, it is Mr. Myers' contention that it is this doctrine which removes the great barrier to his interpretation of psychical phenomena, for it provides the link, he maintains, between those phenomena and the ordinary course of nature as science knows it. This constitutes his "scientific proof." The phenomena of dreams, hysteria, hypnotism, and even the ideas of genius, are all evidences, tokens, of the presence of the "subliminal self," an uprush of thoughts not consciously originated but arising out of the profounder depths of man's being. But these phenomena are admitted facts of experience, and thus we have a bridge connecting them and the other phenomena claiming recognition such as communication from discarnate spirits. And this bridge is the "subliminal self." Now, if this bridge falls the whole theory for the sake of which Mr. Myers wrote these volumes falls with it. We are as far as ever from a scientific proof of immortality.

Let it be noted: (1) Assuming the existence of this subliminal self, how can any uprush from it bring to us a knowledge of its nature? In the very moment that it emerges into

consciousness it ceases to be what it was before. And ceasing to be what it was before, we are left without any genuine knowledge of its character. (2) The utterances alike of hysteria and genius, in order to be genuine products of the unearthly self, must be inexplicable by any antecedent mental states of the neurotic or the sage. But the depositions of the subjects of hysteria have only to be examined in order to prove that they are easily explicable through the normal experiences of earth; and genius—however hard to explain—is always at least dependent on a given historical environment and can only be understood through that environment. (3) In hypnotism according to Mr. Myers we evoke the thoughts of the subliminal self into the ordinary consciousness. Now, as the hypnotiser can evoke whatever ideas he pleases, such as, for example, that the subject is drunk, or afflicted with deafness, or is the Emperor of Japan, one can only stand in amazement before a subliminal self who has had these experiences in time past, and now at the bidding of the hypnotiser brings them forth. Clearly there is something wrong about a doctrine which lands us in this curious but scarcely satisfactory hypothesis.

If, then, we can find no evidence of the subliminal self in the admitted facts of experience, it can afford no bridge connecting these with the phenomena of spiritualism. The alleged fact of communication with the dead stands out of relation to our normal experience, and as long as it does so, it may mystify—it cannot enlighten us. The fatal objection, from a scientific point of view, to the marvels of spiritism is that they cannot be produced at will and that the senses are fallible.

Mr. Myers contends that cases of “possession”—that is, cases in which the body is dispossessed of its rightful tenant and occupied for the time being by a different personality—prove that discarnate spirits exist and can communicate with living persons. Were this true, the survival of the soul after death would be proved. Now it may be admitted that the *Psychical Researchers* have proved that there are more things in human nature than orthodox psychology is wont to recognise.

We have learned that the brain operates in ways which astonish us very much, as radium or the Roentgen rays would have astonished the men of the eighteenth century. Telepathy

and clairvoyance, which are ascertained scientific facts, account for the most striking of mediumistic phenomena, and have, moreover, the advantage of being merely extensions of our normal powers. Seeing, hearing, and smelling are essentially telepathic. If the revelations of spiritism are to form part of our organised knowledge, they must be seen to be related to our ordinary experience, otherwise they may be enigmatic signs, perplexing, but scarcely illuminating.

But granting the value which Mr. Myers assigns to his facts, of what avail is it? At most the argument would give us only a survival after death. What guarantee is there in the myriad phantasma of the dead that in the mysterious world from which they came there may be other and still greater shocks before which personality will go down and disappear? The whole theory assumes a point of view too low for the real significance of man. The claim which alone is consonant with his nature is concerned not with a temporal but an immortal future.

Turn the matter as we may in our mind, we are the more convinced that this way of approaching the problems of existence is a flagrant case of putting the cart before the horse. If life is devoid of spiritual meaning, if the voices of the universe bring no Divine message and stir no echo in the soul, what help is afforded us by ghostly visitants from "the wide, grey, lampless, deep, unpeopled world"? Granted that there is a kind of back door leading into the Beyond, and the spectral shades pass to and fro, we have still the riddles of the Sphinx to face, the eternal problems of religion and philosophy to think out as best we can, alike unhelped and unhindered by these phantoms of the night. So far as all the really important questions are concerned they are dumb, or if they speak it is to utter "the kind of trash for which there is no adequate language in the court of contempt to describe its character."

The quest of a scientific demonstration of a future life is the last infirmity of the religious mind. Such a proof from the nature of the case is not forthcoming. Science holds not "the keys of death and Hades." Whether we believe in immortality depends, *not* on our scientific knowledge, which is concerned with only one aspect of the universe, but on our total view of the universe itself. Is the universe at bottom spiritual? Then our belief has a foothold on reality. Is it material, ever changing,

without any inner principle of continuity? Our belief must perish. Now, our age is peculiarly fitted to respond to the religious teacher when he unveils to us the world beyond. For one thing the old crude materialism is dead. No longer can we assert that the brain secretes thought as the liver secretes bile. We cannot say that the brain *produces* thought. All that can in strict science be said is that the brain and consciousness vary concomitantly; but what the nature of their connection is remains, and is likely to remain, an absolutely inscrutable mystery. All that science knows is that when the brain acts in one way, consciousness acts in another. If a theory of connection be insisted on, we may as well accept Professor James' notion that the brain *transmits* the life of the soul in a limited and imperfect fashion as to hold that it actually *produces* it. Both are speculations; both are alike valuable, or alike worthless. We simply do not know. Hence Science replies neither "yes" nor "no" to the question: Is there a future life? She is silent, leaving the way open for inquiry in other regions of experience with which she is not competent to deal. The belief is too great and vital to have its fortunes bound up with a fragment of our nature; it makes its appeal to the totality of our faculties. Some will perhaps think that in thus giving up the possibility of scientific proof, we virtually yield the whole question, for we never can be certain of immortality. But we must distinguish, as the late Cardinal Newman pointed out, between certitude and certainty. Certitude is a habit of mind, certainty a quality of propositions. Applied to our subject, we may say that we may have certitude but not certainty of immortal life. From a variety of causes, partly emotional, partly intellectual, we may believe in immortality, even though we fail of a resistless scientific or logical demonstration. This is implied in the saying of Emerson that "all serious souls have a better belief in immortality than they can give grounds for." The belief is an instinct interwoven with the deepest fibres of our nature. Doubt, or disbelief, will have always its more or less plausible objection; life will always give its victorious answer. Man's nature when studied makes immortality a credible and rational faith. He who asks for greater proof than this is really falling back from a spiritual upon a mechanical and external conception of man's relation to the spiritual world.

Belief in immortality is the correlate of belief in personality. As the late Master of Balliol has remarked: "The more we think of reason as the highest thing in the world, and of man as a rational being, the more disposed we shall be to think of human beings as immortal."⁽¹⁾ To believe in a future life is to perform an act of faith in the worth of personality. We are conscious that face to face with our personal selves we are in contact with something greater than a myriad worlds of dead matter. If death can dissolve the rational conscious self, there is nothing beyond its annihilating grasp, and we may well proclaim it master of the universe. And when we probe human personality, we find that its characteristic function is self-realisation. There are "abysmal depths," undeveloped capacities, potentialities of energy, intelligence, and love which we must not conceive fruitless of their due lest we should be put to permanent intellectual confusion.

The animal lives for the day; its instinct is satisfied with the finite and the evanescent. Man, as the possessor of reason and will, knows himself immortal, and refuses to believe that the universe has betrayed him. There is a very real sense in which we may say man is not, he is yet to be. The most developed personality falls far short of that ideal which yet slumbers in us all.

"Death's true name
Is Onward—no discordance in the roll
And march of that eternal harmony
Whereto the world beats time."

(1) Essay on "History."—(2) *Idea of God*, p. 21.—(3) *Human Personality and its Survival of Bodily Death*.—(4) Vol. ii, p. 306.—(5) Compare *Myth, Ritual, and Religion*.—(6) *Life of Benjamin Jowett*, vol. ii, p. 244.

DISCUSSION

At the meeting of the Irish Division, held at Armagh, July 5th, 1904.

Dr. DAWSON wished that he could agree with Dr. Graham that crude materialism was dead, but it was impossible to think so in view of the recent re-affirmation of the theories of Kronthal, according to which there is no such thing as personality, or even as a central nervous system; the nervous system consists of fibres running straight through from receptive apparatus to muscle; and the function of the nerve-cell (which is a mere fortuitous conglomeration of leucocytes) is simply to enable a stimulus to spread from one fibre to several. All the psychical functions would therefore be reflexes and nothing else. However, the grounds on which this theory was founded were quite inadequate, and in his opinion it constituted a *reductio ad absurdum* of materialism.

Dr. CONOLLY NORMAN said he believed the bringing forward of this paper was a proof of the trend of the times. Dr. Graham had taken up a certain stand in relation to developmental theories, and had arrived at a conclusion towards which

other students tend on other grounds. He himself would be the last to speak slightly of Darwin and his school, but the general tendency of modern thought was to make us feel that the Darwinian doctrines have not that value with which they are credited by Darwin and his followers. We had come to see that the theories of development following the old lines do not explain anything. The old theories of a Providence arranging everything to an immediate end which was patently visible, theories which were rejected by careful thinkers as long ago as Voltaire (who ridiculed them by saying that on these theories the nose was an organ made to support spectacles), had been cleared away by Darwin's deeper consideration of these matters; yet the trend of modern thought is towards feeling that the doctrine of development does not at all account for everything. If the human race is the last thing in development in this world, if the human intelligence or ethical feelings are the crown of human life, we are brought by the very reception of this belief to the conviction that the highest intellect and highest ethical feelings of man must have a meaning; and if the human ethical feeling says there is a meaning in the universe that must be true, otherwise development has developed to nothing, intellect means nothing, moral feelings mean nothing, there is no purpose in anything, and our views of development are a dream. Again, that there is a purpose beyond the powers of natural or sexual selection to bring about, that there is a something beyond the mere organised selfishness which the struggle for existence really means, is evident to us when we look even to the lower forms of life. It is obvious that in many of the activities of the lower animals there is a purpose quite beyond the mere struggle for existence; the economy of the hive shows us a number of animals working for a common end which is utterly inconceivable on the ground of a struggle for existence, natural selection, or sexual selection. The worker bee, who is a non-fertile female, struggles, not for herself, nor for her offspring, which she cannot have, but for an ethical end, for the good of the race. Again, in the human race we are brought into collision with two great forces which are contradictory to each other, namely, intellect and the moral feelings. The keenest intellect does not tend to benefit the whole race, therefore the moral feelings have sprung up. The basis of all moral feelings is self-sacrifice, which is not brought about by the struggle for existence, not fostered by sexual selection. The ethics which form the basis of human society are not dependent on natural selection, sexual selection, or environment, therefore there is something beyond. There is a tendency in things, there is a tendency in our own mind, in our own acts, which is the real guide and real basis of our acts. Dr. Graham quoted Hume as saying that the mere fact that a person believes a thing is no proof that it is true, but the bearing of this was not clear to his (the speaker's) mind. If the whole human race has certain feelings, instincts, and aspirations, they have come there with a purpose, with a history and with a future, as certainly as has the nose on our face.

Dr. GRAHAM replied shortly.

Mental Unsoundness and Mental Disease in a Local Prison. By WILLIAM COTTON, M.A., M.D., D.P.H.,
Medical Officer, H.M. Prison, Bristol.

EXCLUDING debtors (who are non-criminal prisoners), a *local* prison is one containing persons charged with an offence awaiting trial, or convicted and serving a sentence of imprisonment of less than two years. A *convict* prison contains convicted prisoners sentenced to three or more years' penal servitude. All prisoners sentenced to penal servitude have

been while awaiting trial, or are for a short time after sentence, detained in a local prison, and thus come within the cognisance of the medical officer there.

In the recognition of unsoundness of mind among the criminal inmates of a local prison like Bristol, there are some difficulties at the outset :

1. Apart from an individual's criminal record (if any), there is, as a rule, no available information from third parties (such as relatives, or neighbours, or medical attendants) as to their mental antecedents or previous family and social history. Even when the behaviour of a person charged with an offence is such as to attract attention in a court of first instance, so that he or she is remanded for a report from the prison medical officer, or when insanely written documents are found about him, or when one would expect that a previous term in an asylum or certified inebriate reformatory must be known to the committing authority, in all cases the prison medical officer has to shift for himself, without reliable information, as best he may.

2. Another serious difficulty arises from the habitual untruthfulness of most prisoners, who, as a rule, will answer "yes" or "no" to questions, unless they fancy "no" or "yes" would be more advantageous.

3. Then, again, the majority of prisoners are, on reception at a local prison, presumably bemused with recent or habitual drinking, or both, so that initially the clinical picture may be quite disguised and liable to misinterpretation.

On the other hand, we have in prison practically continuous observation by day and night (and if necessary in hospital) of all doubtful cases under physiological conditions of regularity, rest, exercise, warmth, food, and freedom from alcohol, and though it takes at least seven days to get the drink well out of a man, at the end of that time, in the case of an individual whose immediate and remote mental antecedents are unknown, and perhaps unknowable, one may give a fairly confident opinion upon the substantial or residual insanity then present. And conversely in the case of any person charged with an offence, it is a safe practical rule never to report on such an unknown prisoner's mental condition until he or she has been at least one week under observation—that is, under at least one week's complete freedom from alcoholic dosage.

As regards their mental condition, the prisoners at Bristol

(and probably at other similar prisons) may be roughly distributed into four fairly natural groups :

I. The first group consists of sane and (at least on duty) temperate prisoners whose mental condition (and general physique and health) is much above the average of the outside world. Most of these are the real professional criminals, enemies avowed (in prison) of society, who have calculated the chances and taken the risks of the game. For example, there are master burglars, master swindlers, organisers of swindles, forgers, the whole tribe of sharpers, confidence tricksters, and false pretence men, and fraudulent bankrupts and the like, acute, subtle, plausible, shameless, audacious, and often of dignified presence and ingratiating and even fascinating manners. All these gentry are pretty numerous in a local prison while waiting their trial at Quarter Sessions and Assizes, and then they are sent elsewhere to penal servitude, most of them for a good long spell. Some of the most admirable psychological studies of the greater Victorian novelists are descriptive of individuals of this group, not to speak of later and more sensational writers, and the daily newspapers.

It is among the false-pretence men—who like to keep their hands in, I suppose—that the prison medical officer meets the most painstaking, industrious, and (it may be added) successful malingerer. Some of them simulate insanity itself most skilfully, and others more coarsely and crudely, while both serve a useful purpose as excellent foils and control experiments for the real thing. Then, again, it is here that the feigned attempts at suicide—the “dinner-hour suicide”—are made. The *modus operandi* is generally the same, and is no doubt traditional. At the hour of tin collecting, when the discipline staff are sure to be most numerous about, or after ringing his bell, a prisoner is presently found blue in the face, suspended by his handkerchief to the ventilator or a hook in the wall, or else lying on the floor with a strand of oakum twisted tightly round his neck. A successful suicide in a locked cell is a terrible thing to think of, and implies either a sane man purposely ending his misery, or a case of insanity overlooked. Yet from what I have seen of seven or eight feigned attempts it seems to me that most of them were very narrow escapes from death by voluntary misadventure. Subsequent confession in these cases leaves little doubt of their feigned nature.

In this group of sane prisoners, and other sane prisoners, who are undergoing a long term in prison—say any time between one and two years, the extreme limit—there is certainly a tendency towards the end of their sentence to become what is known among the older warders as “gaol-dotty.” A “good” prisoner (warders classify prisoners “good” or “bad” irrespective of the cause of their detention) is observed to return his food and mismanage his work. On examination he is found to be shaky and nervous, to have lost weight, to have palpitation, and to sleep badly and to have morbid fears about losing his remission marks. This condition is possibly due to the monotony of prolonged prison life, but more probably to the anticipation of facing the world again, with, it may be, the inevitable social penalties of a first crime. The tendency being known, rarely develops far, and if it does, ordinary medical treatment and a few daily visits soon put things right. It is said that the discipline in a local is more severe than in a convict prison, so that prisoners who have reason to know prefer three years’ penal servitude to two years in a local prison. That a man, however, should become certifiably insane in prison without showing signs of insanity within a short time of reception, or without a marked previous insane or intemperate history, must be very exceptional, and is outside my own experience in a local prison.

II. The second group, that of inebriate prisoners, forms of course the largest in the local prison, constituting probably 90 *per cent.* of the males and perhaps even a larger percentage of the females received into Bristol prison. It consists of men and women of all the mental grades of the reputedly sane general community who through drunkenness and its associated follies have become the subjects of a criminal charge, or in whose offence drink has been in the wider sense a contributing cause; when the drink is out of them they are like other people, and when the drink is in them they are for a time (and perhaps all the time) practically more or less insane. In the surroundings of a prison they are sober and normal, or soon become so, and probably would continue so in any non-alcoholic environment. Very many of them are alcoholic recidivists, and (if they survive the accidents of drunkenness outside long enough) in time no doubt become progressively degraded, and finally may be the subjects of terminal alcoholic

dementia (clinically, a slow progressive general paralysis of the inebriate). Though more their own enemies than society's, there is no crime, however serious, that members of this group may not commit, except such crimes perhaps as imply high technical execution and systematic planning ; as is notorious, to their account most of our crimes of violence belong. To this group might very naturally be referred (because of associated intemperance) those who on account of their deficient intelligence are hardly able to earn their own living outside independently, though able to perform good unskilled taskwork under ordinary supervision.

It is among this group while in prison that the severest typical cases of acute post-alcoholic insanity, or delirium tremens, are found. As seen in our prison, delirium tremens occurs more suddenly, is more severe, is sooner over, and ends in a more definite crisis, than in private general practice. From unknown causes we get a number of cases in one month in epidemic fashion, and then for several months none. Most of the inebriate prisoners received are pretty well sobered before arrival, and little notice is taken of what would be called delirium tremens in the outside world, or of ordinary forms of drunkenness on first reception. Cases with symptoms of delirium tremens on arrival must, of course, have been for a day or two previous in an irresponsible condition ; and so far their condition requires to be carefully noted for the information of the judge. The terrible cases we have in prison have as far as we can discern a latent period (with no obvious symptom and only an acknowledgment of recent excessive drinking, presumably suddenly cut off) of twenty-four to sixty hours ; and the patient is clothed and in his right mind by the eighth day, unless he dies. We have had two deaths nominally from delirium tremens within the last three years on the eighth day of reception ; but as both patients died in epileptiform convulsions, it is possible that a *post-mortem* examination might have given a different explanation.

III. At the other end of the scale from the first group we have a group of (generally habitual) petty offenders, who are just as obviously under the general average of physique and mental ability as the others are above it. They are rather a-social than anti-social ; from bad heredity and bad environment they have little or no chance in the struggle for social survival ; no

doubt they are sometimes the tools and scapegoats of more designing knaves. They are poorly born, poorly bred, poorly nourished, poorly clothed, mere social flotsam and jetsam, and hardly likely to do much in life except propagate their kind. Many are crippled or maimed, some are partially deaf, and some are almost blind, while some have evidences on them of old head injury. Many have impaired or exaggerated reflexes and inequality of the pupils without discernible mental disease⁽¹⁾, or are even ataxic. Outside most of them are of course occasional or chronic drunkards; charitably we may suppose a very small dose of alcohol likely to upset them. In prison, where the competitive struggle for existence is suspended, and no man may exploit his neighbour, where alcohol is for a term inhibited, and where subsistence is guaranteed to the feeble and stricken in body and mind for minimum tasks, many brush up wonderfully and might alternatively (so far as they have been intemperate) be referred to the group of inebriate criminals, the second, and in prison, as I have said, a mentally normal, group.

But within the larger group of prisoners who cannot independently make or keep their living outside from mental defectiveness, yet who do pretty well under ordinary prison supervision, there is an inner circle or sub-group of partially demented prisoners who though not certifiably insane (at least in prison), yet are fit only for a much modified prison discipline—they have to be treated as sub-normals, the “weak-minded prisoners.” They are probably, if we could trace their record, a very composite sub-group, being either cases of a chronic alcoholic dementia, or congenital imbeciles who have survived to adult life, or the subjects of confirmed and mild dementia secondary to some attack of acute insanity; a few have long been subject to epilepsy, a most dangerous class when out of control; some are simply dotards; and a few are obviously the subjects of post-hemiplegic mental impairment. Many of them are known to us from former incarceration and become “prison pets.” If these cases are not carefully noted and provided for, what happens is that some fine morning the prisoner is found in an emaciated, half moribund, dazed condition, in a disordered dirty cell, having probably lain out all night uncovered in the cold. It is these prisoners who come to look upon prison as their home, and who, if they survive the perils of freedom, help to swell unduly our prison mortality. Of nine

deaths in the last three years and a half, three have been of this class of "weak-minded prisoners."

IV. This, the smallest and, to the alienist, psychologically the most interesting, group, consists of prisoners indubitably insane and certifiable as such, who are essentially and primarily lunatics and only secondarily criminals. While the test of "weak-mindedness" is largely an industrial one, the present group is distinctly pathological, abnormal, and unpunishable.

The only part of the prison they are really fit for is the hospital; they are an anxiety to everyone and a danger to themselves, and the whole staff is glad to get rid of them without some disaster. On reception some appear to be quite sane, some are flustered as with drink, some are actually drunk, some are taken to be "weak-minded" in the special sense, and others are such as few medical men would fail to detect in five minutes' conversation as cases of madness of a definite clinical and symptomatic type. It has been my lot thus to diagnose in our prison cells one case of hypochondriacal melancholia and another of myxœdematous insanity, two or three insane querulants or litigants, several cases of classical general paralysis of the insane, different forms of senile and climacteric insanity, one case of puerperal (probably), and several cases (alas!) of lactational insanity, organic dementia not seldom, all kinds of non-alcoholic delusional insanity, the different forms of stupor, one terrible case of excited suicidal melancholia, and very rarely the more ordinary forms of morbid depression.

These unfortunate and unlucky people are charged with the whole gamut of crimes, from "wandering abroad without any visible means of support and unable (!) to give a good account of themselves" up to "murder." They are a great responsibility, for one never knows that the "wandering" delusional criminal of one year may not become the "murderer" of the next; by timely diagnosis two lives at least may be saved. Some have been repeatedly in prison before, regarded as of the inebriate or even weak-minded group, and, gradually deteriorating from the stress of life at large, untended in the streets and roads, at length become certifiably insane; *e.g.* when the industrious and well-behaved, but crazed, deaf prisoner talks of translating his delusional rights and wrongs into the definite action of going to "Buckingham Palace" with a "revolver" on his discharge, it is time to suggest certification, for the reason

that, although he may not get as far as London, he might get the length of the "revolver." It is not safe to trust to a misfire. No doubt such prisoners' previous sentences have been due to an over-looking or a confusion with others of the essential condition; just as, *per contra*, weak-minded habitual criminals, or delirious and even sane inebriate criminals, when drunk, occasionally land in an asylum.

Apart from cases accused of serious crime and committed to Quarter Sessions or Assizes (most interesting cases medico-legally, which may require special procedure on account of the formal raising forensically of the questions of criminal responsibility and ability to plead), there are three principal methods of dealing with cases of unsound mind in prison :

1. A prisoner on remand (it may be for inquiry) who shows serious mental symptoms has the fact of his insanity reported to the committing authority; he may then by the authority be discharged to the care of his friends, etc., or certified under the Lunacy Act, generally as a pauper, and sent to an asylum or the workhouse. It is no part of my duty as a prison official to certify under that Act; but occasionally I am requested as a practitioner, and sometimes feel it advisable to come forward and offer to do so. Otherwise the Report is drawn up in terms which can be utilised to form part of the usual medical certificate under the second head of "facts indicating insanity communicated by others." In some cases one simply certifies the existence of "mental deficiency," or can merely give a negative report as to the period under observation.

2. Under the Criminal Lunatics Acts a prisoner may at any time during his incarceration be brought before two of the visiting justices of a prison and two medical practitioners and certified as insane and sent to an asylum. By prison regulations the initiative rests with the prison medical officer. An inquiry of this kind inside a prison is not always very satisfactory, as in questions of insanity generally the medical witness has to pit his legal ignorance against the lawyers' medical knowledge. At any rate, in the case of a criminal in prison the rules of legal evidence tend to prevail over those of scientific testimony. Whereas under the latter everything bearing on the case has to be considered, under the former anything decisive of the matter may be ruled out, such as relatives' or prisoner's letters, previous history, a warder's night reports, and

medical opinion generally. Thus, if the prisoner is at the moment of inquiry quiet, then he is "sane"; but if noisy and excited in speech and behaviour, then he is "shamming" unless he is "drunk." The presumption of malingering, in the ordinary sense, is over them all, whereas as a matter of fact in some cases the only simulation is the artful dissimulation of delusion, to avoid certification and a further indefinite detention. An abortive inquiry of this kind is a very serious matter, as it may in the case of a prisoner awaiting trial gravely prejudice the defence (?) of insanity. Unless, therefore, there is a risk of a death in prison of such an insane prisoner by suicide or misadventure, or in the course of his malady, such a course of procedure is not always advisable. Further, the period of incarceration is frequently too brief for the necessary steps to be taken.

3. The prison regulations provide that in the case of any "weak-minded prisoner" the medical officer shall on the prisoner's discharge report to the police of the district to which the prisoner is to be discharged that he is of deficient intelligence and not fit for ordinary prison discipline (with such details as may fully describe his condition), so that if he is again brought before any court the facts may be known. The expression "not fit for ordinary prison discipline" is sometimes taken to mean unfit for "any" prison discipline, but this is a misunderstanding. This form is an exceedingly useful because an elastic one, and it may be filled up in terms utilisable for the usual medical certificate, under the Lunacy Act, where further developments towards certifiable insanity appear likely, and control of the individual is advisable. When time does not permit any other course in the case of a very insane and dangerous prisoner, a special and more urgent report is made to the police, and the prisoner is on his discharge from prison arrested as a wandering lunatic—within a couple of yards of the gate it may be—and subsequently certified as such, I suppose.

In order to give proper proportion to this simplified sketch of a somewhat complicated subject, I now give a few figures in tabular form, for last year and the year before, of Bristol criminal prisoners whose mental condition required special treatment, report, or certification. All the prisoners were adults.

Column A is for cases of acute post-alcoholic insanity; that is, delirium tremens and allied conditions (such as attempted

suicide under post-alcoholic melancholia) apart from mere drunkenness itself. Column B is for cases of low-grade insanity, partial dementia, or "weak-mindedness," as defined in this paper; and column C is for cases of high-grade insanity of definitive and recognisable type, which if not actually certified as insane and sent to an asylum while in prison, ought to be so dealt with on their discharge. The total numbers to be distributed under columns A, B, and C in the six months now ended are fifty males and six females.

H.M. Prison, Bristol.

Period.	Estimate of number of individual criminal prisoners received.	Individual cases of unsound mind requiring special treatment, report or certification.			
		A.	B.	C.	Total.
I. One year ending March 31st, 1903	Males, 1613	13	22	13	48
	Females, 688	2	7	8	17
II. One year ending March 31st, 1904	Males, 1688	14	47	14	75
	Females, 611	3	3	9	15
III. Six months ending September 30th, 1904	Males, 913	7	34	9	50
	Females, 372	0	1	5	6

(¹) *E.g.*, of 1135 male prisoners (including debtors) received consecutively, at least 4 *per cent.* had unequal pupils not obviously due to an eye disease or other peripheral lesion. It would be interesting to know the prevalence of this stigma in the general male adult population.

DISCUSSION

At the meeting of the South-Western Division at Bailbrook House, on October 28th, 1904.

Dr. WEATHERLY said that Dr. Cotton's paper pointed out clearly what he had been maintaining for many years—that many who went to prison ought never to go there, but ought rather to go straight from the court to an asylum and remain there for the rest of their lives. Dr. Cotton had shown that he got a large number of prisoners who came up over and over again for crimes they never ought to have been allowed to commit. His paper had thrown a light, a big light, upon the neglect of the duties of the magistrates or the police surgeons in many cases. One thing in the paper which interested him especially was Dr. Cotton's reference to the class of moral insanity—a very difficult class, as he admitted, whose condition it was very difficult to find out when they got them in prison.

Dr. STEWART (Bridgend) said it was very interesting to have heard as they had the attitude of the prison surgeon. Their own attitude as asylum physicians was that many prisoners, as Dr. Weatherly had said, were irresponsible. When present at assizes it had seemed to him deplorable that judges, barristers, and juries should be engaged in dealing with half-imbecile creatures who came up

time after time. He did not see any prospect of improvement except in the education of the magistrates and of the prison officials up to a certain psychological standard.

Dr. BRAYN said he did not personally consider that crime and insanity were at all synonymous, but there were a certain number of people in prisons—he spoke as having experience only of convict prisoners—who were not certifiably insane but who were weak-minded people. The term “weak-minded” was comprehensive. It included not only imbeciles or idiots, but those who would be termed “eccentric” and those who showed a deterioration of mind but who were not certifiably insane. He had always held that these persons ought to have indefinite sentences, but not in prison, and they ought not to be allowed out unless they had friends to look after them or unless they were able to earn their own living. As they knew, there was a committee sitting now as to this class of case. They had a good example at Broadmoor at present. It was that of a youth who had always been a trouble to his parents, always getting into difficulties. He talked rationally but he forged cheques and did all sorts of extraordinary things. They got him certified at last and he went to a private asylum, from which he escaped. The medical men saw him and found that he spoke rationally after his escape; however, they certified as well as they could upon his previous history. The Commissioners ordered his discharge, and the consequence was that he is now in Broadmoor. The difficulty with these cases was that medical men could not certify them. They had to certify as to facts, not as to impressions of what had happened before. Many of them were a class of case which no medical examination could make out. He quite agreed as to the difficulty of getting family history, and he supposed it was still more difficult at Broadmoor. He received cases there from the extreme north of England and it was impossible to get information. Another point as to the “criminal type” was that many such cases were not really of the criminal type; they were people who were perfectly good up to the time they had committed the crime. One thing was certain, that if they did not get their history when they came in they would never get it after they had mixed with the other prisoners. Dr. Cotton had mentioned the difficulty in the way of the prison doctor dealing with those cases which were certified before trial as criminal lunatics and the testimony of the prison medical officer as to unfitness to plead. He held very strongly that a prisoner should not be certified as insane before trial unless he was quite unmanageable in the infirmary, and that he should not be certified as unfit to plead unless it was absolutely necessary, for otherwise he always had the grievance (although they might know that he was really guilty) that he was a criminal lunatic without having been proved to have committed a crime.

Dr. MACDONALD said Dr. Brayn's case of the boy at Broadmoor was extremely interesting, and he would like very much to know what the Commissioners thought of the matter now. There was one interesting point about the table Dr. Cotton had prepared, and that was the enormous difference in the lower grade in 1904 as compared with 1903, and further he was not prepared to see the extraordinary difference there was between the sexes. He was afraid it did not reflect very creditably upon the male sex. It was a most interesting contribution to their proceedings, and he was sure they were all very much indebted to Dr. Cotton for his paper.

Dr. J. STEWART (Clifton) said he had been much interested in the valuable information Dr. Cotton had so diligently compiled, and they were under a corresponding debt of gratitude to him. It was very much the habit to speak contemptuously of all people who had the misfortune to be in prison. They as psychologists, who went deeper into the thing than the general public, could see what the general public could not see and what they would not believe if they were told, that there were a number of poorly born, poorly bred, poorly fed, and in every way unfavourably circumstanced people among the habitual offenders.

Dr. COTTON, in replying to the comments offered, said it was a curious thing that prisoners charged with any offence were not seen by any medical man. Another thing was that the magistrates in sending a prisoner to gaol might send with him some information. What information they had they generally got next morning from the morning papers, and in some cases of lunatics who had been sent up without any information at all that might have come too late. As to the habitually weak-minded offenders, he did not think it was possible to send them to

the asylum. The asylum was too good for them. They required a firm discipline all the time, and the pity was that they should be subject to the modified prison discipline for so short a time. A sort of prison asylum would be the best thing for these offenders, these weak-minded persons who lead lives of a low criminal character, stealing, drinking, and committing acts of folly against which the public had to be protected. The asylum was too good for them: the prison discipline must be modified for them and it was modified. It was impossible to certify them because they were not delusional. The existence of dangerous delusions was the test of insanity so far as concerned their prison inmates. The criminal responsibility of a prisoner referred to the state of mind of a prisoner at the time he committed the deed, and of that the prison officer had no direct knowledge, he could only testify to the time he had the prisoner under observation. The question was often referred to the prison medical officer, but it was really not his business. It was only his business to testify to the condition of the prisoner when in prison. He had to determine the fitness of the man to plead and the extent to which the man was punishable, not the state of mind at the time of the crime. As regarded the increase in numbers for the second period to which his figures referred, he believed himself it was due to the Licensing Act which came into force at the beginning of the second period and which enabled the officers of the law to cast their net a little further afield. Anybody could be taken up now for being drunk in a public place, whether they were disorderly or not. That gave a wider sweep of the net, and the larger the sweep the more weak-minded they got. With regard to the proportion of males and females too great importance should not be attached to the figures because in the case of the females the figures were smaller and not very conclusive. In the case of the males there were sufficient numbers to draw certain conclusions, but in the case of the females the numbers might be due to some accidental consideration. With regard to the use of the term "inebriate," there were probably as many forms of drunkenness clinically as there were forms of lung disease, but the word "inebriate" was used in the sense found in the Inebriates Acts.

A Plea for the Closer Study of the Body-Weight and its Relation to Mental Disease. By C. HUBERT BOND, D.Sc., M.D., Medical Superintendent, County of London Colony, Ewell.

My paper will not be a lengthy one, and should perhaps be prefaced with an apology. For it contains no new facts, nor have I the results of any investigation to communicate.

I am also fully alive to the fact that, from the therapeutic standpoint, the subject can acquire no new force from anything I can say; for the simple reason that the "gospel of fat," as applied to the treatment of mental disease, has been so eloquently and convincingly preached by Dr. Clouston that none remain of whom converts can be made. We all fatten our patients as early and as rapidly as we can, though some of us perhaps pursue a more vigorous alimentation than do others; and probably most of us in saying good-bye to our recovered cases are in the habit of cautioning them to keep a close watch on their body-weight.

Presuming, then, that we are all thus so far in agreement, my object in asking your indulgence for a few minutes is twofold. In the first place, I want to point out that the usual method adopted, not only by the lay public but also by medical men generally, for recording and speaking of gains and losses in weight of their patients, is not the most satisfactory, and is not conducive to the readiest appreciation of the significance of such change in weight. And in the second place, I am going to venture to suggest that in relation to insanity this valuable clinical practice of weight-taking may not only be utilised in the direction of treatment, but also may possibly be turned to account as a help towards the better classification of our cases—a subject that must ere long inevitably engage our attention.

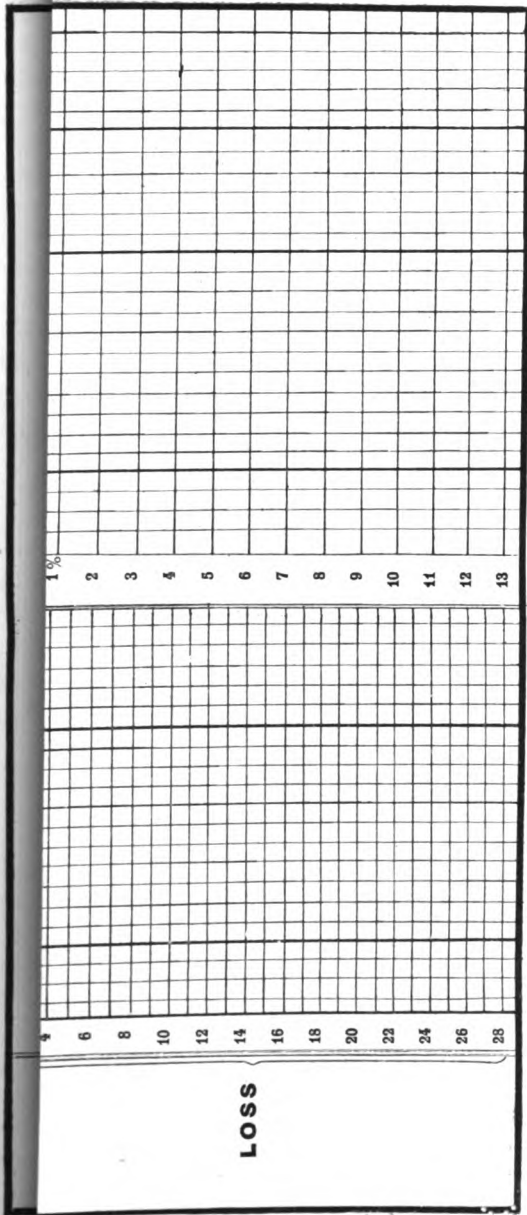
General Method of Stating Changes in Body-Weight.

Taking these two points in the order mentioned, are not all of us in a position to confess that, in describing the clinical course of a case, either as descriptive of the disease or as illustrative of the action of some remedial agent, our usual custom is to quote either the actual weight of the patient at different dates or the actual increments and decrements, and commonly in pounds or stones and pounds? True, we practically always state the weight of our patient as found when he first came under treatment, so that we are not without the data necessary to paraphrase these expressions of weight in terms easier to grasp. But I submit that the customary method—applied either to a description of a case, to bed-side records, or to notes in a case-book—of from time to time stating the actual weight, or a gain or loss of so many pounds, particularly if such figures extend over a series of dates, robs these valuable clinical data of much of the force they might otherwise obtain; whereas, were it our habit to express these variations in weight in the form of percentages, a much clearer mode of thought and estimation of their significance would be induced. A gain of a stone in a given period following a certain course of treatment sounds much more successful than another of nine pounds; yet, if the normal weight of the patient in the former case be 13 stones and in the latter 8½ stones, the proportionate gain has been the same in both instances, *viz.* (approximately) 7½ *per cent.*; and it is a pity, I think, that in text-books or monographs variations in weight

are so seldom thus expressed. Indeed, practically the only circumstances under which you will find the method at all extensively adopted is in descriptions of the normal rate of growth of infants, where such statements, as that the child's weight at the end of the fourth month should be nearly double that at birth, etc., may be found; and again, in the compilation of weight tables in relation to height for purposes of life assurance. The principle is, of course, involved in the formula which states a person's normal weight as the quotient of the cube of his height in inches divided by 2,000—a variation of 14 *per cent.* above or below this not being regarded as inconsistent with health.

Terms of proportion suggested as most correct.—If it be conceded that a gain or loss of weight is best expressed as a percentage, it is necessary to settle the terms of such proportion. Undoubtedly the correct denominator (of the proportion expressed as a fraction) is the patient's normal weight; thus, if his weight on first coming under treatment be 112 lbs., and it show an increment of 10 lbs. by the time he is pronounced recovered, his normal weight would be looked upon as 122 lbs., and such a gain should be described as one of $(\frac{10 \times 100}{122})$ 8.2 *per cent.* It is not quite so plain sailing, however, when it is desired to express the intermediate gains between recovery and commencement of treatment, because the normal weight is probably not then known, and further slight perplexity arises when the variation happens to be a loss instead of a gain. My habit has been to always take the most recently recorded weight as the denominator (using this word in the above sense), except that, in the case of loss having occurred, the last maximum weight is taken. More difficult is the question as to which is the strictly correct way of calculating these percentages, when the disease from which the patient is suffering happens to be one, like general paralysis of the insane, in which increase of weight, at least beyond a certain amount, is a morbid symptom characteristic of the malady. It seems to me safer for purposes of comparison to follow the rules suggested in the foregoing remarks. These minor difficulties after all in no way impair the facility with which the method of expression by percentage can be applied to weight-taking, and are mentioned mainly to prevent their being overlooked.

WEIGHT CHART.



Allard & Son, Imp.

Weight charts.—It is surely somewhat of an anomaly and reproach, bearing in mind the close affinity that exists between the patient's body-weight and certain diseases (*e.g.*, pulmonary tuberculosis, diabetes, many forms of mental disease), in relation, not only to diagnosis and prognosis, but also to treatment and detection of incipient relapse, that greater attention has not been given to clearness and forcibility of expression; and what more satisfactory mode is there than the graphic one by the use of charts? Yet for the purpose of depicting the body-weight how seldom may they be seen in use! That they exist I have no doubt, but the only ones offered for sale which have happened to come under my notice are some designed to record the rapidly increasing weight of an infant, and they show the variations net and not as percentages.

The Special Relation of Body-Weight to Mental Disease.

If there is at all reason to think it curious that, even as regards general medicine, the results of systematic weight-taking are usually not more perspicuously set down on special charts or by other corresponding means, the anomaly becomes all the more remarkable when applied to mental disorders, particularly to certain forms. Am I overstating the case if I affirm that what the body temperature is to the physician in attendance on an infectious hospital, so is the body-weight to a physician in charge of a mental hospital? And what then would our opinion be of the clinical methods of the former hospital if we found it was their custom to record the temperature of their cases merely in the course of bed-side notes, and that they ignored the use of charts for this purpose. We should feel almost certain that one of their mainstays as a guide for treatment or as an indicator of the exact moment when active medicinal interference might perhaps save the patient's life was being neglected. And is it not to be feared that we are probably in somewhat the same position as regards our mental cases? True, perhaps our daily inspection of the patient more easily enables us to dispense with a very frequent use of the weighing machine than can such mere inspection take the place of the thermometer in a case of specific fever. I believe, however, as a matter of fact, that most of us do insist on frequent and regular weighings, but I venture to urge that, in the absence of the

systematic use of charts to express the results of those weighings, very much of the energy so spent is wasted.

Impressed with this, I drafted a chart, some specimen copies of which are at hand for your inspection, designed to meet this hiatus in my clinical records. The particular specimens submitted, you will notice, refer to a definite period, namely, the first two years after admission, if so be the patient remains under care so long; during this time it is presupposed that weighing shall take place every two months, and more frequently during the first months. Other charts are required for subsequent and indefinite periods.

Types of mental disorder.—The above-mentioned particular period of two years was selected with a definite object, and finally leads me up to a suggestion, a statement of which is perhaps the pith of my paper. It was selected because, for practical purposes, all recoveries in our asylum cases take place during that period; a certain small proportion of recoveries do take place after more prolonged lapse of time—less than 5 *per cent.*, however. Most of us will, I think, agree that, taking any one hundred consecutive admissions and analysing the results of treatment at the end of two years after admission of the last of the group, we shall have at our disposal, with the exception of, at the most, two or three, the whole of the recoveries that can be expected from that group of cases. Now, when analysing, for purposes of annual report, the recoveries that have taken place during the year, it has been my custom to make a note of the gain (rarely loss) in weight that has occurred in these patients while under treatment at the asylum. I found that, while nearly every admission showed a well-marked increase in body-weight, it was usually among the cases that recovered that the maximum increments were manifested. These frequently amounted to as much as 28 lbs., and in several instances to 42 lbs. And I was especially struck with the fact that, when these were worked out as percentages, there was a distinct tendency to a more or less uniformity of increase *per cent.* among certain groups of cases. The very high percentages sometimes so attained—when, too, in some instances from the history of the case the onset of mental symptoms had been quite recent and fairly sudden—suggested in my mind that loss of body-weight, doubtless variously brought about, might in certain cases reach such proportions that it could

fairly be regarded as one of the causal factors (perhaps even the principal one) that precipitated the mental attack. And, further, the tendency to an appreciable amount of regularity of increase in weight in certain groups gave rise in my mind to the hypothesis that in the systematic weight-taking of our patients, carried through a sufficiently large series of cases, it was not unreasonable to think that we had at our command, as it were, a natural colander by which we could strain off one group or more of cases from the general miscellany. I am fully conscious that at the moment this is only a "pious opinion" on my part, and that I am entirely without figures in support of it. So imbued, however, was I with the possibilities of such an investigation, methodically pursued, that, just prior to leaving the Bexley Asylum, I had partly schemed such a one out, which, in the hands of Dr. Dunstan, I believe is still being prosecuted. But confined to one asylum, even a large one, progress must inevitably be tedious and the results long in coming. It would be useless to base any conclusions upon a collection of cases numbering much less than a thousand. If, however, a few medical officers, one from each of some half-dozen asylums, would interest themselves in the matter, I would gladly co-operate with them and communicate to them the details of the scheme the groundwork of which has already been prepared. In this way the admissions into these several asylums during, say, the year 1905 would probably serve as ample material. But it is obvious that even then no summation of the results of such investigation could be concluded until after December 31st, 1907. I feel very convinced, however, that, even should such joint labour prove barren in the particular directions which I have indicated, sufficient points of interest would be made to fully repay time bestowed.

DISCUSSION

At the Annual Meeting, July 21st, 1904.

THE PRESIDENT.—We have to thank Dr. Bond for this very interesting paper on an important clinical matter. There is no question about the importance of observing the body-weight of patients, watching over them to see whether they are losing or gaining ground. We shall be glad to hear the remarks of members on the subject.

DR. RAYNER.—We are thankful to Dr. Bond for bringing forward a scheme, and we hope it will be carried out. We know that, as Dr. Bond put it, there is no more important point in the consideration of the progress of our cases than the body-weight oscillations, in the majority of instances; and if that is so it must be of the utmost value to have the progress recorded carefully and accurately, and in

a way in which it can be analysed in a very large series of cases. I hope his suggestion will be carried out, and I hope his chart will be very widely adopted.

Dr. HAYES NEWINGTON.—I would like to ask what weighing machine Dr. Bond uses. I think that is an important element in carrying out his system. A beam machine to weigh by dead weight is most inconvenient. We want a machine that can be carried about without getting out of order, and I think Dr. Bond will do us a service if he can tell us which machine he finds to be the best. Probably he has tried many.

Dr. ROBERT JONES.—I should be glad if the author would tell us who fills up the percentages. It seems to be so technical a matter, that even a well-informed assistant medical officer might shy at it.

Dr. BOND.—I would thank those who have spoken on the subject I have brought forward. As to who fills up the percentages on the forms, I find it is impossible for the nursing staff to do it. If mistakes are made, charts such as this are absolutely useless, so the work has to be carried out by the medical officers. I shall be pleased to give members interested, if they will kindly write to me, full information regarding my experience of weighing machines.

Modern Witchcraft: a Study of a Phase of Paranoia.

By CONOLLY NORMAN (¹).

WHEN any belief tends to reappear in various races from age to age and under various conditions of civilisation and education, it acquires a special interest because it probably depends on some general trait in the mental organisation of our species.

The sense of mystery from which we can never wholly rid ourselves is probably one of the primitive phases of human thought. It is perhaps connected with that great human desire to look beyond the surface of things, and to be unsatisfied with that mere recollection of phenomena which apparently satisfies our fellow-creatures who are lower in the animal scale. The sense of mystery, as the psychiatrist chiefly studies it, lies within the limits of the morbid.

Whether suspicion, which I am in the habit of calling the special emotion of paranoia, be a reversion or a denudation, or whether it be more immediately dependent upon the sense of mystery, I am not clear, nor have we now time to discuss, but mystery and suspicion are intimately associated in the minds of our patients.

Among the sane or partially sane or deemed-sane, the secular belief in witchcraft is perhaps the most remarkable example of a similar combination of feelings. Many of the phenomena of the belief in witchcraft are the same over all the world; and the machinations of the witch-finder among the Matabele are essentially identical with those of the notorious

Matthew Hopkins and of the Salem worthies ; nor were the " reasons " which convinced the Bishop of Rouen that Jeanne D'Arc was a witch very different from those which satisfied the Rev. Richard Baxter, the Rev. Cotton Mather, or Sir Matthew Hale, Chief Justice of England, or (of worse example) our own Sir Thomas Browne, who seems in this matter to have lost his reason in an *O profunditas*, and to have followed only too closely the maxim of the fierce African whom he quotes—*Certum est quia impossibile est.* (2)

These thoughts suggest themselves when we find reappearing, among the paranoiacs of to-day, notions having the closest kinship with some of the old witchcraft superstitions, although we can be tolerably sure that the victims of to-day's delusions are quite unfamiliar with the history of the ancient belief.

One of the most frequent means whereby the witches of old were considered to influence their victims injuriously was to acquire possession of something pertaining to the latter, and, by exercising malign energy upon this object, which was in the hands of the witch, to transfer evil to the bewitched. Thus, among the ordinary apparatus of the craft were waxen images representing individuals to be operated upon. Pins were thrust into these images, and by this means pain or disease was produced in the originals thereof ; or the image was slowly melted and the victim lost flesh and pined away to his end like as his figure was dissolved by the heat. A picture could also be similarly treated. Anything that had actually belonged to the man or woman to be injured could be used in the same way ; being burned amidst incantations and blasting spells, it gave to these words and ceremonies their personal application. A picture or a portrait image, as more nearly representing the individual, had special efficacy compared with mere articles of property. But great value belonged to anything that could be considered as part of the victim himself. His handwriting was important, especially his signature, even when this was not appended to some contract with the evil one, obtained either surreptitiously or otherwise. A lock of hair was even more valuable to the witch than to the lover, and for the same reason, that it had been part of the living body of the subject—part of his or her very self. (3)

We find this thought reproduced with singular fidelity, though in a modern garb, among those paranoiacs of to-day

who entertain the very common delusions of mystic influence. The following cases will illustrate my meaning and exemplify a curious survival or, as one perhaps should rather say, reversion.

CASE 20624.—Female, æt. 20, came under treatment in December, 1901. She had been for a few weeks in one of the Dublin workhouses, whither she had come from a convent reformatory, where, it was said, her mental symptoms had first appeared about three months before. No further history was obtainable from external sources. The patient stated that she had been an orphan; that she was adopted by a lady, who brought her up as a servant. At little over 16 years of age she ran away with her mistress's coachman, who brought her to America. After a time he wanted to marry her, but she had already become jealous of his relations with other women, and so parted company with him and came back to Ireland. She adheres pretty closely to this story, which is probably approximately true. At the time of her admission she was clean and tidy in habits, capable of maintaining a conversation, and quite collected in manner. She said she had a vision of the B. V. M. in the workhouse chapel, and had also seen a cloud come down from the ceiling and a cross come out of the cloud. A voice in her ear had directed her to cut off her hair, and she had done so. Attempts were made in the workhouse to mesmerise her. A few days later she had formed numerous delusions as to her new surroundings: certain of the asylum officials were going to do something to her, and she knew this because she felt hot when they came near her.

January 17th, 1902.—She saw lights in the sky which were intended to mesmerise her. She heard a voice in the workhouse which told her not to speak, and she remained dumb for a considerable time (true). Does not know whose the voice was. They are always trying to mesmerise her through trap-doors in her bedroom ceiling and through the dormitory window. She says she heard one of the medical officers planning with a couple of nurses how she was to be mesmerised.

February 17th, 1902.—Her meat is horses' flesh; she knows by its peculiar taste; there is chloroform in her tea and on her meat; she knows by the smell. Chloroform is also administered to her at night through a trap-door in the ceiling.

March 17th, 1902.—Chloroform is nightly administered to the patients, who are then suffocated and brought away to have post-mortem examinations made on them. The coroner comes here every day to assist at the autopsies.

April 17th, 1902.—Searchlights flash through the sky, referring to her. People tell her they are employed to mesmerise her. The B. V. M. spoke to her and foretold many things that have come to pass. The medical officers smell of chloroform as they pass her. The night nurse influences her so that patient sneezes all the time they are near. Tells the nurses that she is the Duchess of Devonshire and of great talent, etc.

June 17th, 1902.—Is "the Spanish duchess," the "Duchess of Devonshire," "was born in Spain." She wears a drooping cap and a sash like a peasant in an opera, and says this is her native costume.

Nurse A. B. tries to drug her—"Whenever she comes into the ward I become unconscious." "It is like the effects of an anæsthetic I got for a dental operation—chloroform." She will, however, eventually rule this asylum, and put down the devilish work of doctors and nurses.

September 17th, 1902.—It is noted that she is quite tranquil in her behaviour and works usefully in the sewing-room. Is of Spanish descent, and so dresses as far as she can operatically. She is drugged by nurse A. B., so that whenever the latter passes her anywhere strange feelings come over her.

December 17th, 1902.—Says she is married to one of the assistant medical officers, who is a Spaniard, and about to be a prince. She writes this gentleman love-letters, which it should be said are not of a salacious character.

Such was her progress during the first year of her stay in the asylum. Hallucinations of smell, vision, and hearing; strong sense of occult influence; appearance of exalted delusion complementary to and not destructive of fundamental persecutory delusion.

Early in 1903 she began to accuse Dr. Norman of "influencing" her. He made her stupid and impeded her speech when he passed by. She "did not know" but "thought" this was by mesmeric means. Said that he stood behind her one day; in consequence of a sensation she experienced, she turned round and beheld that he had thrust his hand in the tail-pocket of his coat; ever after she experienced a sharp pain in the back of her chest on the left side whenever she saw him. Later on, things got worse. She complained, without any particular reason, of mitral valve disease, and also of pain in the cardiac region. It appears that one day as Dr. Norman passed by he asked her "how was the pain?" pointing with his finger towards her heart. She said nothing then, but afterwards she said that he had caused her dreadful pain by pointing at her, and had influenced her heart so that she fainted three times next night. By this manœuvre he had established a fatal influence over her; she felt ill whenever she saw him, and had pain in her heart, and sometimes all over, as if she was being prodded with pins. Furthermore, Dr. Norman influenced her so that she could hardly speak. When she tried to speak her tongue and her heart caught. (It may be mentioned, by the way, that she neither suffered from fainting nor from any perceptible difficulty of speech.) Finally, Dr. Norman was always annoying her through some mesmeric or hypnotic

influence. It affected her in speaking. It was as if there was a wire from her heart to her throat. Something also was given her in the night, for she felt stupid on waking in the morning, and had a bad taste in her mouth.

April 15th, 1904.—Makes a long statement as to her condition; says she has lost her will power. Dr. Norman was always influencing her by mesmeric and hypnotic powers. He knows everything that goes on in her mind, all her thoughts, all her acts, all her wishes. At night when she is in bed and he is in his own house, half a mile away, he influences her heart, and she feels something like a reel winding up in her chest. When she strives to speak he winds up this reel and prevents her. He has influenced her mind, her feet, her heart, every part of her. He is always making her think of things she should not think of, day and night. Says that she got a command once not to speak and did not speak for six weeks. Asked whose was the command, replies: "It might have been the voice of God or Dr. N—'s voice," then adds, "It must have been Dr. N—'s." Questioned, "But if it was Dr. N—'s, why did you obey it?" answers: "I had to do so when he had me under his influence." Question: "How did he get such influence over you?" Answer: "*He asked somebody to get my handwriting. I wrote a letter to a girl who is a friend of mine. They got it and gave it to him and once he had my writing and my signature he could influence me by that as he wished, and it was from this it all came—all that followed, I mean. I was then in his power. He could do what he liked when he had my signature to work on.*"

Since that she has frequently repeated the above statement. I have not been able to trace any probable source from which she can have picked up the notion, which I am inclined to think is primordial in her case. It is a perfect return to an old witchcraft idea which looks odd in its association with the modern jargon of "loss of will power," "hypnotism," "mesmerism," etc., but harmonises remarkably well with the mental tone of the hallucinatory paranoia, full of suspicion, full of mystery, and possessed of that curious hallucinatory sense of mental action which is controlled by something outside the patient's ego.

CASE 21,530.—Admitted May 11th, 1903. Male, æt. 32, single, plumber, Roman Catholic. No history of hereditary taint was obtain-

able, nor any detailed personal history, further than that he had been a hard drinker and that he had been about two years insane. On admission no organic visceral disease could be discovered, but he looked pale and worn, and appeared older than his stated age. He had numerous pieces of string tied round his fingers. He said they were "to prevent shocks." He gets shocks in his teeth: it often struck him it might be electricity. He complains of being tightened up. He feels his testes quite tight.

There was a couple living near him and their very movements meant something, for he often heard them working something like a battery. He also saw them carrying a jar and can (for the battery). "It is a curious-looking thing to see a woman carrying up a jar of water and it corked." He believes that they used to work on a photograph of himself with the battery and so affect him. He has seen animated pictures going round his room. On one occasion, about three years ago, he heard a voice and got a peculiar smell, but not recently.

May 12th, 1903.—Questioned about his health, he makes somewhat vague statements about his "private parts." He had "stoppages of water," and "burning pain in the passage," and a feeling as if he was "caught" in that region and "chucked" (? spasms of the levator ani). He has been to doctors and hospitals but has never been catheterised. Denies self-abuse, but professes not to have ever heard of it before. Questioned about shocks and electricity of which he spoke on admission, he is inclined to be reticent and is a little incoherent. Thus, he "knows it is all electricity: electricity is everywhere"; he knows nothing about electricity: he does not think of these things at all or let them bother him, and so forth. Again, he knows somebody was electrifying his head, but cannot tell who; it was or why it was done: neither will he describe how he knows he was electrified. He denies pains of a darting or indeed of any other character. Questioned about voices, he at first denies them, then says, "Of course, I often heard voices; in a big town you would often hear people talking," but on a little pressing, he admits that people talk to him at night. He does not know who they are: he saw no one, but heard voices which he did not recognise; they talk "vile filth; abominable, you would not believe that anybody could talk so foully unless they were out of their mind." They sometimes say "Give him the cat." He does not know what "the cat" is, but he thinks it means something bad, and he knows it refers to him, because this is said when he is getting up, or when he is going to pass water, or on some such occasion. Asked about "animated pictures," says he often saw them when alone in his room. They moved about as if they were on the walls: they were just like the cinematograph pictures he saw once in the Empire Music Hall. They were all kinds of pictures, but mostly figures of people. He describes them as "thrown before" him; believes that this was done by some kind of machinery, but does not know who did it. Says: "Of course, animation is well understood; if any enemy of yours gets hold of your photograph, they can use it in animation to injure and torment you. They may have got hold of my photograph for all I know." He looks haggard and ill. Admits sleeplessness "from shocks."

May 14th, 1903.—Somewhat more definite in his statements.

"They" (does not know who "they" are, but they must be enemies of his)—"*they have got hold of the dry plate of my photograph, and they put that in animation by working on it with an electric machine.*" By this process he explains visions are thrown before him, foul voices abuse him; he is made to suffer various distressing sensations (tightening, "chucking," etc.), and he has been made to smell foul smells. "The whole thing is done for annoyance and torment, and they work it on the dry plate of the photograph."

From May, 1903, to the present time (November, 1904), there has been no change of interest for our present purpose. The monthly notes indicate that he is generally tranquil, and works on the farm, though he will not work at his trade. He is silent and rather dull, with occasional episodes of mild excitement, due, he says, to the annoyance to which he is subjected, or his feeling of the injustice of his detention. He sometimes denies his delusions point blank, though always with an air of untruthfulness. He often replies, "I never think of such things." Usually, however, with a little patience, he can be induced to talk quite freely over them. He is annoyed ("chucked" and "turned round") by electric shocks, suffers from foul smells, visions, voices; had to be moved from one ward to another because the billiard-table in the former "puts animation" upon him. "I understand perfectly well what is going on—it is going on in the city every other day." "Animation is started first by a photograph." He is tormented "by animation and by pass." "You can work animation (when it has been started from a photograph) afterwards by electricity, by arc lamp, or telephone. The arc lamp or telephone-pole would be a pass." When I questioned him three or four days ago, he retained the belief that "they" had first worked upon the dry plate of his photograph and thus put him in animation. At first he had not known that he was in animation, "because you can be electrified just as you can be mesmerised without knowing it."

In this "dry plate of the photograph," operated upon by electricity and producing sufferings of various sorts in the original of the photograph, we have a singularly close reproduction in very modern language of the old belief of the waxen image pierced or melted to make its original suffer.

CASE 19,868.—Male, æt. 39, single, butcher, Roman Catholic, a hard drinker. A sister is said to have died of water on the brain. After this patient was admitted one of his brothers became insane and

is a patient in the asylum. The patient we are now considering was about sixteen months ill before his admission in July, 1900. He had meanwhile been confined in a private asylum near Dublin. It would appear that his illness was first noticed when he declared that his engagement to a certain young lady had been broken off through the action of the man with whom he lodged, whom he accused of having printed patient's letters to this girl and strewn them about the street. Patient then said that his engagement was broken off through the hostility of the public. It is probable that his amour was entirely ideal, for he himself now states that he was "nearly engaged, but we never could understand each other and had never spoken of love!" On admission, he stated that he had "flash communications" with a woman, whom he does not know, but who talks to him incessantly about his private affairs. Asked what are "flash communications," he answers, "communicative force," "supernatural force." The voice of the woman refers to his love affairs. This keeps him awake at night. The flash light has the power of warning him by bells and voices of impending danger, and also of transmitting his thoughts to other places. Even the horses' hoofs have the power of calling out his name under the bidding of this electric power. On one occasion a couple of persons appeared in the phonogram above the bed when the flash was on. On another occasion he saw a well-known surgeon passing before his eyes during the flash. He stated that he heard the flash voices chiefly (and he sometimes said altogether) in his left ear. He is deaf of the left ear, owing to chronic middle-ear disease.

He had odd hypochondriacal notions about his health, the action of his bowels, and so forth. He was tranquil in behaviour, somewhat sullen in manner, solitary in habits, excessively suspicious, and mysterious. He was able to work on the farm, but generally loafed in a pre-occupied way, muttering to himself.

His state appeared virtually unchanged when his friends removed him from the asylum in November, 1900.

During his stay on this occasion he made no reference to phonograms except what is mentioned above, and, as he was carefully studied and noted by my colleague, Dr. Forde, I do not think any reference of the kind would have escaped observation.

December 31st, 1902.—Was re-admitted. Presented no signs of visceral disease, but he was pale and somewhat puffy about the face. He had been drinking hard since his discharge as long as his money lasted. Expression at once harassed and self-important. Somewhat jerky in movements and tending to roll his eyes in an affected way; left pupil slightly + : K. J.s + ? He talked tranquilly in a hurried undertone. Sexual hypochondriacal delusions. Says he is not a man, and has had to play a masculine part: "I had to wear a truss when I was young; I am between a man and a woman; I am in a most peculiar position." Owing to the cruel conduct of his relations, who refused to give him money, he had to go to the workhouse. While there he received supernatural messages of great importance by phonograph. "It all began through the phonograph. *Some years ago when the phonograph was new I was asked to speak into the phonograph that I might hear my own voice. I did so, and they have got hold of my phono-*

gram and are always interfering with it. I was sent here because my phonogram was exposed to the public and everybody could work upon it."

The day after his admission he said he received important "flash messages," but could not be got to explain whether these were visual or auditory. The notes of the next two months contain references to flash messages. At the end of February he stated that he heard messages, also that he had phonographic visions. Subsequently he stated to me on one occasion that he was conscious of messages communicated to him by working upon his phonogram, though he neither saw nor heard them. Again, in September, 1903, he is noted as saying, "When I speak my breath flashes words to me." In December: "I hear the phonograph day and night; it sends me constitutional messages." (This phrase seems to mean messages about his health and sex, etc. He retains the notion that he is not a man. He often complains that his bowels do not act for months, and he has some obscure ideas about food, that it is wrong to eat much—or little—that he must be careful about his food, and obey the messages he receives relating thereto.) At the same time he said, "I see faces; I see my father's face, though he died nineteen years ago." Another time he said, "My thoughts were exposed on the phonogram plate."

In the midst of a good deal of incoherence and confusion he always returns to the notion that the beginning of all his trouble and of all his "messages" and mystic communications was the exposure of his phonogram and the fact that his phonogram got into the hands of his enemies. He once said to me, "You can do anything with a man's phonogram by putting it into an electrical battery."

Here again that very personal thing "a man's phonogram" plays the part which "the dry plate of the photograph" played in the previous case and the autograph signature in the first. In all we have so striking a coincidence with the machinery of witchcraft that it is difficult to believe that we are merely in face of an accidental resemblance. Either there is a tendency in the human mind, sane and insane, to a belief in this form of vicarious agency, or else such a belief belongs to insanity alone. In the latter case it became associated with the witchcraft superstitions because the unhappy "witches" were mostly insane and spoke of these strange agencies in their confessions. The frequency of these confessions, notoriously unavailing as they were, strongly suggests the insanity of those who made them. That reputedly sane people believed these confessions, which were wont to be stuffed with incredible absurdities, is probably to be accounted for by the circumstance that such wise folk, while they thought they were acting under the dictates of reason, were really the blind instruments of that hatred of the mentally unsound which seems as natural to man in all but

the most recent phases of civilisation as is the instinct which bids the gregarious animals destroy one of a herd who is diseased.

(¹) Read at a meeting of the Irish Division on November 4th, 1904, in Dublin.
 (²) "I love to lose myself in a mystery, to pursue my reason to an *O altitudo!*
 . . . I can answer all the objections of Satan and my rebellious reason with that odd resolution I learned of Tertullian: '*Certum est quia impossibile est*'"
 (*Religio Medici*, i, 9).—(³) Thus the lover in Göthe's song, *Lebendiges Andenken*, tells us other swains have received tokens from their loves—ribbons, veils, kerchiefs, garters, rings, and these—

Sind wahrlich keine kleinen Dinge;
 Allein mir sind sie night genug.
 Lebend'gen Theil von ihrem Leben,
 Ihn hat nach leisem Widerstreben
 Die allerliebste mir gegeben,
 Und jene Herrlichkeit wird nichts.
 Wie lach'ich all der Trödelwaare!
 Sie schenkte mir die schönen Haare,—U. S. W.

A coarser application of the same notion is perhaps to be found in the homelier words of the historian of Sir Hudibras, where he says—

For as when slovens do amiss
 At others' doors
 The learned write, a red-hot spit
 B'ing prudently applied to it,
 Will convey mischief
 Unto the part that did the wrong.

(Part I, Canto 2, line 235.)

DISCUSSION.

Dr. DRAPER said he had had one or two patients who had a firm belief in witches. One was a policeman who believed in the Banshee, and thought that his wife was possessed. Insanity took its colour from the spirit of the age, and nowadays we did not hear of witchcraft delusions because we had grown out of this belief. The inspirations of the insane were now taken from modern developments of electricity, phonograph, etc. These patients were living in a past age; they had not developed normally, and so retained these old beliefs.

Dr. LEEPER said that witchcraft had at one time received the sanction of Holy Writ—for example, the witch of Endor. This was looked on as an established fact, and in our speculations on the subject we should not forget the considerations which induced those people to hold such beliefs.

Clinical Notes and Cases.

A Case of Amaurotic Family Idiocy. By JAMES BURNET, M.A., M.B., M.R.C.P.Edin., Senior Clinical Tutor, Extra-mural Wards, Royal Infirmary; Registrar, Royal Hospital for Sick Children; and Physician to the Marshall Street Dispensary, Edinburgh.

CASES of amaurotic family idiocy are sufficiently rare to warrant me in placing the following notes before the readers of this Journal.

The patient was a male infant, æt. 18 months. He was brought to me on account of his backwardness. His parents were Jews. So far as could be made out none of their relatives had ever suffered from mental disease, nervous affections, or syphilis. During her pregnancy the mother had had a great deal of worry. She was a distinctly nervous woman, but by no means hysterical or excitable by nature. The labour was not specially difficult, but she was under chloroform just before the birth of the child. This was given, she thought, because of her lack of strength. Her previous pregnancies and labours were uneventful. She had had no miscarriages.

The infant a description of whose case I am about to relate was the seventh child. Of the others, three died in infancy. The following table indicates the ages at which the latter died, and also shows the ages of the others still living.

No. of child.	Sex.	Age.	Alive or dead.	Remarks.
1	F.	3 weeks	Dead	Died of facial erysipelas.
2	F.	13½ years	Alive	Healthy. Became blind at 18 months, and continued so for about 18 months. Blindness then disappeared after an attack of measles.
3	F.	10½ years	Alive	Healthy. Subject to bilious attacks.
4	F.	13 months	Dead	Became gradually blind and died of meningitis (P).
5	M.	6½ years	Alive	Healthy.
6	M.	6 weeks	Dead	Died of fits, during an attack of bronchitis.
7	M.	1½ years		Subject of present article.

The house in which the patient resided was situated on the ground flat. It consisted of two rooms, and one was very dark, looking out upon a back yard. The child had not been much out in the open air, as the mother was pregnant and, therefore, unable to take him about with her.

At birth the child seemed perfectly healthy. He was breast-fed until he was 14 months old, but had been getting other things besides during that time. He was now having ordinary food along with his parents at table. His first tooth was cut when he was 13 months old, and he has now eight teeth altogether. He could not walk, nor sit up, and the only words he could say were "mam" and "po-po." On the whole his digestion was good, but he occasionally had attacks of diarrhoea and vomiting. He slept well during the night, but

slept little, if at all, during the day. He had never had any fits. The head was large and showed slight bossing. The fontanelle was still open, but there were no signs of craniotabes. The root of the nose was depressed. The abdomen was very prominent, while there was distinct enlargement of all the epiphyses.

When three months old he had pneumonia, and had been subject to attacks of bronchitis (? rachitic) ever since. He had no history of any other illness, and had not had any infectious disease.

His present condition had developed gradually, the mother noticing that the child was distinctly backward for his age. He had never been a strong child, but nothing special was observed to attract the attention of the parents to his condition. He seemed to be getting more and more listless and apathetic, was less contented than he used to be, and required a great deal of nursing and attention.

On examination, I noticed that the child was distinctly apathetic-looking. As he sat on his mother's knee, with his back supported, his eyes seemed to be fixed vacantly on the ground, while his tongue was constantly protruded. He was soft and flabby, with fairly well-marked anæmia. The skin was healthy-looking, but the head was very moist. There were no eruptions about the body, nor was there any œdema. He appeared to be quite good-natured, and made very little resistance while being examined. The hair was neither coarse nor scanty, and there were no marks of degeneration present about the body, nor were there any enlarged glands. The cry was somewhat peevish, but was not weak. The child was evidently markedly rachitic, and I remarked at the time that his fingers were somewhat pointed, while the terminal phalanges of the thumb showed a definite tendency to be hyperextended.

The head was somewhat square-shaped and large. The anterior fontanelle was still open for a considerable extent. There was well-marked backward curvature of the spine. Intelligence was evidently impaired. The muscles were soft and flabby, but there were no signs of paralysis. The child could stand if supported, but could not do so alone, neither could he sit up. The head had to be held up, as if unsupported it tended to fall backwards. The reflexes were normal, but somewhat sluggish. The sensory functions were unimpaired, and the limbs were not specially tender. Hearing appeared to be slightly defective, as when a loud noise was made the child did not show signs of hearing it. The patient took no notice of my hand when waved in front of his face. A bright light seemed to make him look in its direction, but he apparently could not appreciate its exact locality. On ophthalmoscopic examination, made under considerable difficulty with the aid of an oil lamp, the optic discs appeared atrophied.

I greatly regret that, owing to my absence on holiday, the child was taken out of my hands, and placed in a general hospital. Here he seems to have contracted a chill, for on my return home I was sent for to see the child, whom I found suffering from bronchopneumonia. He eventually died from exhaustion, three months after I first saw him. As I had seen the child when he was about six months old, and several times afterwards, I was not surprised to find him suffering from blindness, when he was brought to me at the age

of 18 months. He had previously always appeared to me to be somewhat deficient, and knowing as I did the family history, I feared lest he too might develop blindness.

The treatment I advised was extract of thymus and cod-liver oil ; but, as already mentioned, my absence on holiday apparently prevented the treatment from being carried out.

The case was evidently one of amaurotic family idiocy, and from the table given above it will be evident that practically every second child of this family developed blindness. It is further interesting to note that the first three children were females, while the last four were males. The second child became blind at the age of eighteen months, but, strange to say, recovered at the age of three years after a pretty sharp attack of measles. The mother has since been delivered of twins, both females, at about the eighth month of her pregnancy. They are very small babies, and one of them has a distinctly unhealthy appearance. The labour was easy and uncomplicated.

So far as I can gather, twenty-seven cases have now been recorded of this disease. It is a curious fact that most, if not all, of the cases have occurred in Jewish families. The disease usually proves fatal, as this case did, before the age of two years. I am convinced that it is not of syphilitic origin, but in all probability is due to some defect in the development of the nerve tissue. Meantime, I trust that these rough notes will prove of interest, as this certainly adds one more to a very limited list of recorded cases of this most intractable disease.

Mental Disease with Exophthalmic Goitre. (1) By R. H. STEEN, M.D.Lond., Senior Assistant Medical Officer, West Sussex County Asylum, Chichester.

MENTAL symptoms are present in almost all cases of exophthalmic goitre, and occasionally these symptoms are of such a pronounced type as to render the patient technically insane, and require his or her admission into an asylum.

Comparatively few such cases have, however, been published, and the text-books on insanity as a rule dismiss the subject in a few lines. Dr. Savage (*Guy's Hospital Reports*, 1883, p. 31) has reported several cases, and comes to the conclusion that, when insanity is associated with exophthalmic goitre, the prognosis is very bad ; this statement he reaffirms in his article on the same subject in the *Dictionary of Psychological Medicine*. Other authors are in agreement on this point, asserting that, if the disease does not end in death, dementia is almost certain

to be the result. It is on this account that I describe the three following cases, which, suffering from exophthalmic goitre with insanity, have made perfect recoveries as regards their mental symptoms.

B. H.—, female, æt. 21, single, farmer's daughter.

Family history.—Grandmother had an attack of insanity at the age of 50 and recovered. Mother has always been nervous, and has had "slight swelling in the neck." Two maternal aunts have had "swellings in the neck."

History of present illness.—She had always been a nervous girl of retiring disposition, and had never had any serious illness till the spring of 1898, when her neck was noticed to be enlarged. This disappeared under treatment. In the spring of 1899 this enlargement returned, and on June 25th, 1899, mental symptoms appeared with startling suddenness. While on a visit to a relative she was taken "in a swoon," and was then moved home. She did not realise where she was for several weeks, did not recognise her relatives, was noisy, and whistled and sang, but was not violent, and she refused food and medicine. This condition lasted about six weeks, after which she exhibited symptoms of melancholia with auditory hallucinations, and the delusion that she had killed two of her brothers.

She was admitted into the West Sussex County Asylum on November 25th, 1899, and was a pale, moderately nourished young woman, with well-marked signs of exophthalmic goitre. Pulse 160, the thyroid markedly enlarged, the right lobe being three times as large as the left, the eyes prominent, and Graefe's sign present. Subjective sensory symptoms—*e.g.* "pins and needles," "burning sensations," and at times "numbness"—were present in the legs, and there were no objective sensory signs. Motor system: She had slight tremor in arms when extended, with weakness of hand-grip. She had also pseudochoreic movements, which passed off a few weeks after admission.

The note on her mental state on admission is as follows: She is depressed, at times bursting into tears. Is very slow in conversation, and does not reply till after a question has been frequently repeated to her. She is frightened, and says she is afraid she is going to have her throat cut, feels she must "holler" when she goes out. Mutters disjointed ejaculations, *e.g.* "Peace! mercy!" Has auditory hallucinations; for example, she hears a "bell ringing" in her head, then suddenly asks, "What is a Court Martial?" When asked why this question, she replies, "I heard someone say it." All the conversation is conducted by the patient in a whisper.

She was placed on a mixture containing iron and aloes, to which later on Tr. belladonnæ, ℥v per dose, was added.

For the first few weeks after admission she was kept in bed. She was very restless, and required an occasional hypnotic at night. She was at times dirty in her habits, and required to be dressed, given her food, and generally looked after.

During January, 1900, definite improvement was noticeable, and the pulse rate had fallen from the average of 140 per minute to 90 per

minute. She was now able to dress herself and do a little work in the ward.

This improvement was maintained during February, though she still suffered from auditory hallucinations, and she had "visions of fishes and strange beasts."

From this time she continued to improve steadily, though slowly. The note on May 29th is as follows: "She is excitable and unstable, laughs without due cause, and rushes about the ward or garden in a childish manner. She is easily upset by trifles, when she is inclined to be sullen, but these fits do not last long. Is industrious and works well in the ward dormitory. Converses quietly and rationally." Has put on one stone in weight since January. Menstruation, which had been absent after admission, made its appearance in January, and has been regular since then. After this her convalescence was uninterrupted, and she was discharged as recovered on August 31st, 1900, fifteen months after the first symptoms had made their appearance. Her eyes were less prominent, but the enlargement of her thyroid was still marked, and the pulse remained at an average of 100 per minute. She has remained well up to the present time, and frequently communicates with us, and sends presents of flowers for the use of the patients.

As regards the treatment in this case, *Tr. belladonnæ*, given first of all in 5-minim doses, and later on increased to 10 minims thrice daily, appeared to reduce the pulse rate and be beneficial to her. Iron and aloes were successful in bringing on menstruation, but of more value, in all probability, were the general and dietetic measures taken to improve her general health.

This case might be regarded as an attack of adolescent insanity in a young woman with strongly neurotic taint, and in which the exophthalmic goitre was less of a cause than a coincidence. The following case belongs to an entirely different category, and in it the mental symptoms were those of autogenic poisoning, the toxin being produced by the pathological condition underlying exophthalmic goitre.

F. L. A—, female, married, æt. 35, bathing mistress.

Family history.—No heredity of insanity or other neurosis known.

Personal history.—Unimportant.

History of present illness.—Her son died on December 4th, 1899, and after this date her eyes were noticed to be prominent, and her neck commenced to swell. On July 31st, 1900, the anniversary of the dead boy's birthday, she became acutely excited, evinced exalted ideas; e.g., she bought a travelling confectioner's stock to set up a shop. She was admitted into the West Sussex County Asylum on August 4th, 1900.

The note on her admission was as follows: "Physically she is thin and anæmic, and presents the three cardinal symptoms of Graves' disease. The eyes are prominent, upper and lower eyelids retracted,

and Graefe's sign is present. The thyroid is markedly enlarged, the right lobe being larger than the left, the gland is pulsatile, and a loud bruit is heard over it. The pulse is 120, there is slight dilatation of the heart, and a hæmic murmur is heard over the heart area, being loudest at the pulmonary cartilage. Tongue is dry, teeth coated, and breath foul. Mentally, she is talkative, and mutters to herself. She gesticulates and declaims in a theatrical manner, chiefly on religious topics, and in extravagant language; for example, she says she is 'converted,' that she has been in Paradise, and has there seen 'hundreds and thousands of children all dressed in beautiful white.' She said, "I saw Jesus in the corridor, and He had on Him a beautiful robe." 'Lions would not hurt me, because God would close their mouths.' 'Thunder, lightning, bricks, mortar, walls, cannons, soldiers or sailors would not hurt me if they fell on me.' She says she intends to build a thousand houses in Littlehampton for poor people, and that she can pay for them, and that she can make 40,000 pillow-cases."

After admission, she was restless by day and night, dirty in her habits, frequently destructive to her clothing, and on one occasion broke a pane of glass. A slight improvement occurred at the end of August, but during September and October she became depressed, actively suicidal, and thus changed from a condition of acute mania to that of agitated melancholia.

The note on November 13th is as follows:—She is very feeble, thin, and is being kept in bed. Heart dilatation has slightly increased, and heart dulness reaches on the left to the nipple line. Thyroid gland and eyes the same as on admission; pulse 100. She is restless and uneasy. She mutters to herself about "lights," "fire," etc. When asked questions, she replies in a whisper that "nobody knows," "I don't understand." She has hallucinations of vision, hearing, and sensation; for example, she saw "lights" round her, sees "people who come and frighten me," says, "voices talk to me and say I can't go down there," and "earwigs crawl on my hair and on my pillow."

After this date she became mentally more enfeebled and seemingly demented. She did not recognise her husband when he visited, was restless, untidy, dirty, and destructive, sleepless at night, refused to converse, but continually muttered to herself.

In April, 1901, she became slightly stronger, and was able to be up for a short time daily. Up to this time the medicinal treatment had consisted of bromides, hyoscyamus, belladonna, digitalis and iron, which had been all tried in turn without producing any apparently beneficial result. In May, 1901, she was placed on supra-renal tabloids, gr. v, one thrice daily. There was little improvement at first, but gradually she became stronger, and her mental condition was less that of stupor, and more that of agitated melancholia. At the end of August, 1901, the note reads: "She is very restless, and wanders aimlessly up and down the ward. Refuses to converse, but answers with a swear, e.g., says 'bloody lie.' Refuses to allow anyone to touch her. Moans and mutters to herself. Has apparently auditory hallucinations, and she talks loudly, as if addressing imaginary people." Her appetite at this time was ravenous, and she had frequently great pain after eating. During September, 1901, she showed some signs of

improvement, and on rare occasions would talk quietly and rationally. The supra-renal tabloids had now been increased to two thrice daily, and later on to three tabloids thrice daily. In October she was distinctly better, was less restless, and was able to sleep in the dormitory instead of in a single room as formerly. She recognised and conversed rationally with her husband on his visits. She was, however, still unstable, had occasionally fits of crying, at times would again be destructive, and expressed the delusion that her food was poisoned. Her weight commenced to go up, and her hair, which had almost all fallen out, grew again. From this time onward her improvement, though slow, was steady, and on September 26th, 1902, she was discharged, recovered, having had a month's trial. She has been heard of frequently since her discharge, and is keeping well and following her occupation of bathing mistress.

This case is interesting for the following reasons :

1. The very long duration—over two years.
2. The apparent hopelessness of recovery in June, 1901.
3. The marked improvement which took place coincidentally with the administration of supra-renal extract.
4. The absence of improvement with other drug treatment.
5. The prevailing mental condition was that of agitated melancholia.
6. The bodily symptoms were marked, and included proptosis of eyes, enlargement of thyroid, tachycardia, at times slight pyrexia, tremor of muscles, digestive disturbances, loss of hair, and malnutrition. Her weight in July, 1901, was 6 st. 4 lbs., and on discharge it had increased to 10 st. 1 lb.

The third case has many points of resemblance to the last. M. A. C—, female, married, æt. 45. Neurotic heredity denied. She has had an enlargement of the neck for the past twenty-five years, but has only suffered from palpitation for the past two years. Married twenty-four years, ten children. The present attack commenced on October 5th, 1903, with loss of memory and delusions of annoyance. She was admitted into the West Sussex County Asylum on October 12th, 1903, and was eight months pregnant. On admission she was anæmic and the skin slightly yellowish in colour. There was marked enlargement of the thyroid, the enlargement being greater on the left side than the right. Faint blowing systolic murmurs present over the edge of the enlarged thyroid. Heart slightly dilated, pulse 98. Eyes not markedly prominent, and Graefe's sign absent. Mentally : She was quiet, well conducted, but markedly confused as regards recent events. She had hallucinations of hearing, sight, and taste, which gave rise to delusions of a persecutory nature. After admission she remained much the same till November 26th, when she gave birth to a male child. After this she gradually became worse both mentally and physically. She began to refuse her food "as it was poisoned," and became very restless, refusing to stay in bed by day or night.

During December, 1903, and January, 1904, she gradually became worse, and the note on February 15th was as follows:—"She is emaciated and feeble, pulse 76, respiration feeble with frequent sighs. Tongue is red and of raw appearance. There is no nausea, vomiting, or diarrhoea. Abdomen hollowed. There is general muscular weakness and tremor of eyelids, facial muscles and outstretched hands. Knee-jerks weak, plantar reflexes normal. The upper eyelid is retracted, especially under emotion; there is slight lagging of the upper lid on looking down. There is no marked proptosis present. Pupils equal and react to light and accommodation. Voice is feeble, and she only speaks in a whisper. Menstruation absent. Skin yellowish, and dusky pigmentation is present on shoulders, and front of patellæ. Hair is scanty. Slight enlargement of glands of axillæ and groins. Mentally: She looks tired and depressed, and frequently weeps. She is restless in an aimless manner. Frequently tries to get out of bed, and pushes the bedclothes from off her and takes off her night-dress. She is fearful and anxious, and says she is afraid she is going to be 'chopped up.' There is considerable difficulty in persuading her to take sufficient nourishment. She is confused as regards her identity, and says she is single, is not sure if she has any children, and does not think her name is Mrs. C.—. She has hallucinations, auditory, visual, and of general sensation. For example, she hears 'voices'; says that she sees a 'woman in white,' who goes into her room, and frightens her; says that 'the food and water are poisoned,' and that she has a 'nasty dark taste' in her mouth. She has tingling sensations in her hands, and a feeling as if water were running over her."

She was placed on supra-renal tabloids, gr. 5, one twice daily, on January 30th, 1904, and this dose was increased to two thrice daily on April 20th.

During the months of March and April little improvement was noticed. She was gradually losing weight, was very depressed, and attempted suicide on two occasions, and frequently required mechanical feeding.

In May she was able to be got out of doors for a short time daily, and there was slight mental and physical improvement, though her weight, which had been 10 st. 5 lbs. in November, 1903, dropped to 5 st. 7 lbs. at the beginning of June.

In June she was taken out in an invalid chair for the greater part of the day, and her weight began to increase. There was also marked mental improvement. The confusion gradually disappeared, and she recognised where she was, and conversed with her husband intelligently, and evinced interest in her home and family. The depression and hallucinations also vanished.

During July and August the improvement in her mental condition continued, the note at the end of August reading: "She is quiet and cheerful, is able to go to church and attend the entertainments; she helps in light ward work. She converses rationally. As regards her general health, she has occasional headaches, and pulse-rate remains high—120 to 130, but she is less 'nervous' and less tremulous. The thyroid is still enlarged, but all eye signs have disappeared. Her weight has increased by 4 stone since June. It is hoped that this patient will

shortly be able to be discharged, as she is apparently making a good recovery." (?)

The points of interest in this case, which resembles the previous one in many respects, may be summarised as follows :

1. The seemingly hopeless nature of the illness at the early part of 1904.
2. The benefit derived from supra-renal extract.
3. The mental symptoms, in the main those of melancholia.
4. The marked increase in weight coincident with mental improvement.
5. The fact that the patient became much worse after the birth of her child. That there is some relation between the uterus and the thyroid gland has long been known, but the subject is still wrapped in considerable obscurity.

A fourth case of exophthalmic goitre, which has been under my care, has had a less satisfactory termination than that of the preceding cases.

E. L—, female, æt. 31. She had a family history of insanity and exophthalmic goitre. She was admitted into the West Sussex County Asylum on December 9th, 1901. She had marked exophthalmos, enlargement of the thyroid, and tachycardia. Mentally she was restless, noisy, excited, violent, dirty in habits, sleepless, resistive, and refused food and medicine. She continually whispered to herself, and had auditory hallucinations.

On December 16th, one week after admission, she suddenly became cyanotic, her pulse became so rapid as to be uncountable, and she had marked dyspnoea. All remedies were unavailing, and she died within two hours of the onset of these symptoms.

No definite conclusions can be founded on so small a number of cases, but they suggest the following reflections :

1. The mental symptoms in insanity with exophthalmic goitre are in the main those of a restless melancholia.
2. Hallucinations are present, and are frequently intense in character.
3. The onset of pronounced mental symptoms is frequently acute.
4. Recoveries from the mental attack take place even in cases which appear to be hopeless. The danger of a fatal attack of syncope in the acute stage has to be borne in mind.
5. A marked increase in weight accompanies the improvement in the mental state.

6. Supra-renal extract exercises a beneficial effect on the patient.

(¹) A paper prepared for the autumn meeting of the South-Eastern Division, held at the Priory on October 6th, 1904. (²) This patient was discharged recovered on December 2nd, 1904.

A Case of Pseudangina Pectoris in an Epileptic. By
H. ROWE JEREMY, M.R.C.S., L.R.C.P., Assistant Medical
Officer to the Canterbury Asylum.

THE following case is one which, whilst being interesting as a typical case of pseudangina or vaso-motory angina pectoris, presents further interest in occurring in a patient suffering from epilepsy.

The patient is a married woman, æt. 39, who was admitted into the Canterbury Asylum on February 5th, 1904, with the history of epileptic fits and recurrent maniacal attacks, coming on usually after a fit. This was her second admission; she had previously been under treatment for the same disease in the asylum from March to November, 1903.

She is a small, thin woman of about 8 stone, markedly anæmic, and of a highly neurotic temperament. She has right dorsal scoliosis, and in consequence her thorax is much flattened on the right side in front and projects posteriorly, and on the left side projects anteriorly and is flattened behind. Her lumbar spine is convex to the left, and her pelvis is tilted down on the left side. This deformity gave rise to difficulty during parturition; she was married at twenty-one years of age, and has had three children, the first a year after her marriage, and forceps were required at each birth. All the children were born alive; she has had no miscarriages.

The scoliosis came on when the patient was sixteen years old, and she believes its appearance was due to a fall she received over a chair.

She first began to have epileptic fits after the birth of her first child, at twenty-two years old, and, although the onset is late, the convulsions are typical in character and show no signs of being due to any local lesion.

There is no history of epilepsy in the family, but there is a history of insanity; her first cousin committed suicide whilst insane, but unfortunately there is no record of the type of insanity.

There is no family history of alcohol, syphilis, gout, or rheumatism. The patient has not had rheumatism, chorea, tonsillitis, gout, or influenza, and has been a temperate drinker. She suffers from dyspepsia and flatulency, largely due to the decayed state of her teeth, and constipation; she frequently has frontal headaches, and at times complains of "pins and needles" in her legs. She shows no signs of approaching menopause.

On March 5th, 1904, she was suddenly seized at the dinner-table with sharp pain over the region of the heart and breathlessness. She sprang up from the table screaming, and dropped on to the floor, rolling over and over, clutching at the root of her neck and the left side of her chest with both hands. She described the pain as "a hand squeezing her heart very tightly"; the pain starting in the cardiac region, and shooting into the back between the shoulder blades, up into the neck as far as the ears, and down the left arm to the wrist. She complained especially of the tightness, which was greatest at the root of the neck, and caused her to exclaim she "would be choked to death." Her features were distorted and blanched and covered with a clammy sweat. She tossed on the floor and gasped for air. The acute pain lasted four to five minutes, but, to a lesser degree, the feeling of constriction and the pain over the præcordium lasted about fifteen minutes, leaving the patient fatigued and very frightened.

After the acute pain the patient vomited about a tablespoonful of clear fluid, and eructations of wind occurred.

During the attack the radial pulse was regular, 84, and of a good stroke and volume; the tension was increased, but the pulse could be obliterated by the pressure of one finger, and the artery beyond remained empty and pulseless. There is no thickening of the arterial walls.

The heart's apex beat was in the fifth intercostal space, a quarter of an inch outside the mid-clavicular line, circumscribed and heaving in character; and the area of superficial cardiac dulness began above at the level of the fourth rib, and did not extend further to the right than a finger's breadth to the right of the left border of the sternum, or to the left beyond the apex beat.

The heart sounds were normal at the apex, but at the base the second sound was markedly accentuated in both the aortic and pulmonary areas. There were no adventitious sounds.

Whilst I was examining the chest the patient complained of pain in some of the places where the chest was touched, and after the acute attack had subsided I endeavoured to map out the exact area of superficial tenderness. This was tested by gently pinching or stroking the skin, beginning in an area which was not tender, and working towards the suspected tender area and so marking out its boundary. Pain on slight pressure or gentle pinching started above at the level of the upper border of the left third rib and extended downwards as far as the middle of the fourth intercostal space, where the hyperalgesia became more marked and could be elicited by a slight touch on the skin. This tenderness extended downwards as far as the sixth rib, and was most acute in an oval area about two and a half inches by one inch over the cartilages of the fifth and sixth ribs near the sternum. The cutaneous hyperalgesia did not extend beyond the mid-line of the sternum, but it extended around the left side into the back in a band, and lay between the levels of the second and sixth dorsal spines, there being a circular area of about two inches diameter of acute tenderness at the level of the fifth and sixth dorsal spines near the middle line; it did not extend across the middle line behind.

There was no superficial tenderness on the left arm; nor could I

ascertain the existence of any tenderness in the supra-orbital region, such as is described by Head ⁽¹⁾ in true angina pectoris.

The pain was relieved by trinitrine in solution.

The patient has since had one attack of lesser severity, which occurred on April 3rd, and was brought on by excitement. In this attack the pain and cutaneous hyperalgesia were similar in character, course, and distribution to the first attack; and the pain in this instance was relieved by an ammonia and ether draught, which appeared to be as efficacious as trinitrine in its effect.

The heart has been repeatedly examined, and, beyond the hypertrophy, there appears to be no lesion. The second sound at the base is invariably accentuated to some degree.

Her urine is of a normal specific gravity, and contains no albumen, sugar, or excess of phosphates.

The neurotic temperament of the patient, the long duration of the pain, and the restlessness during the pain, together with the absence of signs of arterio-sclerosis and heart disease, make the diagnosis of vasomotor angina from that of angina pectoris gravior.

That angina pectoris occurs in families with a history of insanity or epilepsy was remarked by Eulenburg ⁽²⁾, who was one of the first to class disturbances of the vaso-motor nervous system as a variety of cardiac neurosis causing angina.

Occurring in a patient the subject of epilepsy, the condition is interesting inasmuch as it suggests that the attack of angina pectoris might be due to a disturbance of the cells of the vaso-motor centre of the medulla oblongata similar to the disturbance of the cells in the cerebral cortex, giving rise to an epileptic fit.

(1) *Brain*, vol. xix.—(2) *Allbutt's System of Medicine*, vol. vi.

A Note on Veronal as a Hypnotic and Sedative in Mental Affections. By H. DE M. ALEXANDER, M.D.Edin.,
Senior Assistant Physician, Royal Asylum, Aberdeen.

IN appearance veronal resembles trional; it is odourless, practically tasteless, and readily soluble in hot fluids. Chemically it is dimethyl-malonyl-urea: but though related to urea, it is not diuretic.⁽¹⁾

We have used this drug for some months in all forms of mental disease with very satisfactory results, and from our experience of veronal we have made the following observations:

1. For the insomnia of acute melancholia we have discarded

all other hypnotics in favour of veronal. It produces a natural sleep, does not disturb the appetite, and has no effect on the bodily weight. The dose requires regulating in much the same way as one would regulate the dose of a laxative in treating a case of constipation. An average dose in melancholia is from 8 to 15 grains, and we have not found it necessary to exceed the latter dose. If after a sleep of, say, eight hours the patient awakes still very sleepy, we cut off a grain or more from the succeeding dose.

It is essential to combat the insomnia of melancholia and more especially so at the beginning of the disease, as it is this symptom which tends to aggravate what Kraepelin has designated the "apprehensive depression" so characteristic of the affection. Paraldehyde, though an effectual hypnotic in melancholia, is a most nauseating drug, and we believe that in addition to its liability to disturb the appetite it tends to increase rather than diminish the apprehensiveness of the melancholic. Patients who have had both drugs administered to them much prefer veronal, and more than one patient has remarked on the "cheery feeling" with which he has awakened after a good night's sleep from veronal. Dr. Weiner (³) has observed that the sleep is indistinguishable from natural sleep, and the patient awakes feeling refreshed, and frequently speaking with enthusiasm.

The languor which may ensue after a large dose of veronal has the appearance of a true sleepiness and is quite different from the lassitude associated with a large dose of sulphonal.

2. To control the excitement of acute mania, we are in the habit of giving veronal in a dose of 15 grains, with an additional 10 to 15 grains after the lapse of an hour if no improvement results from the initial dose. As a rule, in cases where the motor excitement is long continued the dosage has to be gradually increased in order to be effectual, but we have not found it necessary to exceed an initial dose of 25 grains. The sedative effect of the drug is increased by alternating it with sulphonal or trional. The freedom of veronal from deleterious effects on the digestion and bodily weight (³) is of great advantage in cases of mania, especially where the drug has to be given over long periods.

3. In the motor excitement of general paralysis and *delirium tremens* the beneficial effect of veronal is most marked.

4. For the persistent restlessness of senile mania veronal is superior to sulphonal, and in this affection a small dose given three times a day is more potent than an ordinary dose given at one period.

5. Veronal is also efficacious in chronic cases where an exacerbation of excitement is directly due to the subjective vividness of a sensory hallucination.

6. In any case of insanity where a sedative is required, and where the patient refuses all manner of food necessitating the employment of the feeding-tube, veronal has the advantage of being much more easily administered through the tube than either sulphonal or trional.

7. We have observed muscular inco-ordination of the extremities in two cases of very acute mania after 50 grains of the drug had been administered during the course of two days. The inco-ordination was quite as marked as the same symptom sometimes observed after the administration of a large dose of sulphonal. It disappeared rapidly on the drug being discontinued, and was not associated with any alteration of the pulse or in the general appearance of the patient. It also differed from the inco-ordination associated with sulphonal in that there was not so much mental retardation accompanying it.

8. The urine has on all occasions presented no abnormality.

9. A roseola-like eruption was observed on the face and chest of one case after the initial dose. This symptom is apparently an idiosyncrasy, as it reappeared in this case whenever veronal was administered.

10. Veronal is reported to be a safe drug, and we administered it with salutary effect to a man suffering from the extreme restlessness associated with *delirium tremens* complicated with pulmonary congestion, a dilated heart, and marked multiple neuritis.

11. The chief objection to the use of veronal is its expense.

(¹) A. C. Jordan, *Brit. Med. Journ.*, March 5th, 1904.—(²) *Wien. med. Presse*, No. 24, 1903.—(³) *Annual Report*, E. Merck., 1903, p. 185.

Occasional Notes.

The Classification of Insane States in Revised Statistical Tables.

THE Statistical Table (No. IV) dealing with the classification of the forms of mental disorder is certainly by far the most important point of the revision.

This table will be taken to represent the highest and latest views of insanity held in this country, and it is intrinsically of the utmost value in affording the basis of a possible comparison of the forms of insanity, or the results of treatment, in different communities, or in the same community at different periods. The utmost consideration, therefore, should be given to insure the adoption of a table that shall be clear and stand the test of criticism and experience. The committee that has given such careful thought to it will welcome discussion on this point as a recognition of the importance and the difficulty of the task which they have so zealously attacked and so admirably overcome. This table, however, is worthy of the vigorous discussion that it has excited, since it may be described, without undue exaggeration, as the hub around which the others revolve.

Dr. Mercier, in the last number of this Journal, with convincing cogency, laid down the essential principles of a good classification, insisted on the necessity for its being easy of application to suit "all sorts and conditions of alienists," and demonstrated that the only possible classification at the present time must be based on "symptoms," qualified by the principle of subdivision by intensity of the symptoms.

Dr. Mercier, having pointed out the path that should be followed, straightway departs from it and constructs a table which would appear not to render it "easy" in practice for "any sort of alienist" to classify insanity.

Subacute insanity, for example, is divided into eight sub-classes, termed neurasthenic, depressed, suspicious, obsessed, etc. Now, several of these symptomatic states may co-exist in

the same case, and vary in their predominance from day to day. The sub-class in which a case would be placed would depend on the temporary condition of the patient, together with the bias of the alienist. There are eight sub-divisions given; and yet Dr. Mercier, like another Clive, must be astonished at his moderation; for there seems to be every reason that he should have added hysteric, hypochondriac, and many others, in the absence of which his table falls short of his chief principle of classification—of finding a place for every case.

Dr. Mercier apparently implies that the committee has erected melancholia, mania, etc., into "kinds" of insanity, or definite diseases. Now, the heading of the table distinctly describes these as "forms," and so accurate a philologist should recognise that "form" refers to contour and outward appearance as distinguished from structure, and so can only have a clinical observation significance and not a pathological one.

Diseases have long ceased to be regarded as due to special entities, and are universally recognised as ordinary physiological processes, whose excess or defect tends to abbreviate the individual vital cycle. Sutton has demonstrated that physiological processes that constitute disease in one class of animals may be advantageous and normal in another.

Normal mental phenomena are based on physiological changes in the brain, and in the above view of disease this must be true of the abnormal. Of the nature of these organic substrata ignorance practically prevails, and this should always be clearly stated in any statistics, to avoid misconceptions of expression such as that which Dr. Mercier has raised.

Until the exact site and nature of the organic changes accompanying specific abnormal mental phenomena are known, these symptoms obviously bear the nearest ascertainable relation to the pathologic condition, and cases thus symptomatically described would be distinctly recognisable whenever pathology comes to the aid of clinical observation.

Insanity, therefore, is a clinical term for the symptom, unsoundness of mind—a complex symptom of great variability; but its varieties admit of being grouped by the predominance of certain abnormal psychologic phenomena which must of necessity follow the grouping of normal psychology. This the Committee has practically done, although not quite

systematically, and with this Dr Mercier agrees for his primary divisions.

The primary divisions, therefore, should be into emotional, intellectual, volitional, and general psychological disorder, with states of defect, acquired and developmental.

In subdividing these primary classes, the Committee has taken the basis of time (recent and chronic), but Dr. Mercier prefers that of intensity of disorder (acute and subacute), and it would appear that both principles require recognition, and may be combined so as to avoid difficulty and error in classification. Recent cases may be subacute or practically chronic, while acute, intense disorder may occur in chronic conditions—*e.g.* of imbecility, epilepsy, general paralysis, etc. The subdivisions, therefore, should be into “recent and acute” and “subacute or chronic.”

The time element is as much a matter of clinical observation as the intensity of disorder, and requires expression also in those cases which pass from one state of insanity to another (circular). Similarly in idiocy, the time element in relation to development should be expressed in “congenital” and “acquired,” as well as the intensity in “idiocy” and “imbecility.”

Having thus classified all cases on a symptomatic basis, it would appear desirable to distinguish them into two primary classes :

(1) Those in which the pathological condition is unascertained.

(2) Those in which there is an associated pathological condition, or definitely related pathological condition.

The second division would, of course, be extended with the progress of pathological knowledge. The table I would suggest would take the following form, several groups coming under each of the three sub-divisions of the second class.

Under the subdivision of ascertained pathological relation to brain would come such groups as arrested development, microcephaly, general paralysis, etc. ; in the second group, epilepsy, etc. ; and in general bodily disease (somatic group), myxœdema, etc.

It might be desirable to adopt Dr. Mercier's suggestion of a separate set of headings for idiocy.

TABLE IV.
States of Mental Unsoundness.

	Pathological association unascertained.			With ascertained pathological relation														
				To brain.			To nervous system.			To bodily disease.								
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.						
I. Emotional states																		
1. Of depression																		
<i>a.</i> Acute and recent																		
<i>b.</i> Subacute or chronic																		
2. Of exaltation																		
<i>a.</i> Acute and recent																		
<i>b.</i> Subacute or chronic																		
II. Intellectual																		
1. Obsessional																		
2. Delusional																		
III. Volitional																		
1. Disordered control (moral, etc.)																		
2. Anergia (stupor)																		
<i>a.</i> Simple																		
<i>b.</i> Resistive																		
<i>c.</i> Exalted																		
<i>d.</i> Depressed																		
IV. General																		
1. Circular																		
2. Confusional																		
3. Dementia																		
<i>a.</i> Primary																		
<i>b.</i> Secondary																		
4. Idiocy																		
1. Acquired																		
<i>a.</i> Imbecility																		
<i>b.</i> Idiocy																		
2. Congenital																		
<i>a.</i> Imbecility																		
<i>b.</i> Idiocy																		

I have to apologise to the Statistical Committee for making suggestions which I ought to have submitted earlier. I think it right to express my dissent from the sub-divisions proposed by Dr. Mercier, which would not, I consider, give a basis that would accord with future pathological discoveries, and would render the task of classification very difficult. Indeed, in face of his table I fear that any sort of alienist would be in the condition of a man finding his way through a maze ending in a morass.

HENRY RAYNER.

The Disabilities of Alienist Physicians.

The growing number of medical men engaged in the treatment of mental diseases, due to the increase of asylums, renders it desirable to remind the specialty from time to time of the disabilities from which it suffers, legally and socially.

These disabilities only come into operation when the physician retires from his connection with the asylum. Owing to the large size of these institutions and the consequent arduous nature of the work, the number of men who retire at a comparatively early age, still being capable of valuable work, is steadily increasing, and it is probably desirable that it should increase still further.

These physicians, possessing a large amount of valuable experience, find themselves greatly limited in applying it to the service of the community in two directions. In the first place, a large proportion of the public, owing to its prejudice against insanity, avoids, until compelled by the direst necessity, any approach to a physician who is known to have had experience in treating it. To avoid doing so, they will often resort to the treatment of persons whose knowledge of insanity is practically *nil*, and who practise as specialists on the strength of a certificate from some medical man or hospital that they have learned massage, Swedish drill, medical electricity, Weir-Mitchelling, etc., in endless variety. These quasi-quacks advertise for patients, parading their almost worthless "certificates of proficiency" as if they were on an equality with medical diplomas.

If a medical man is consulted, care is taken, in the large majority of cases, that he is not one whose name is associated with mental diseases; it is only in the last resort, when means are exhausted and the mental breakdown is complete that an alienist is resorted to.

The position of the specialty in relation to the public and the profession is almost identical with that of the ophthalmic specialty fifty or sixty years ago, when eye quacks abounded, and every surgeon felt himself justified in spoiling a hatful of eyes in qualifying as an eye surgeon.

This disability will, of course, continue until the public and

the profession are educated into the recognition that the treatment of mental disease is not limited to Weir-Mitchelling, etc., with or without a course of narcotics, in a nursing home, or the alternative of travelling abroad.

The more important legal disability of alienists is a distinct injustice, however much we may have become habituated to it. The medical man who has gained experience in nervous, lung, or any other special disease may start his hospital or sanatorium and reap the benefit of his special qualification without let or hindrance. The alienist physician, on the contrary, is limited to a single patient, being in this respect placed on a level with every layman in the country.

In some few instances, both of laymen and medical men, a second and even a third case may be taken, "if the friends of the first case do not object."

This concession is better than none, but in the case of the experienced physician, at least, the basis might be taken that it was to the advantage, not only of the one patient, but of all three, to have specially skilled attendance, in face of the fact that so many cases fitted for home care are now driven to comparatively unskilled treatment.

The late lunacy legislation in its attempt to extinguish licensed houses is responsible for this infringement of the liberty of the medical subject.

Much fair and a large amount of unfair criticism has been advanced against private asylums, but there can be little doubt that the best private asylum has advantages in treatment which it is difficult, if not impossible, for a public institution to equal; and we have to remember that private asylums have often led the way in reforms and improvements.

The legal mistake in regard to private asylums consisted in the license to treat the insane being practically granted to the house, an obvious absurdity, unless the house is supposed to be endowed with special curative qualities, like the sacred wells and springs of mediæval therapeutics.

The legal restriction of medical men, however experienced in the care of the insane, to a single case must be based on the ground of the danger of dishonesty, since in institutions they are allowed to treat hundreds of patients.

If this is the case—and there is no alternative reason—it is singular that in this free trade in single cases the law has made

no provision to exclude ex-convicts and other persons of defective character from entering into the business.

The dishonesty, moreover, might be as great with a single case as with a larger number, and the legal position appears therefore to be utterly illogical.

That anyone wishing to undertake the treatment of insane persons for payment should be called on to prove that he is fitted for the work by experience and character, and possesses the means for carrying out such treatment, would be right and proper; only after such proof should a license be granted, and only to persons who could give such guarantees. As the law stands it is a gross interference with the liberty of the medical person to practise his profession in the way that is best for him and the community. The fact that this intolerable injustice, which was imposed with contumely and insult, is borne without protest is strong evidence that our profession is so wanting in *esprit de corps* and common national feeling, that it has tamely submitted to a wanton aggression on that supposed British palladium, the liberty of the subject.

The Pathological Laboratory and the London County Council.

The pathological laboratory of the London County Council has done so much good work, and is capable of doing so much more, that any suggestion which may limit its usefulness demands earnest consideration.

A contemporary has recently suggested that the laboratory should be moved to London, in order that there should be scores of workers where there are now only a few. It may be conceded that a research laboratory in London might be a most desirable thing in itself, and we should be pleased to see it established, in addition to the Claybury Laboratory for morbid anatomical research in connection with clinical observation.

The experience of the laboratory of the Scottish asylums in Edinburgh points to the desirability of close connexion with a large asylum. This laboratory was first established in Edinburgh near the medical schools and quite away from any asylum, but it soon became evident that this was a mistake, and it was moved close to the Morningside Asylum, which is accessible

by tramway from Edinburgh. This arrangement has been found much more satisfactory.

The divorce of "pathological" inquiry from clinical observation is a mistake. "Pathology" thus divorced falls nearly to the level of guesswork. A careful examination of the refuse heap of a city would probably yield more information on the customs of its inhabitants than a "pathological" examination alone would give of the process of a disease.

The necessity for the close co-operation of the clinician and pathologist makes it a matter for regret that a medical correspondent of the *Times* should have apparently attempted to separate the clinical from the pathological workers at Claybury, by taxing the former with a want of interest and activity. This charge was very promptly refuted by Dr. Robert Jones, who pointed out that the clinical workers, being fully engaged and occupied during the day in their routine work, could only engage in pathological work in the evening—their only time of rest from duty—when the laboratory was closed.

The combination of clinical and pathological work on the Continent is provided for on a much more liberal scale by the great strength of the medical staff. For example, in Kraepelin's new clinic, of a few hundred beds, no less than fourteen physicians are employed. A similarly officered institution in Great Britain may be expected coincidentally with the occurrence of the Greek Kalends.

The usefulness of the laboratory, we venture to suggest, might be greatly extended, without removal to London, with the consequent clinical divorce, in several ways—firstly, as was suggested, by giving the Claybury staff opportunities of evening work; secondly, by the County Council encouraging two or three members of the staff of the other asylums to work at Claybury for various periods, according to the recommendation of the director of the laboratory; and thirdly, by assisting a certain number of the zealous workers whom our contemporary describes as existing in London, by means of railway passes to Claybury, also for periods to be decided by Dr. Mott.

The additional cost would not be very great, and would probably not bear a larger proportion to the whole cost of the laboratory ship than the traditional pennyworth of gas product.

Belgian Opinion on Belgian Asylums.

Elsewhere we quote (see Notes and News) at considerable length a report on Belgian asylums by Dr. Lentz, who occupies in Belgium a position similar to that of an English Lunacy Commissioner.

His communication is interesting for what it does *not*, as well as for what it does, contain. It shows how utterly worthless is outside inspection of monastic institutions. Inspectors who are either afraid to describe what they see, or powerless to bring about reform of what they know to be wrong, do much more harm than good. They help to hypnotise into even deeper trance a public opinion that is already somnolent. They secure the continuance and the increase of abuses. Dr. Lentz refers to the discreditable defence of antique procedures offered at the Antwerp Conference by medical superintendents sometimes living and practising an hour's distance by express train from the institutions whose management they championed. He deprecates the bluntness with which a Teutonic Knight of the Holy Ghost (in Heine's sense) attacked the methods of barbarism, but he forgets to refer to that gentleman's indignation when he found a pair of shackles in a patient's bed in an Antwerp asylum. One of the most instructive items in the report of the Conference is a defence of the present Belgian system. A physician to an asylum, discoursing on the therapeutic value and the necessity of Restraint, remarks that in his institution, containing, as we understand, about five hundred patients, there are about a hundred who are of dirty habits, and that of these it is not necessary to shackle more than five, or at most six, in bed! An Englishman feels unable to criticise a system which leads to an asylum physician making such a boast.

Doctors not Disqualified.

In another place (see Notes and News) we describe the most recent proceedings in connection with the Youghal Auxiliary Asylum that have come to our knowledge. We are not well supplied with items of information on this subject—a fact which speaks for itself, so we have to depend on the *British*

Medical Journal in a not very up-to-date article. It is good of the ecclesiastics who rule the asylums in the South of Ireland to graciously admit that a man being a doctor does not disqualify him from being the manager of a lunatic asylum. Whether medical qualifications are essential or not for this office is a matter on which existing law and ecclesiastical opinion appear to differ, but that is perhaps of little consequence. The excessive frankness of the southern bishops is certainly advantageous, as it makes clear the line that will be taken all through Ireland in the early future, but tactically we doubt its wisdom. The committees are almost everywhere striving to destroy medical control and discredit medical opinion, and they are playing the game of the church so successfully (though often we believe unconsciously) that she would be wiser (we say it with all reverence) to lie by till she is presently called upon to solve the knots that local self-government is busy tying.

The Monaghan Scandal.

It is our painful duty in Notes and News to record from the files of a local newspaper, dealing with the affairs of the Monaghan Asylum, as disgraceful a story of attempted misuse of power as we have ever had to comment upon. We are familiar with the desire to get rid of medical superintendents in Irish asylums in favour of other methods of management. If nothing else were in view save the happiness of these officers themselves, we could only wish that the prophecy of their would-be supplanters would soon come true, and that there would shortly be no more doctors in Irish asylums. The records of medieval times and even of modern times in some foreign countries tell us, however, what this would mean for the patients, who, after all, though it is often forgotten, are the chief objects for which asylums are built and maintained. But it would not appear that in Monaghan the end desired at present is to get rid of the medical staff in favour of clerical managers, lay or ecclesiastic. The end is more ignoble, being a purely personal one, and the means adopted to attain it are of corresponding baseness. The unfortunate medical superin-

tendent is accused of defective sight, and after a long series of petty persecutions, an attempt is made to force upon him a compulsory ophthalmoscopic examination, with a view to worrying him out of his office. It is true this barbarous motion was defeated by the smallest possible majority. It is also true, and it is probably far more to the purpose, that the Catholic Bishop of the diocese, who is a member of the committee, spoke like a gentleman and a Christian in favour of an old and excellent public servant, and did not hesitate to denounce the libellous nature of the charges made.

Those who publicly take such action in an asylum committee, knowing that their remarks will appear in all the local papers, can have little knowledge or care of what harm they do to the discipline of the institution, or (consequently) to the welfare of those whom they are bound to protect. But humanity is a small consideration when weighed against the vulgar insolence of the committee-man feeling his power—

“Dressed in a little brief authority.”

The officer attacked on this occasion has been, as we understand, in his present office for more than eighteen years, and has spent a lifetime in the specialty. Scotch committees sometimes (rarely) heckle their medical officers; English committees are not rarely a trifle vulgar and even occasionally offensive; but nowhere, except among the warm-hearted Irish, would such barbarism to an old and trusty officer be possible. Kindness to the ailing and worn-out (we are, by the way, happy to say that our Monaghan brother is neither one nor the other) is certainly universal on this side the Channel. How many English superintendents will remember the genial warning from their Committee not to work too hard nor to keep too close to their exacting task; and how many even the kindly insistence on an occasional holiday when their anxious and onerous duties have made them seem a little fagged. How different is the feeling in Ireland!

The Retirement of Dr. White.

The retirement of Dr. Ernest White, the ex-President of the Medico-Psychological Association, from the post of super-

intendent of the City of London Asylum, cannot pass without an expression, on behalf of the Association, of the hope that he may long enjoy the comparative rest which relief from the heavy burden of responsibility he now bears will afford him. This rest, we may be assured, will be employed in active usefulness.

The liberal terms of superannuation granted by that liberal body, the Corporation of London, have been thoroughly deserved. They offer an encouragement to other members of the specialty, and an example to other governing bodies to deal handsomely with those who have served them well.

Part II.—Reviews.

The Fifty-eighth Report of the English Commissioners in Lunacy, June, 1904.

This last issued Report is characterised by the special interest and importance of certain of its topics. Pre-eminent in this respect is the consideration and interpretation of the figures representing the growth in number of the notified insane. Further reference to this will be made below under statistical tables.

The increasing size of county asylums.—In assenting to the additions to asylums already large, the Commissioners have almost invariably expressed the reluctance with which their sanction was given. They, this year, in strong terms, renew their protest against this modern tendency. They urge grave reasons against it and quote figures which go far to dispose of the validity of any economical advantage—the sole justification for the leviathan-like proportions which are being assumed in increasing frequency by asylums. In deprecating an asylum containing so large a number as 2000—not to mention 2500—beds, special stress is laid upon the inability of the Medical Superintendent to exercise his special experience in the treatment of mental disease with any individuality. He can only administer, and in the largest of all asylums, even administration has to be delegated, owing to their dimensions passing beyond the visual field of the Master's eye. We fully share the Board's disbelief in the wisdom of erecting these huge new asylums, and still more so in the policy adopted by some counties of almost indefinitely increasing a well-designed asylum of moderate dimensions. To us appears not a little anomalous the facility with which the Home Secretary's consent to these enlargements, and the erection of new ones can be obtained, and the small extent to which the law has vested effective control of these matters in the Commissioners. At the same time, we are not very sanguine that economy

would result by the erection of asylums of simpler form and possibly cheaper construction for the aged and harmless chronic patients. We say *possibly*, because we are fully alive to the fact that the Committees of several of the more recently erected asylums have insisted on the plainest and cheapest architecture. No matter for what class of patient a building may be erected, there is a limit of soundness of construction below which, in justice to posterity, it would be improper to go, remembering that the cost is usually defrayed out of borrowed moneys repayable in sixty years; and we believe that in several recent instances this limit has been reached by Committees in their struggle for economy. Then in respect of maintenance, the classification of the insane into those that require a more expensive treatment and those for whom cheaper methods suffice, and the housing of these classes in separate asylums, surely can only result in a maintenance rate lower in the one by an amount corresponding to an increase in the other.

The greater prevalence of dysentery and phthisis in the larger as compared with the smaller asylums is also adduced by the Commissioners as evidence against very large institutions. While we agree with the view they take of the explanation of such greater prevalence, we venture to urge caution in reposing too much reliance on figures so simply contrasted. It is often the case that the largest asylums serve the most densely populated areas whose inhabitants live under conditions which cause them to be predisposed to these diseases before they are admitted to the asylum. We believe that, when constructing new asylums, in the extension of the villa principle, which is now making considerable headway, lies the solution of many of the disabilities of large asylums; but in saying that we at the same time disclaim all sympathy with the very large dimensions to which some half dozen have attained.

Temporary buildings.—Several pages of the Report are devoted to a consideration of the circumstances under which this form of accommodation still exists in ten asylums, in six of which the Commissioners are able to report that steps for either the discontinuance of their use or their replacement by others have been decided upon.

COUNTY AND BOROUGH ASYLUMS.

By the opening of five new asylums—the Talgarth Asylum for the counties of Brecon and Radnor, the East Sussex Asylum for the County Borough of Croydon, the County Borough Asylum at Canterbury, and the Ewell Epileptic Colony for the County of London—the number of these institutions, which on January 1st, 1903, was 82, has been raised to 87. The new East Sussex Asylum presents several special features, notably a detached acute hospital, a children's block for idiots and imbeciles, and four villas. The Ewell Colony is the first asylum provided by the rates which has been established in this country on the colony system, and is for the separate and special treatment of insane epileptics. The Commissioners state that the general condition and management of the county and borough asylums continue to be, with but very few exceptions, entirely satisfactory.

Number of patients resident in these county and borough asylums.—Upon the year there was an increase of as many as 2540, less, however, by 1209 than that for the previous year. Of the 84,549 patients on their books on January 1st, 1904, 2193 are described as of the private class, being an increase of 224 over the corresponding figure for the year before. We venture to reiterate our suggestion that it would be of decided interest and value to state the number of these cases which are classified as private patients in virtue of the fact that they pay the bare maintenance rate of the pauper patients in that particular asylum.

Post-mortem examinations.—As usual, considerable stress is laid upon the difference existing in various asylums between the proportions of these examinations to the number of deaths. "Variation in practice" is the expression used; but the value and safeguard afforded by these examinations is so patent that we believe there can be very few superintendents who would allow the opportunity to make them go by, and that they are not made is explained by a written objection from the friends having been received. The present form of death notice might perhaps be modified to show, under the heading as to whether or not a *post-mortem* examination has been made, the reason why it was omitted.

The murder of an attendant by a patient is chronicled and illustrates in a terribly vivid way the dangerous nature of asylum service. Where the death of a member of the staff occurs in the exercise of his duties, the public most assuredly owes a pension to the widow, and, up to a certain age, to the children also.

Alterations, additions, and improvements.—As, perhaps, the most interesting of these may be mentioned the enlargement of Garlands Asylum by the erection of special accommodation for the reception of patients of the sick and infirm and recent and acute classes; the adoption of the "Desrumaux" system of water-softening at the Durham Asylum, and the erection at Glamorgan Asylum of verandas for the treatment of phthisical patients.

New asylums in course of erection, sanctioned or approved.—Mention is made of such in connection with Newport and York, and the counties of Essex and Leicestershire.

Insufficiency of asylum accommodation is said to exist for the counties of Durham, Glamorgan, Kent, and London. The problem in the housing of its insane which the last named county has to face is emphasised by the Commissioners' statement that they have felt it their duty to urge the necessity for immediate steps to be taken towards the erection of *at least* an eleventh asylum. The foundations for the county's tenth asylum (for 2000 patients) have just been completed.

The weekly maintenance rate shows an increase of 1½d.

Zymotic diseases.—Influenza, scarlet fever, erysipelas, enteric fever, dysentery, tuberculosis, and diphtheria (two sporadic cases) are those reported as having furnished instances.

Enteric fever.—The record of enteric fever is said to contrast favourably with that of recent years, and to serve to bring into greater prominence the prevalence of the allied disorder—dysentery.

Dysentery and diarrhoea.—Fifty-four asylums registered cases of these disorders, eight asylums dysentery alone, thirteen asylum

diarrhoea alone, whilst in twelve asylums no attacks of either affection were recorded among the patients. Some interesting particulars and tabulated information is given in respect of certain of the asylums. To the form of Register of these cases now kept in every asylum we should like to suggest the addition of a column to secure the inclusion of cases of ulcerative colitis brought to light at *post-mortem* examination, and whose existence during life was not diagnosed. Our experience leads us to think that an appreciable number of such instances occur.

Tuberculosis.—In alluding to the Table of Mortality statistics of tuberculosis, it is mentioned that it is compiled from the *annual* returns made to the Board's office, and recognition is made that it of course fails to include cases of "latent" phthisis in the insane, which would only be revealed on *post-mortem* examination. We have reason to think that it is the custom in very many asylums to fill in the death-notice as early as possible, regardless whether the autopsy has been completed. While we are aware of certain good reasons for this, we think it a pity that the forty-eight hours' limit wherein to despatch these notices is not taken greater advantage of, and that where possible such despatch should be deferred until the *post-mortem* examination has been made. By such a procedure the statement of death is likely to be complete and accurate. Apart from this, the Table in question would be more accurate if compiled from the statements of death returned with each death to the Commissioners.

Registered hospitals.—The inadequacy of the number of these is again pointed out, and a tribute paid to their great utility and to the satisfactory manner in which their medical functions are discharged. The completion of an Acute Hospital in connection with Cheadle Hospital is recorded.

Institutions for idiots, State and criminal institutions, licensed houses, single patients, and lunatics in workhouses.—The remarks made under these headings do not appear this year to call for special comment here.

Statistical tables.—Notified lunatics numbered, on January 1st, 1904, 117,199, being 3235 in excess of the same number on the same day in 1903. This increase exceeded the annual average increase in the preceding ten years by 821, and that in the preceding five years by 837.

Ratio of the insane to the population.—The above aggregate gives a ratio per 10,000 of the total population of 34·71 insane, or 1 in every 288 persons. The corresponding ratio for the previous year was 34·14, over which the increase of the current year's ratio is 1·7 per cent. The total increase in this ratio for the past ten years has been 13·1 per cent. A chart dealing with years 1859–1904 is supplied by which it is patent that the increase in the pauper class has been a fairly uniform one, while the corresponding tracing for the private class indicates a steady rise to the year 1879, followed by a steady fall to 1899, since when it has again been rising.

Ratio of admissions.—Excluding idiot establishments and admissions due to transfers and re-admissions due to operation of law, there were admitted during 1903 into single care and institutions for the insane 22,217 patients, of whom 82·6 per cent. were "first" admissions. This represents a proportion of 6·66 per 10,000 of the population, or 5·50 for

those admitted for the first time. The former ratio contrasts with 6·93 for the previous year.

Ratio of increase of insanity.—We last year commented upon the absence of any direct statement of opinion upon the vexed—but so intensely interesting and important—question as to the existence or not of an actual *increase of insanity* among the population. We tabulated figures culled from the Commissioners' Blue Books accentuating the increase in the ratio of the admissions æt. 65 and upwards to the population, and we suggested the instructiveness of similar figures worked out for other age periods, such as under 25, 25–44, and 45–64. We ventured to add that—

“ There can be no question that if, in working out these figures and proportions, first attack cases were separated from those not stated to be first attack, it would be possible to speak much more positively on this vexed question as to whether insanity among the general population is really increasing.”

The Commissioners' Report this year includes a masterly analysis of this problem and a most important deduction is made. They take as a basis the Census returns for 1891 and 1901, during which decade the rate of increase in the population generally was 12·2 *per cent.*, and that of the insane community, known to the Board, was 24·4. But the much more important comparison of the ratios, for the years 1891 and 1901, of insane to population shows an increase in the ratio of only 10·9 *per cent.*

Two very valuable tables are appended, one differentiating the insane admissions into first attack and not first attack cases, and a second separating, for the years 1891 and 1901, the population, the number of patients resident, and the average annual number of patients admitted, into two groups: (a) those falling between the ages 20–54 and (b) those æt. 55 and upwards, and it is when the analysis is pressed home in relation to these age-periods that the interest of the question really develops. Taking the first age-period and contrasting the *ratios of the insane to the population* at the beginning and end of the decade 1891–1901, the percentage increase during the ten years of the second ratio over the first was, 12 *per cent.* in the case of males and 10 *per cent.* in the case of females. An even lower rate obtains on comparison of the *admissions*, which show a relative increase (of the ratio to the population) of 4·79 *per cent.* for males and 3·21 *per cent.* for females.

At the age period 55 years and upwards the corresponding percentage increase was as much as 19·8 for males and 21·8 for females in reference to patients resident, and as regards average admissions the corresponding figures for the two sexes are 21·6 and 18·19.

These facts appear to justify the inference that “as regards those who were cared for in asylums, hospitals, and licensed houses, the rate of increase in the numbers, both of those in residence and those admitted, when contrasted with the total number of persons living at each term, has been much smaller amongst those who are of ages 20–54 than amongst those above the latter age. Indeed, if comparison with the actual rate of increase of the population in the ten years be permissible, the rate of increase of the ratio of the insane to population is seen to be *below* the foregoing rate in the younger group, but *above* it in the older. It may therefore be inferred that the growth of insanity amongst those

of the community upon whom its burden would most be felt is really lower than the rate of growth in population at the same period of life ; and that it is only when that term is past that a rate of increase in excess of that of the population is to be found."

The importance of these deductions is of the first magnitude. While desiring to be acquitted of anything in the nature of a captious frame of mind, we would venture, in the interest of accuracy and in order to cut away the falsifying effect of the inclusion of relapsing cases upon this intensely important question, to plead for the corresponding percentages for average admissions, to be worked out for "first attack" cases only, in relation to these two age-periods. The national mental health can then be gauged with a degree of accuracy that has hitherto been unattainable.

Recovery and death rates.—During the past thirty years in connection with the former, great fluctuations have been noticed. Bearing in mind the accepted mode of attempting to express the recovery rate, we are not surprised at such. On the other hand, any variations in the death rate have ranged through very narrow limits. The ratio (per 1000) of the number of deaths of patients in insane institutions to the number of patients living in these institutions is contrasted with the ratio (per 1000) of deaths in the whole population, to the whole population, and brings into strong relief how much the former ratio preponderates, indicating, it is said, the physical inferiority of the insane as a class. But before any safe deductions can be made from such a comparison we would urge the necessity of confining comparisons to corresponding age-periods.

Causes of insanity.—Again, it must be said that the tables dealing with these bring out nothing to which attention has not been frequently drawn before. The difficulties, we know, are very great ; and previous reports show how far from satisfied the Commissioners are that any reliable inferences can be drawn from the figures.

A most interesting Report concludes with an important statement concerning the increase in the duties of the Board and the urgent necessity for addition to the number of Commissioners. While their numbers were generously sufficient in 1845 they feel that they are not so in 1904.

Forty-sixth Annual Report of the General Board of Commissioners in Lunacy for Scotland, 1904.

When we read in the daily paper of December 1st last the report of Lord Rosebery's after-dinner speech at the 240th St. Andrew's Day Festival of the Royal Scottish Incorporation at the Holborn Restaurant, we felt sure that he must have been dipping into the last Lunacy Report for Scotland, so jauntily optimistic was his tone ; but we are of uncertain mind on this point, which finds no specific mention in his remarks, and are disposed on further consideration to think that possibly the whisky and haggis may have had something to do with the rosinness of the words which he addressed to the assembly. There was no doubt in his mind at all as to the answer of the question, "Stands Scotland where she did?" and accordingly he says : "I think that the

unhesitating answer must be that Scotland stands much better than she did. Our prosperity is the marvel of the world. . . . We have our share of the good things of this life," more than our share, in the opinion of "some envious spirits—none of them hailing from the north of the Tweed." Everything, to all appearance, was well with Scotland—that too, let it be marked, under a Government which to the noble lord and his party is intolerable and utterly inefficient. And yet, what happened in the five days following that celebration? In his speech at Glasgow we find that his tone has, by comparison, become most gloomily pessimistic. ". . . consider how it is with us at the heart of the Empire. We have still with us, in number, which may well alarm every thoughtful man, poverty, destitution, and crime, and drink, which lies so much at the root of all three," and so on. No fresh Blue Book had, so far as we are aware, appeared in the interval, and we can only conjecture that his host must have omitted the haggis and the dram from the menu.

The improvement in the mental health which Scotland's Lunacy Report for 1903 indicates is not restricted to that division of the Kingdom alone, for evidences of it are also forthcoming in the Reports of England and Ireland, and it is in England that it is most pronounced. The rate of occurring insanity in this and the preceding year per million of population is as follows:—

	1902.	1903.	Decrease in 1903.
United Kingdom	601	578	23
England and Wales	576	550	26
Scotland	628	607	21
Ireland	762	755	7

There must, of course, be some explanation for this very gratifying state of affairs, but what that is it is by no means easy to say. The year under review was not marked, as far as we are aware, by any outstanding characteristic, industrial, social or political, and one can only hope that the marked diminution of occurring lunacy may prove to be an indication that we have at last reached "the limit of our productivity" in the matter of insanity. "'Tis a consummation devoutly to be wished," but whether it is likely to be realised only the years to come can show. Still, any change, however slight, in the direction of betterment is heartily welcome.

The changes during the year have resulted in an increase in the total number of registered lunatics, amounting in the case of private patients to 109, and in the case of pauper lunatics to 96, and it is pointed out that the proportion per 10,000 of population of pauper lunatics in establishments fell during the year from 250 to 249, and that such a fall has not been recorded since 1883. Special attention is called to the exceptionally small increase of pauper patients and the large increase of private patients in establishments. The small increase of 96 pauper patients, the Commissioners say, "may prove to be nothing more than a passing phenomenon, but it is worthy of record as being possibly a symptom that the production, at any rate of that part of pauper lunacy which has hitherto grown out of proportion to the increase of population, may be at last reaching a point beyond which, though fluctuations may occur from year to year, it will not materially rise. The small increase in the number of pauper patients in establish-

ments in 1903 has, however, been accompanied by a no less remarkable rise in the number of private patients in establishments. The increase of these during the past year has amounted to 111, which is much beyond the increase recorded in any previous year with which our statistics deal. This large rise is in all likelihood connected to some extent with the smallness of the rise among pauper patients, but the connection between the two facts is not easy to establish. It has not resulted from any unusual number of patients already in asylums being transferred from the pauper to the private class, and there are other considerations which render conclusions on the point difficult." To what extent these results depend on the "considerable number of (private) patients drawn from England and Ireland" the Commissioners do not say. It has, we know, been said that the reason for the fact that the maximum of serious crime in Scotland is attained in August is to be found in the exodus of the Southrons to the grouse moors of the North, and a similar, and equally remunerative, "dumping" of English lunatics may go some way to explain that apparent higher proportion of occurring insanity north of the Tweed, and help to make England's returns more favourable than they really are.

There is an impression that the class of cases now sent for treatment in asylums presents a lessening prospect of recovery, but this is hardly borne out by the statistics of this Report, for the recovery rate in almost all classes of establishments shows a perceptible improvement in the past four years as compared with the two preceding five-year periods. Improved methods of treatment may be partly responsible for this, or it may indicate an increasing recuperative capacity on the part of the race. But, on the other hand, the tendency of the death-rate is in the opposite direction; for this works out at about 9 *per cent.* of the average number resident for the past four years, compared with 8.5 and 8.2 in the five-year periods ending 1894 and 1899, and part of this increase is apparently due (how much of it is to be credited to the English importation it is not easy to say) to increasing general paralysis, which is responsible for 22.8 *per cent.* of the male and 5 *per cent.* of the female deaths as compared with 22.4 and 4.9 in the preceding quinquenniad.

The mortality returns evidence increasing care in dealing with tubercular diseases, for the percentage of deaths from "consumption" to total deaths has fallen in this year to 12.5, the rate for 1902 being 14.1. Indeed, the lowness of this rate, comparing as it does with 17.4 in county and borough asylums in England and Wales, and with 26.5 in the district asylums of Ireland, is a feature which reflects credit upon the medical administration of the Scottish establishments, even allowing for the fact that there are in Scotland no asylums with over 1,000 resident patients, and in which experience in England shows that the phthisis mortality is highest.

The year under review is characterised by one unfavourable feature—the number of deaths from suicide. These were no fewer than 9, as compared with 3 in 1902. The rate per 10,000 of the daily average number of patients resident in Royal and district asylums in Scotland is 7.66, while that for county and borough asylums in England and Wales is only 2.05, and that for the district asylums in Ireland is 1.68. The occurrence of such a high proportion of these deaths is most likely

an accident of this particular year, and not to be attributed to any material change in the policy of extended freedom, which is, by comparison with asylums in the other divisions of the kingdom, a feature of Scottish administration, and it is unlikely that it will be repeated in future years.

There is a section covering eleven pages of this Report dealing exhaustively with the question of asylum farms and the employment of patients in outdoor work, which is well worth the attention of asylum administrators in England, where the state of affairs falls very far short of the ideal of the Scottish Commissioners. The English Commissioners' standard is a beggarly tenth of an acre per patient in asylums, whereas their Scottish *confrères* think half an acre of *arable* land is for most asylums not more than "amply sufficient." The magnitude of the lunacy question in England, when one goes into figures, assumes really alarming proportions. If English pauper lunacy were run on Scottish lines, the result would be that those maintained in asylums would be less by 5525, and those in workhouses by 9245, while those in private dwellings would be increased by 14,770, and the saving effected on the reduced number of asylum inmates alone would amount in maintenance and rent to something like £155,000 a year. On the other hand, however, England would have to face a further capital expenditure of about three millions to provide the Scottish standard of half an acre of land per asylum inmate.

The Statistical Committee of our Association has been devoting much time and labour to the modernising of the Association's tables, and is earnestly desirous that means should be devised whereby uniformity of returns might be assured for all three divisions of the kingdom; and, though some of the members have been unable to see eye to eye with the committee, their recommendations have had a generally cordial reception. Few will, we think, deny that the movement in the direction of co-ordination of statistics is one which ought to help us in arriving at a better understanding of the conditions which underlie mental defect or breakdown, and it is only in this way that any ultimate benefit is to be looked for. The Scottish Lunacy Report has, and always has had, an outstanding individuality quite its own, but there is no reason why this should not be preserved, and means at the same time be found for supplying additional information which would be of inestimable national benefit. The Scottish lunacy statistics have a real interest, reaching far beyond the Tweed; and though, as Lord Rosebery puts it, a Scottish minority, however small it may be, is something very "dour to tackle," it is sincerely to be hoped that our Association, in the aims and objects it has in view, may secure the cordial co-operation and valued assistance of the Scottish as well as of the English and Irish Commissioners.

Fifty-third Report of the Inspectors of Lunatics (Ireland): for the Year ending December 31st, 1903.

The salient statistical facts revealed in the Report are as follows:

1. At the close of the year 1903 there were 22,794 insane patients

under care in Ireland, showing an increase of 656 over the previous year, when there was an increase of 508 over the number under care at the close of 1901, an advance of 148, and 104 above the average of the past ten years, which was 552.

2. The numbers in district asylums increased by 514, those in private asylums by 28, and those in workhouses by 121.

3. There was an increase of 3 in total admissions to district asylums. The first admissions decreased by 48 as compared with the previous year, while the re-admissions increased by 51.

4. The percentage of recoveries was 36·7 on the admissions, or 2·2 higher than in 1902.

5. The percentage of deaths on daily average was 7·8, practically the same as the average for the past ten years, which was 7·7. The number of autopsies is decreasing, 288 *post mortems* only having been held in 1903 as compared with 311 in the previous year. Seven fatal casualties took place in district asylums—3 from suicide, 3 from misadventure, and 1 from homicide. One suicide took place in a private asylum, the only fatal casualty recorded in these institutions.

6. The average cost per patient, calculated on the gross expenditure, was £30 9s. 7d., and the net average cost of maintenance, exclusive of loan repayments, was £23 16s. 1d., or 10s. 2d. higher than in the previous year. The total expenditure on the maintenance of the insane in Ireland in the year 1903-1904 was £547,088 os. 1d. for an average of 17,930 patients.

There is but little here demanding any special notice. Perhaps the chief item of interest is that the number of insane in workhouses, which had been decreasing at the rate of 125 per annum from 1899, during 1903 increased by 121. No explanation of this is attempted. The admissions from workhouses to asylums, on the other hand, fell from 879 in 1902 to 810 in 1903, or from a percentage of 22·27 to 20·51 of the total admissions. This would partially account for an increased accumulation in workhouses.

It will be observed that the number of total admissions to district asylums increased only by 3, while in the previous year the increase was 375, quite an unprecedented figure. This is only another of the unaccountable vagaries so frequently noticeable in lunacy statistics. The pendulum swings now to one side, now to another! that is all we can say. The cause is hidden from our eyes.

The deaths from consumption numbered 368 out of a total of 1389, or 26·5 *per cent.*, the average for the preceding ten years being 28·1. There has, therefore, been a decided fall in the mortality from this disease, which is so far satisfactory. Fifty-two deaths were due to general paralysis, a proportion of 3·7 *per cent.*, the average percentage for the previous ten years being 3·5. The mortality from this cause may be, therefore, regarded as stationary. Epilepsy claimed exactly the same number of victims as general paralysis, *viz.* 52, or 3·7 *per cent.*, a fall from the ten-year average, which was all but 5 *per cent.*

The sanitary condition of some of the district asylums does not appear to be satisfactory, judging from the amount of zymotic disease which has occurred in them. In Ballinasloe, for instance, several cases of dysentery, enteric fever, erysipelas, febricula, diarrhoea, and influenza

were recorded, with some fatalities. At Castlebar an outbreak of enteric fever occurred, the probable cause of which was the proximity of a marsh into which the drainage of the asylum apparently delivers. The inspectors have called attention to this reprehensible condition of things on previous occasions. It should be put an end to, if necessary by the exercise of compulsory powers on the part of the Lunacy Department, without any further procrastination.

Dysentery continues to be prevalent in Downpatrick Asylum, and some cases occurred in the Richmond and Cork Asylums. At Ennis there was an outbreak of enteric fever, where "the drainage and water supply were both open to grave suspicion." The death rate in Londonderry Asylum was very high, the highest on record in district asylums, 13·3 on the daily average. Here no deaths were due to zymotic disease, but one third of the male mortality was due to phthisis, and pneumonia carried off 17 female patients. Overcrowding, no doubt, if not the principal, is assuredly a contributory, cause to most of these outbreaks of preventable disease, and extension of accommodation being an expensive proceeding, the remedy is as a rule only tardily applied. But there is no excuse for the obviously insanitary conditions, such as defective drainage and polluted water supply, not being at once effectively dealt with. It is a sad necessity that patients should have to be sent into asylums at all, but to consign them at the same time to a potential death-trap is nothing less than a refinement of cruelty deserving of the severest condemnation.

The Reports on the condition of the insane in workhouses are for the most part unsavoury reading, and the good-natured flattery manifested in imputing to guardians "every desire to treat this afflicted class humanely" seems, particularly after years of expostulation, a little out of place, when taken in connection with the accounts of the actual condition of things in these abodes of uncleanness. There is only one remedy for the existing state of things: clear out workhouses of all their insane patients and transfer them to asylums, and abolish the inferno of the "idiot ward."

Blue Books are not in the nature of things a department of literature in which anything novel or sensational is to be looked for; and Irish Lunacy Reports are no exception to the rule. The atmosphere which pervades them can hardly be called exhilarating, and the reviewer of these documents as he scans the annually reiterated facts and figures, characterised as they are by a deadly monotony, finds his task destitute of any expansive or stimulating element, and himself more or less "cribbed, cabined, and confined" in the treatment of his subject. The statements therein contained are of such an essentially neutral and colourless quality that there is nothing to invite argument, disputation, or contradiction. There is a careful, almost studied, abstention from anything bearing even a remote resemblance to a deduction or conclusion of any kind. The reader is left absolutely free to draw his own inferences, unhampered by as much as a suggestion.

It is a pity. There is a large mass of statistical data at the disposal of the Lunacy Office. The question of insanity, its terribly persistent advance, its mysterious origin and causation, the need for a remedy, give abundant material for reflection, and some attempt towards a

solution of this grave and perplexing problem might be expected from those who have at their disposal most of the available information regarding this momentous question. But we look in vain for the slightest intimation of any examination into the inward meaning and bearing of facts. They merely look *at* the facts, as the general public do, but not *into* them as experts might be expected to do, and seem content to be very little more than mere mechanical compilers of statistics, whereas we should more gladly welcome them as originators of fruitful and inspiring suggestions. If ever the march of insanity is to be checked the axe must be laid to its root, and an effort, determined and widespread, must be made to inhibit those causes which are found to be most conducive to its development; and surely this is a matter upon which statistics—if they are capable of teaching anything—should be able to enlighten us. And of all the subjects connected with insanity its causation is without doubt the very most important to keep prominently before the public, if ever they are to be educated to seek a remedy amongst themselves—and from no other quarter is an effectual remedy ever likely to arise. This is a topic on which some stress might be laid in Reports dealing with the increase of insanity; its importance is such as to justify its being dwelt on at some length, and with appropriate emphasis; but it is passed over almost in silence in the Lunacy Blue Book. The piece of gratuitous information that “Table XIV gives the probable causes of insanity amongst those admitted” sums up in the official view all that is necessary to be said on the subject. We are practically told: “There is the table, make what you like of it; we hold no opinions of our own on the matter, and don’t wish to trouble you with any.” And the table, like its predecessors, is buried out of sight, unnoticed and unutilised.

We have more than once in these pages called attention to this feature in the Inspectors’ Reports, which cannot be regarded otherwise than as a grave defect. Health statistics, dealing as they do with a subject which so nearly concerns a people’s welfare, even its very existence, are, except to the curious in such matters, of little or no practical use when merely jotted down, scheduled, and tabulated. They are merely a means to an end, that end being the improvement of the mental and physical conditions of the lives of the people, and the removal of all agencies which tend to produce deterioration. If the end is not attained, the mere presentation of facts and figures is a waste of labour, a bootless task, unproductive, objectless, profitless.

Naturgeschichte des Menschen [Natural History of Man]. By Dr. C. H. STRATZ. Stuttgart: Enke, 1904. Pp. 408, large 8vo.

Dr. Stratz has approached the task of writing this “sketch of somatic anthropology” with an admirable equipment. He is at once an experienced gynæcologist who has given much attention to embryology, a traveller in many lands, who by a long residence in Java has become intimately acquainted with primitive peoples, and the author of several excellent and beautifully illustrated works on artistic anatomy. The present volume clearly reveals the traces of this triple qualification, and

exhibits many novel and interesting features. If we examine a manual written by a laboratory anthropologist, for instance the very useful and exact *Races of Man* by Deniker, we find in the first place a careful description of all human characteristics, physical and mental, and then an elaborate account of the various human races and sub-races. Dr. Stratz's method is at once narrower and broader. He wisely omits psychology and sociology altogether, and he is content to deal somewhat generally and summarily with the characteristics of the various human races. On the other hand, he deals somewhat fully with phylogenetic and embryonic development, as well as individual growth and sexual differences, and attaches much importance to questions of proportion and the external features of the body. We need the methods of medicine in anthropology, he declares, and a wise comprehension of the whole of the "symptoms" of a race; "much more important than skull capacity is the comparative prominence of the superciliary ridges; much more important than stature the relations of the various parts of the body to each other; much more important than the colour of skin and hair are the course of the little folds over the eye and the shape of the feminine nipples." Throughout his book Dr. Stratz regards anthropology as mainly the study of the living and growing organism.

As in all the author's books, the illustrations are a special feature. Besides five coloured tables and maps, there are as many as 342 figures in the text; they are nearly always admirably selected and beautifully reproduced.

HAVELOCK ELLIS.

Force Ennemie. By JOHN ANTOINE NAU. Paris: Edition de la Plume, 1904. Pp. 351, 8vo. Price 3 frs. 50.

This novel—a vivid and minute description of life in a private asylum—has had the honour of being "crowned" by the Académie Goncourt, a body which includes some of the most eminent French men of letters. It is a little surprising to find even the least orthodox of academies bestowing its honours on so unconventional and unliterary a book—a book which certainly has its chief value as an extraordinary "document." That, however, is a matter which must be left with the Académie Goncourt's literary conscience. The psychologist and alienist, at all events, need find no real cause for complaint, even although the book can scarcely be said to be written in their honour.

Force Ennemie is the term used by the author to indicate that hostile power, or foreign personality, which so often seems to the insane subject to have entered into him, controlling his actions and sucking his life-blood. The book is written in autobiographical form, and describes the experiences of a young literary man who at the beginning of the story awakes to consciousness in the padded room of a provincial (apparently Normandy) private asylum, belonging to a certain Dr. Froin, an amiable old man, who, we are led to believe, has allowed the discipline of his establishment to become unduly relaxed; he is assisted by a Dr. Bid'homme, a monster of inhumanity, who is eventually found to be himself insane, and, in consequence, becomes a patient. The hero, if so he may be called, Veuly, describes with minute and graphic realism his environment, his fellow-patients with

the various characteristics of their behaviour and conversation, his attendants, as well as the whole mental process of his own experiences.

He believes that he is possessed from time to time by a spirit called *Kmôhoûn*, the denizen of a remote planet. With *Kmôhoûn* he frequently holds amicable discourse, but from time to time the sensitive and timid *Veuly* altogether loses his own personality in that of the reckless and brutal *Kmôhoûn*. One such episode of this kind is very admirably worked out; *Veuly* had found opportunities of gazing at a young woman who was confined on the female side, and cherishes for her all the high-strung feelings of a sentimental eroto-maniac. By a series of tricks and accidents he succeeds in making his way to her bed at night and is caught in the act of attempting a rape. Considerable subtlety is shown in working out the psychology of this brutal insane impulse in a usually nervous and embarrassed young man with an admiring reverence for women. Very skilfully developed also are *Veuly's* attempts to show by his speech and actions that he is absolutely sane and normal, and the inevitable way in which some terrible lapse always occurs. He escapes from the asylum and works his passage to the West Indies, in search of the lady he had worshipped and assaulted in the asylum, but he drifts back and finally dies in the asylum with dementia, we are given to understand, leaving behind him his autobiography, supposed to be written in collaboration with a distant relative.

Whatever improbabilities there may be in this narrative, it contains so many vivid episodes marked by veracity, and shows throughout so extraordinary an insight into the workings of the insane mind, that it is difficult not to believe that we are here concerned with a fiction that is more than half truth. Such a supposition is strengthened rather than destroyed by the deliberate mystification of the author's preface in which *M. Nau* tells us that the book is the fantastic creation of a madman, in which he himself has had a very small part. There is further mystification in a letter at the end of the book, in which *Dr. Le Joyeux des Eypaves* states that the whole book is an absurd and unpleasant fiction, that *Veuly* is merely the self-imposed pseudonym of a patient of his called *Gigon*, that *Dr. Froin* had never been more than a patient in his establishment, that the incidents narrated had not occurred, and could not occur in his well-ordered house, and that the beautiful young woman supposed to have been assaulted was really a respectable old woman with the face of a witch whom *Gigon* had only seen in the distance.

Force Ennemie appears to be the first work of its author, whose name has a tri-lingual appearance, and who writes his preface from *Huelva*, in Spain. It may be noted that (like *Veuly*) he is a poet, and he announces for publication a volume of verse with the fantastic title *Hiers Bleus*.

It ought to be added that, notwithstanding some of its episodes, the book is neither openly nor covertly an attack on asylums or on alienists; and in the Preface the author expresses his high regard for both so far as he knows them.

Whatever the nature of the opportunities which the author has possessed for studying the operations of the insane mind, he has certainly

produced a remarkably interesting book. And perhaps the Académie Goncourt is right after all.

HAVELOCK ELLIS.

Part III.—Epitome of Current Literature.⁽¹⁾

1. Anthropology.

Concerning certain Teratological Characters of the Hands and Feet [Intorno ad alcune note teratologiche delle mani e dei piedi]. (Arch. di Psichiat., vol. xxv, fasc. iv, 1904.) Mariani and Mannini.

This paper records a case of polydactylism presenting some features of interest. The deformity affected all four extremities. In each hand, which was otherwise normally formed, there was a well-developed supernumerary thumb made up of the usual bony elements and articulating with an epiphysis on one limb of the bifurcated metacarpal. This thumb in general followed the movements of the normal pollex, but it had a limited power of independent function.

In the feet, in addition to polydactylism, there was syndactylism and a remarkable degree of prehensile power. Each foot bore a supernumerary hallux, fully developed. In the radiographic examination it appeared that the external cuneiform was deviated inwards, so that what would normally be its anterior surface became internal, and articulated with the metatarsal of the inner hallux. This inner great toe was freely movable and could be opposed to the other digits in prehensile movements. The external hallux had a rectilineal position, forming part of the mass of the foot, which showed a moderate degree of webbing.

From its mode of articulation with the internal cuneiform, the authors would regard the inner hallux as the true one, the outer being a supernumerary, interposed between it and the rest of the foot. In this view, accordingly, the case would be one of polydactylism, not in a normal, but in a pithecoïd foot, and would, therefore, be an instance of the atavism so dear to the Italian school.

As regards the cause of the anomaly, the only but sufficient cause traceable in the family history was parental pellagra, the father having suffered severely from this disease and having developed pellagrous insanity soon after the conception of the patient. It will be recalled that the importance of this parental intoxication as a cause of abnormality of development has been established by the experiments of Ceni and the clinical researches of Antonini and Agostini. W. C. SULLIVAN.

On the Mental Diseases of Animals [Ueber die psychotischen Erkrankungen]. (Monats. f. Psychiat. u. Neurol., B. der Tiere xvi, 1904.) Dexler.

Professor H. Dexler, in an exhaustive paper on this subject, enlarges upon the difficulty of comparing the mental aberrations of the lower

⁽¹⁾ A report of the Progress of Psychiatry in 1904 will appear in the April number of the JOURNAL.

animals with those of human beings. The mental superiority of man makes a wide bridge between the two, and in the absence of the faculty of speech we are reduced to guess the character of their intelligence and the nature of its derangement. In the higher mammalia, dogs and horses, we observe organic brain diseases, encephalitis, parasites, or tumours in the brain, and hydrocephalus. There are also intoxications from poisons, such as the effects of mercurialisation on some animals similar to what has been observed in man. But, as Dexler observes, encephalitis is not the analogue of insanity in man. He would even refuse the title of insanity to rabies and to a man affected with hydrophobia. This seems but a question of terminology. Dexler grants that we cannot deny that some of the higher animals possess consciousness, memory, the power of choosing and volition. Many animals use sounds with a certain purpose and understanding. Thus, there may be alienations and perversions in their mental life, though within narrower bounds than in the mental circuit of man. There are exaggerations of passion during the period of sexual excitement, hysteria, and fits of transitory mania and dementia. He mentions that Mendel and Gerdes have described a morbid process induced in dogs which they regard as analogous to general paralysis; but this Dexler will not admit. Dogs and horses dream and may have sensory illusions. The author describes cases in dogs resembling melancholia attonita. Professor Dexler gives in detail three most careful clinical studies of dogs affected with a malady resembling the distemper, with the results of *post-mortem* examination.

He has arrived at the conclusion that these dogs were not insane, but affected with a special form of encephalitis accompanied by obtuseness of sensation and disorders of the psychomotor functions. They appeared to be affected with somnolence, passing into stupor, loss of sensibility in most of the nerves, and diminished power of mental guidance. They suffered from an organic affection of the brain, an acute inflammation, with symptoms such as have been observed after poisoning with monoxide of carbon, brain tumours, and injuries to the skull.

Although in the animals so affected there is a marked diminution of the intelligence, Dexter holds that this cannot go properly under the name of dementia. With him, insanity, as known in man, is something specific, not to be found in the lower animals.

WILLIAM W. IRELAND.

2. Physiological Psychology.

An Inquiry into the Nature of Hallucinations. (*Psych. Rev.*, Jan. and March, 1904.) Sidis, Boris.

These articles are a serious and careful attempt to analyse hallucinations. The author considers that the simplest hallucinatory manifestation is to be found in a synæsthesia. Hallucinations are of the nature of secondary sensations. Hallucinations of vision or sound or movement will predominate, according as the type of mental struc-

ture is visual, audible, or mobile. Audiles are inclined to paranoia. Even in hypnosis, hallucinations are more easily realised if adapted to the mental type of the subject. Pathological processes going on in one organ may give rise to secondary sensory elements in other sense organs, when favoured by dissociation—a state of dissociation being an indispensable condition for the formation of hallucinations. Several cases are brought forward in which pathological conditions of one sense organ (as the ear) led to hallucinations in another sense organ (as the eye), ideomotor excitement and dissociation also coming into play. Like normal percepts, hallucinations are thus not central but peripheral, to be regarded as complex cases of secondary sensation in which the original primary sensation is dissociated or left in the background of consciousness. The peripheral process alone, however, even if pathological, will not suffice: there must also be both sub-excitement of representative elements and dissociation. Like Parish, the author insists on the dissociating influence of the approach of sleep in favouring hallucinations which are “abbreviated dreams.” Hobbes has long since remarked to the same effect. But dissociation may also take place in waking states. The author argues throughout that “normal and abnormal are but teleological concepts,” practically important to distinguish, but scientifically identical; “the abnormal is the normal out of place.”

HAVELOCK ELLIS.

3. Clinical Psychiatry and Neurology.

Babinski's Sign in Extra-pyramidal Lesions of the Cord [*Le condizioni della presenza del segno di Babinski nei casi di lesioni extra-pyramedale*]. (*Riv di Patol.*, vol. ix, fasc. 9.) Bertolotti, M.

This is an interesting paper in which the author discusses the genesis of Babinski's sign in lesions other than those involving the pyramidal tracks of the cord. He cites two cases of this sort which presented in a marked degree this reflex. In a former paper, he expressed his opinion as to the clinical value of the toe reflex, and now desires to draw special attention to the aid which reaction of degeneration affords when present with Babinski's sign. If, he says, when the plantar reflex is perverted, reaction of degeneration be found present in the flexor muscles of the toes, the clinical observer should be on his guard against diagnosing a lesion of the pyramidal tract.

His first case was that of a youth *æt.* 20, who apparently suffered from sciatica of a most painful description, at first limited to the right side. Three months after its appearance wasting of the muscles of the lower limb ensued, and he could no longer follow his employment. Subsequently pains in the left limb followed. On examination, palpation revealed exquisite tenderness at the junction of the last lumbar with the first sacral vertebra. There was advanced atrophy, especially on the right side, of the muscles innervated by the great and small sciatic and superior gluteal nerves. The muscles on the posterior surface of the right lower limb, and to a lesser extent of the left, were much weakened in their action, as also were the flexor

muscles of the toes, while the antagonistic muscles preserved their normal power. In addition to the markedly hyperæsthetic area before mentioned, hyperæsthesia was present from the gluteal fold to the sole of the foot. The sphincters preserved their tone, and sexual power was well maintained. There was no spasticity or inco-ordination. On both sides, the knee-jerks were very sluggish, and the tendo Achillis reflex was absent. Babinski's sign was present on both sides, and the "antagonist reflex" of Schäfer, and the "associated sign of the anterior tibial," or Strümpell's sign, could also be obtained.

In this case, the presence of Babinski's reflex pointed to a probable pyramidal lesion. As a rule, of course, it is accompanied by hyper-tonicity of the muscles and exaggeration of the tendon reflexes, but it is known to be present at times in cases of flaccid paralysis with abolition of the tendon reflexes. The absence of any sphincter trouble or any purely cord symptoms, the intense neuralgia and the radicular distribution of the paralysis exclude a lesion of the cauda equina or conum terminale, and suggested rather a partial lesion of the nerve roots. Every doubt was removed by the discovery of a sacral malformation at the level of the first sacral vertebra, which on cutting down proved to be a tubercular infiltration of this vertebra involving the first two pairs of sacral nerves. There was no meningeal infection. A sharp febrile reaction followed on injection of tuberculin, the temperature going up to 39.5° .

The presence of Babinski's sign and Strümpell's tibialis-phänomen then had to be accounted for. Some might argue that they could be due to the morbid process exciting pyramidal changes in the cord. Examination of the neuro-muscular reactions to the constant and induced current, however, simplified the matter and threw fresh light on the genesis of the reflex, which apparently pointed to an intra-medullary lesion.

The muscles innervated by the sciatic, internal popliteal, and posterior tibial nerves showed marked reaction of degeneration, while the muscles whose nerve supply was the external popliteal and anterior tibial exhibited no trace of this, but only a diminution of galvanic excitability. In cases of polyneuritis the muscles innervated by the latter are in the great majority of cases those affected, and Bertolotti holds that the presence of Babinski's sign in the case under observation is due to the unusual distribution of the paralysis.

Crocq, Lortat, Jacob, Boeri and Babinski have published cases of the appearance of this toe phenomenon in extra-pyramidal lesions. The last-named remarked when citing his case, one of anterior poliomyelitis, that he had never met with it before in this disease, and in this special case the flexors of the toes were completely atrophied and quite incapable of executing either voluntary or reflex movements of flexion.

Bertolotti's second case was one analogous to Babinski's above mentioned. The patient was a child, æt. 5, who contracted infantile spinal paralysis after a sharp attack of fever, and exhibited the great toe dorsal extension phenomenon very markedly.

The author points out that in these two cases of extra-pyramidal lesions the presence of Babinski's sign was due to the absence of the normal equilibrium between the antagonistic muscles of the toes, the

flexors and extensors, and publishes these two cases with the view of showing that the great toe reflex can be present where no pyramidal lesion exists, while he acknowledges the diagnostic value of the sign, and does not in the least intend to under-estimate its importance.

He then proceeds to discuss whether the reflex obtained in such cases as his own is a true reflex or not, and, if it is, where its seat of origin resides.

Pflüger held that in order to constitute a true cutaneous reflex a reflex movement should obey the following three "laws": (1) the law of localisation; (2) of radiation and propagation; and (3) of co-ordination. Thus, every movement which was localised, co-ordinated, and proportionate to the intensity of its cutaneous stimulus should be considered as a genuine cutaneous reflex. In the author's first case, the reflex did not fulfil Pflüger's first "law," for it could be obtained, not only by tickling the plantar cutaneous surface, but also by pinching the skin over the tendo Achillis and the skin on the anterior external surface of the thigh. Schäfer's so-called antagonistic reflex—dorsal extension of the great toe consequent on pinching the tendo Achillis—which was present in this case, the author holds is none other than the ordinary pathological plantar reflex, the seat of the stimulus only being different. Now, Jendrassik and van Gehuchten have laid down that normal physiological cutaneous reflexes are of cortical origin, and the latter holds that there is a strict line of demarcation between them and pathological skin reflexes of the lower limbs. He says that the latter can be obtained from stimulating the skin over any part of the lower extremity, while the true cutaneous reflexes respond to stimulation of a known and restricted surface area, and fulfil the three conditions laid down by Pflüger. Babinski denies this division between true and pathological skin reflexes, and holds that it does not serve to distinguish whether the various cutaneous reflexes are physiological or not, and points out that the cremasteric reflex, a good type of normal cutaneous reflexes, may be elicited, not only by stimulating the upper and inner region of the thigh, but also by stroking the skin of the leg or foot. Bertolotti agrees with this and remarks that it may at times be excited by approaching the finger towards the skin of the abdomen or thigh, in this case a purely psychological impression sufficing to produce a normal skin reflex which is exhibited like an instinctive movement of defence. Therefore, such a division as van Gehuchten has laid down has no reason for its existence, it having been proved that physiological skin reflexes can be produced under like conditions to those of pathological origin.

He agrees with Babinski's criticism of the work of van Gehuchten and others on the so-called antagonism between cutaneous and tendon reflexes, and maintains that this antagonism is more apparent than real. While it is true that in pyramidal lesions, as Rosenbach was the first to observe, the cremasteric and abdominal reflexes are generally weakened or absent, yet other cutaneous reflexes, which do not appear physiologically or are very weak, in cases of cortico-spinal lesions become very marked. For example, in a case of spastic paraplegia if the skin of any part of the lower limbs is sharply stimulated, a brisk movement of flexion of the lower limbs results, though the abdominal and cremasteric

reflexes have been lost. On considering, then, the behaviour of the cutaneous plantar reflex in lateral column lesions, it is evident that it is perverted—that is to say, that in the great majority of cases, instead of flexion of the toes, extension of the large and other toes is obtained. It is no more correct, therefore, to say, in pyramidal lesions, that the cutaneous reflexes are weakened in antagonism to the tendon reflexes than it would be correct to say that they were exaggerated. What can be said with safety is that the “law” which governs these cutaneous reflexes has undergone a sudden change.

Bertolotti holds that it is useless to try and establish that there is a special centre for abnormal cutaneous reflexes, and prefers to believe that the reflex movement due to a peripheral stimulus is conducted to its centre along the sensory paths and then is exhibited according to the path which it best can follow. This simple idea of the genesis of an abnormal reflex act had already been put forward by several authors, and Boeri, in a paper on Babinski's sign, attributed its mechanism to the failure of the antagonistic action which normally exists between the flexors and extensors of the toes. It has been proved that in paralysis of central origin the extensors in the upper, and the flexors in the lower, limb are more paralysed than the corresponding flexors and extensors, as the contractures following hemiplegia show. When the pyramidal paths have undergone an alteration, be it functional or organic, the innervation of the flexors of the lower limb is either deficient or absent. In such a state of things, the cutaneous reflexes will exhibit themselves according to what position the antagonistic muscles stand in relation to one another. If, then, the physiological plantar reflex of flexion is cortical in origin, the cutaneous plantar reflex of extension, which is simply a perversion of the former, will take its rise from the same centre.

The author also holds that in the production of abnormal skin reflexes motor paths other than the pyramidal come into play. This was first put forward by Homburger. He alleges that the reflex movement consequent on cutaneous stimulation arrives at its usual centre of innervation, but, not being able to pursue its ordinary centrifugal course through the direct cortico-spinal paths, passes through an extra-pyramidal tract, and that this “spino-mesencephalo-cortical” path is the one through which the innervation of the extensors of the leg and the flexors of the upper limbs is controlled.

He sums up the foregoing arguments by saying that a pyramidal lesion realises certain well-determined conditions, and Babinski's sign, as well as other pathological skin reflexes, depends on the unequal distribution of the motor paralysis, whether the lesion be cortical, pyramidal, or, in exceptional cases and systematised in a special manner, extra-pyramidal. The so-called pathological cutaneous reflexes, then, should be considered as normal reflexes but mis-shapen, in consequence of the deviation of the impulse from the ordinary reflex paths along tracts which are only free of access when the former have been obstructed.

As regards the localisation of the centre for Babinski's sign, Bertolotti thinks the views of Marinesco on the subject are of considerable value. This writer believes that the centre is situated in the cortex, and his

clinical observations seem to uphold this. He has observed that Babinski's sign is the first of all reflexes to disappear under chloroform anæsthesia; and it is a well-known fact that the cortical nerve centres are the first inhibited by the action of chloroform. In addition, he has observed—and this, says Bertolotti, is worthy of note—that in cases where Babinski's sign is present voluntary extension of the toes is better preserved than plantar flexion.

A. J. EADES.

Insanity after Poisoning with Carbon Bisulphide [*Neue Erfahrungen über Geistessstörungen nach Schwefel-Kohlenstoffvergiftung*]. (*Monats. f. Psychiat. u. Neurol.*, Aug., 1904.) Quensel.

Dr. Quensel describes the course of the symptoms of a man æt. 23, strong and not disposed to any hereditary disease. Working for a short time amongst the vapours of carbon bisulphide, C.S₂, he passed into a state of mental confusion with much motor excitement, rapid change of ideas, and some illusions of the senses. This was accompanied with a rise of temperature which was maintained for twelve days. The delirium quieted down, but was followed by extreme prostration of strength, with weakness of the heart, which ended in death.

The author, who has diligently studied the literature of the subject, observes that this is the only case on record of acute insanity following upon intoxication with carbon bisulphide which had a fatal ending. The section was made eight hours after death. The alterations found were not of a specific character, being much the same as what have been observed after acute mania of different origins, acute alterations of the nerve-cells seldom reaching a process of destruction. These were observed generally over the brain, here and there in the medulla oblongata and spinal cord. The changes noted in the vessels were similar to those found after delirium with hyperæmia of the brain and even in the nerve centres of old persons otherwise healthy. Käster, in his experiments on animals with carbon bisulphide, has found great degeneration of the nerve-cells and alteration in the nerve-fibres.

Dr. Quensel's studies on this toxic agent go to show that carbon bisulphide can become the cause of serious mental derangement amongst those exposed to its vapours in gutta-percha manufactures. The general course of insanity following upon this kind of intoxication is somewhat as follows: There are fugitive symptoms of intoxication before the supervention of maniacal excitement, which is sometimes varied by depression; well nigh all the mental faculties become involved, and the delirium may lapse into a condition of chronic fatuity.

WILLIAM W. IRELAND.

On the Etiology of the Disappearance of the Thyroid in Cretinism and Myxædema [*Ueber die Etiologie des Schilddrüsenschwunds bei Cretinismus und Myxædem*]. (*Neurol. Cbl.*, September 1st, 1904.) Bayon.

Dr. Kocher had the merit of pointing out that cretinism did not supervene upon goitre till the degeneration of the thyroid had come to such a degree that the function of the gland was destroyed or seriously

impaired. Dr. Bayon tells us that Ewald has tried to establish a distinction between epidemic and sporadic cretinism upon Virchow's theory of the early synostosis of the basilar process with the sphenoid in cretins. This theory was refuted by M. B. Schmidt in his *Allgemeine Pathologie und Pathologische Anatomie der Knochen*, 1897, in which he showed that the tribasilar synostosis was really a symptom of *Chondrodystrophia fetalis*. But the question whether this affection was connected with disease of the thyroid remained unanswered.

Sporadic cretinism depends upon deficiency of the thyroid, generally dating from the foetal state, while in cretinism the affection of the gland mostly occurs in the years of infancy.

Dr. Bayon makes the important observation that almost every infectious disease which pervades the human constitution is accompanied by inflammation of the thyroid. This is difficult to observe clinically, as the resulting swelling of the gland is seldom so great as to be apparent.

Dr. Bayon was able to study the thyroid glands of five cretins which he obtained at the Clinique of Würzburg. One of these had the usual structure of struma cystica; the other four were in the process of degeneration; no trace of colloid. Some remains of follicles were scattered in the connective stroma. In one case the connective tissue shows no traces of structure save a few discoloured nuclei; it is of a glassy appearance.

Dr. Bayon tells us that the epithelial lining of the follicles of the thyroid have great powers of regeneration, like the epithelium of the kidneys.

WILLIAM W. IRELAND.

On Acute Insanity ending in Death [Ueber akute tödlich verlaufende Psychosen]. (Monats.f. Psychiat. Neurol. B. xvi, 1904.) Weber, H. W.

Dr. Weber describes three cases of acute insanity which came to a fatal end without any organic disease of the brain or other contributory causes, such as exhaustion from refusal of food, restlessness, bacterial infection, pneumonia, or other diseases. The principal symptoms in these cases were deep depression with great distress. The powers of association and motor activity were limited. Hallucinations and delusions were generally absent. Sometimes there are katatonic symptoms, especially catalepsy, passiveness, or automatic response to orders. There was no fever save towards the end. Coldness, cyanosis, and oedema of the extremities indicated the impairment of the circulation. Dr. Weber does not consider this group of symptoms the result of a peculiar ætiological or pathological process; he rather regards it as the acute stage of organic and functional insanities of different kinds.

Like acute delirium, this form of insanity, though it appears quickly and runs a rapid course, probably acts upon constitutions already prepared for it. Predisposing causes are cerebral injuries and a deeply neurotic heredity, such as may be found in the insanity of adolescence. In pathological examinations of these cases there were observed chronic alterations in the brain, the result of former lesions, and also morbid changes in the vessels, the neuroglia, and the nerve-cells, as is noticed after acute delirium. These pathological observations, however, do not go far to explain the course of the disease. WILLIAM W. IRELAND.

4. Asylum Reports, 1903.

Some English County and Borough Asylums.

Carmarthen.—We note with pleasure that the Committee have instructed Dr. Goodall to ascertain what is being done at other asylums about superannuation to officials under the Lunacy Acts. Private patients number forty-seven, one paying 40s. per week, which seems to be a large sum.

The subjoined excerpt from Dr. Goodall's report is highly interesting. But why the term "communicated"? Is insanity catching?

Among the many interesting admissions special reference may be made to the cases of a father with his two daughters, all received together. Such cases of so-called "communicated insanity" are rarely seen. The circumstances predisposing to their development existed in this instance: neurotic degeneration in the family, lonely surroundings, unusual anxiety, stress of mind amongst those attacked, a terrifying suddenness of onset in the first case. Another curious feature was that death occurred in the same way, and from the same cause, in two of the cases.

Derby County.—The Committee have been much exercised by the risks of fire, and have installed a very elaborate system for contending against an outbreak, for summoning aid, and for easy egress of patients in case of conflagration. The brigade, at first, had a very thorough testing of its readiness, for the new bells, before they got well regulated, gave five separate false alarms by night.

The following figures are noteworthy:—General paralytic cases (Table XI).

Admissions.—M. 6; F. 7; T. 13. *Deaths.*—M. 4; F. 6; T. 10.

Remaining.—M. 10; F. 1; T. 11.

Dorset County.—Dr. Macdonald notes with satisfaction the reversion to anxious and troublesome mania displayed in the admissions in place of the preponderance of a wretched type of hopeless melancholia. He reports two cases of recovery after ten years' and one after twelve years' treatment. He very rightly says that such cases rebut the idea that the routine life of an institution is not conducive to well-being and recovery of patients after any length of time under treatment. In his remarks on the recovery-rate he pointed to the great difference in this rate between the sexes, in favour of the women, and also to the fact that the recoveries in the married class were still more in favour of the female sex. He deduces from these facts that women break down more than men from ordinary non-organic causes. They have to bear the larger share of the burdens and worries of domestic life, the physical health gives way under the stress, dragging down with it the mental health. As a consequence rest, good nursing, and liberal diet have the greater effect in promoting recovery with them.

In the Commissioners' entries in the visitors' book we find the following:

In the very thorough examination which we made of this asylum we were much struck with the great freedom given to and the trust placed in both the nursing staff and the patients, a system which under Dr. Macdonald's supervision appears to have been attended with much success.

Glamorgan.—This contains the last of a long series of valuable reports from the pen of Dr. Pringle, who retires after thirty-seven years' service. His retirement was the subject of well-expressed regret on the part of the Committee, backed up by the very practical recommendation of a handsome pension. For ourselves we can only say that, in reviewing for several years past the writings of many superintendents, we have always considered Dr. Pringle's to be one of those which stand out for the reasoned and authoritative exposition of facts and their probable bearings in such form as to be of essential service to those in his county who may care to seek instruction in the social aspects of insanity. We take this opportunity of congratulating Dr. Stewart on succeeding one whom he has loyally assisted for years past.

Dr. Pringle adverts to the fact that the county has the low proportion of 1 insane to 499 of population. Before it was opened up by the railway the Vale of Glamorgan was the blackest spot as regards insanity, the inhabitants being all related. Even the inhabitant of the next parish was looked upon and treated as a foreigner. He states that now one third of the county population (exclusive of the County Boroughs of Cardiff and Swansea) are aliens, that is, born outside its borders. He attributes the comparative mental healthiness to the exceedingly mixed character of its inhabitants. In relation to the discharge of unrecovered patients to the care of their friends he insists on the necessity for fitness to receive on the part of the friends being as necessary as fitness on the part of the patient to be received.

London County.—This report commences with the statistics of all lunatics in the county exclusive of private patients and criminal patients. It is alarming to find that the increase in 1903 amounted to 996—the largest increase ever recorded. But in regard to *certified* pauper patients the increase is only 441. Adding to this number a certain proportion of private patients who, but for occupying ordinary accommodation under that name would infallibly occupy it as paupers, the increased responsibility to find accommodation for the year came to 508, slightly in excess of the 500 estimated to be the mean increase, which has been assumed by the Council in preparing fresh asylum accommodation. The Committee gives statistics of relapses which are somewhat startling, inasmuch as they show that 25·72 *per cent.* of the discharged recovered 1895—1903 have been readmitted, while 12·22 *per cent.* of the recoveries relapsed within twelve months of their discharge.

The proportion of lunatics to population in the county is 5·25 per 1000, the ratio being highest in the Strand parish, 13·7; lowest in Hampstead, 2·1 per 1000.

The perusal of this table suggests to us that it contains much material for investigation by a competent inquirer. We are constantly hearing reference made to environment as a factor in the causation of insanity. Here is environment enough to be worth inspection. Why Hampstead should stand lowest is plain enough, and why the Strand, with its small population, varied pursuits, and strenuous life should stand highest is not a source of great wonder. But surely some explanation could be usefully supplied to account for Holborn Union habitually providing

twice as many patients as Camberwell? Why should Shoreditch always stand considerably higher than Poplar, Mile End, and Stepney?

The Committee announce their intention to introduce again their Bill for the establishment of receiving houses for "alleged" lunatics. The use of this adjective opens the door to a variety of reflections. We had no idea that the question of doubt as to sanity was to determine the use of these institutions. We had the impression, on the other hand, that their chief use was for the treatment of overt insanity in its earlier stages. The Association, through its Parliamentary Committee, is closely watching the provisions for extending the normal residence in the houses, for fear that repeated extensions may keep patients who need, for recovery, asylum treatment away from such treatment. Those extensions would hardly be contemplated for the settlement of the question whether the patient was an alleged lunatic or not. Probably the use of the term in this report is inadvertent, and therefore not to be taken in a too serious light, but its appearance in an official document throws some light on the position taken up by those who are responsible for the Bill.

We find the usual graphic chart, showing the relations of the actual lunacy of the county to population, to ordinary pauperism (other than that created by lunacy), and to the total accommodation provided for patients by the county and the Metropolitan Asylums Board, and also the relationship of the accommodation provided (whether in its own asylums or by contract) to the total number of lunatics for whom the county itself is responsible. It is most satisfactory to find that now, whether the responsibility of the Council itself or its responsibility jointly with the Metropolitan Asylums Board is considered, that responsibility is practically satisfied. Fifteen years ago there was a disparity in either case of about 15 *per cent.* between what was done and what should have been done and is now done.

The reports of the individual asylums supply the following notes :

Banstead.—We are rather surprised, after the fearful occurrence at Colney Hatch, to read that the Home Secretary has consented, over the head of the Commissioners in Lunacy, to the erection of a new permanent addition for 300 patients. The Commissioners, in their report, very plainly express their regret for this, pointing out that while it is against their expressed view as increasing the size of the asylum, it entails the protracted use of temporary buildings which, in spite of such safeguarding against fire as they detail, constitute a source of great danger, not only to the patients of these wards, but also to the main building itself.

Claybury.—Dr. Robert Jones has started systematic physical training as a means of treatment. The assistant matron and a charge nurse attended classes in Swedish drill for the purpose of becoming efficient in teaching to the patients the exercises marking that system of drill. These exercises, together with the use of skipping ropes in each of the female airing courts, have been attended with distinct benefit in the opinion of Dr. Jones and of Dr. Ewart, who has specially interested himself in the matter. It is to be hoped that more prolonged use will

enable some definite valuation of benefits to be arrived at, but beyond this we must commend the trying of the experiment on the grounds that it adds to the unceasing attempts made in all directions to 'do something' for the treatment of mental disease. Whether it be of prime or only secondary importance, yet its institution is ample confutation of the idea that patients are left to linger in our asylums without effort to ameliorate their condition.

Dr. Jones, while inveighing against the evil effects of alcohol, points out that his statistics show that 44 *per cent.* of male and 33 *per cent.* of female deaths were of the alcoholic-insanity class; so too with deaths from general paralysis. He is very right in adding that drink is not only a curse to the drinker, but also to those dependent on the latter. Seventy *per cent.* of the male and 80 *per cent.* of the female alcoholic cases had families depending on them. Thirty *per cent.* of these males had been skilled handicraftsmen.

Colney Hatch.—Dr. Seward records that during the last five years 36 cases of enteric fever have occurred, distributed as follows:—Male staff 0, female staff 17, male patients 4, female patients 5. The enormous disproportion (taking into consideration the number of each class) in which the female staff has suffered has attracted attention. Dr. Mott and Dr. Eyre, of Guy's Hospital, have been appointed to investigate for a period of six months at this asylum the truth of a recent German statement to the effect that enteric fever may be present in a latent form in persons who have been in contact with those suffering from the disease; and that although such persons may present none of the ordinary symptoms, they nevertheless may be the means of communicating the disease to others who are more susceptible. Colitis is showing a diminution, and Dr. Seward hopes that the five-year old epidemic is now at an end. Throughout its continuance only two attendants suffered, and the nurses altogether escaped.

Hanwell.—Here a variation of the old difficulty about the residence of the medical staff arose. The Committee proposed to add to the late steward's house accommodation to fit it for the residence of the assistant medical officers. But in this case the Home Secretary supported the decision of the Commissioners.

It is satisfactory to read that in 242 out of a total of 258 deaths an autopsy was made, and as Dr. Alexander states that in his experience of years no autopsy was made without the friends of the deceased being given an opportunity of vetoing it, it would appear that reluctance of relatives has in some places too high a value put upon it. No less than 62 *per cent.* of the female admissions were of the melancholic type.

Heath Asylum (Bexley).—The Committee have decided to erect a hospital villa for the males on the lines as to one of that now existing for females. As to this latter the visiting Commissioners reported:

A feature of the asylum on the female side is the hospital villa, where all patients are received on their admission, and in the convalescent villa (formerly the steward's residence) is the elimination of everything which would suggest the

idea of detention. The fencing in the grounds and bars to the windows are dispensed with, and the houses are treated as ordinary dwelling-houses. The windows are without stops, the patients have free access to the grounds, and there is no indication of restraint.

Dr. Stansfield found general arterio-sclerosis in 34 *per cent.* of his admissions, it being associated with the following factors in the stated number of cases:—Senility 56, alcohol 53, insane heredity 46, syphilis 43, previous attacks 36, phthisical heredity 23, alcoholic heredity 23, Bright's disease 21, gross lesions of the brain 16. The total admissions were 528. Syphilis was found in 17·6 *per cent.* of the admissions. This latter proportion suggests that in many asylums where perhaps only one or two cases are so tabulated a large amount of the disease must be overlooked. The figures given by Dr. Stansfield as showing the relations of this affection and general paralysis are truly remarkable, 77·9 of male cases of the latter and 70·13 of female cases affording evidence of syphilis in the course of five years. The constancy of the ratios in the males during these five years is equally remarkable, the highest being 81, and the lowest 74.

Dr. Stansfield has formed a strong opinion as to the incidence of dysentery in new asylums—that the organisms which produce it may be latent in the deeper layers of the soil, and are brought up and thus accorded activity by the disturbance in digging foundations. He attributes the rapid decrease in the incidence at Bexley to the heavy rainfall of last year, which washed them back again to their habitat.

Epileptic Colony, Ewell.—This is the first report of this new institution. Its objects are, in the main, well known to all, but for details on this and other points we will refer readers to the full and excellent report from the pen of Dr. Bond, the Medical Superintendent. The type is essentially "Villa." There are nine of these, all of one floor, and one central administration house. The inhabitants apparently are to some extent classified, as one villa has a larger staff of ordinary attendants than the others. The foundation of the staff in each villa is a married man and his wife, to which are added attendants as may be necessary. Some of the colonists are females, and do much of the cooking, etc., in the central block. The staff is a heavy one in consequence of the necessity for night supervision, but during the day a very considerable amount of liberty is given, which, in spite of Dr. Bond's belief in liberal treatment, must entail a heavy sense of responsibility on him. The object of the institution is to get as much work out of the patients as possible, not so much for its intrinsic value as for the benefit to be expected from regular occupation. Medical treatment is, of course, practised to a large extent, Dr. Bond chiefly relying on bromide of strontium, as being in his large experience rarely followed by eruptive, soporose and other unpleasant effects. The metric system is being given a trial in the surgery. The method of taking notes of cases is elaborate, and depends on the principle of keeping all record-sheets and charts where the patient may happen to be. The statutory entries in the case-books are made from the notes. We feel regret that in these notes we cannot give such a description of the colony as it merits. Perhaps Dr. Bond will be able some day to elaborate his report for the JOURNAL into an independent document.

Long Grove Asylum.—This asylum is to be built on the Horton estate. It is to be mainly on the lines of the Heath and Horton Asylums, but with a considerable provision of villa accommodation. There are to be two "acute hospitals" for fifty patients each, two "convalescent" villas for twenty-five, two "chronic" villas for sixty, and two "working patients" for sixty-five patients each.

Statistical tables.—As usual, those for each asylum are collected and summarised at the end of the Report. They are carefully compiled in the forms of the Association as at present authorised with certain amplifications in individual asylums. These amplifications, though of great use in respect of the statistics of the individual asylums giving them, have unfortunately the effect of making a summary impossible in just those tables which are of the principal interest not only to alienists but to the public in general. We refer to the "cause of insanity," the "cause of death," and the "form of insanity on admission" tables. The percentages of recoveries on admissions (deducting transfers) are also not summarised in Table III, but this apparently is for another reason. It is much to be hoped that the fresh departure in statistics which is to be made soon by the Association will secure such unanimity as may permit of the formation of returns dealing with the whole asylum population of the Metropolis. At present we fear that the great labour entailed in compiling these tables in the individual asylums is practically wasted from want of collation. If all the asylums had an approximately equal division of cases between them in respect of the nature of the mental disease there would be little to say. But when we read that applications for 4418 patients were received at the central office and there allotted to the various asylums, it is not too much to suppose that some selection must be practised, and if this is the case no individual asylum would furnish statistics that could be usefully compared with those of either of its sister asylums, still less with those of asylums outside London, drawing a fair average of all sorts and conditions of insanity from all sorts and conditions of total population in its area. And after all it is only through comparison that useful lessons can be drawn from statistics.

In addition to the ordinary tables which are to be found in the collection above referred to, Dr. Bond gives in his report some additional ones, chiefly in correlation of the epilepsy justifying the admission to the colony with the mental disease. His notes on these tables are very instructive. But beyond these he gives one table of "causal factors and associated conditions found in the admissions" which has been worked out on the system which has been proposed to the Association by the Statistical Committee. The insertion of actual figures renders the purpose of the table much more plain, and it is worth referring to by those who are in doubt as to the method of using it.

Metropolitan Asylums' Board Asylums.—These do not, of course, come strictly within the scope of County Asylums, but as complements of the London Service of the Insane they should be reviewed here. The point that first arrests attention, not only in the Committee's

report, but in those of the respective Medical Superintendents, is a strong complaint of the increasing amount of infirmity accommodation rendered necessary by the advancing age in the admissions, resulting in more infirmity. Dr. Elkin calls it "dumping" from the workhouses. The latter held only about 300 cases in all London at the end of last year, so that the increase in these burdensome patients, complained of alike by the County Council Asylums and by those now under consideration, would appear to be due less to a process of selection, as commonly suggested in other areas, than to an absolute increase of senile insanity requiring institution care.

With regard to a suggestion to extend the "absence on trial" sections of the Lunacy Act to their charges the Committee's report expresses this sensible opinion :

Cases which would benefit by absence "on trial" form so very small a proportion of the population of the Managers' asylums as not, in our opinion, to justify the trouble which would be involved in the alteration of the present conditions. It has been urged that such an alteration might enable vacancies to be created "by the possible discharge of borderland cases who had improved under treatment, and gave little or no trouble." We feel, however, that if there are any such "borderland" cases in the Managers' asylums (and we think there cannot be many) they should either be retained for further treatment, or be transferred to a lunatic asylum to receive the benefit of curative treatment there.

Tooting Bec Asylum.—This has got into regular working order, and we are pleased to see that the Commissioners on their first visit expressed their appreciation of its condition. Dr. Beresford states that the local coroner attaches much importance to holding inquests in asylums, not only for the protection of the public, but also for that of the staff.

Leavesden.—Dr. Elkins is able to report that the deaths from tuberculosis in proportion to average number resident have fallen from 5·46 *per cent.* in 1900 to 1·94 in 1903. He does not say so, but we imagine that this satisfactory reduction is entirely due to the very effective measures he adopted when he preached the crusade to which we made reference a few years back.

Rochester House.—Dr. Shuttleworth, the visiting expert, continues to report very favourably of the results obtained in following out the treatment of improvable imbeciles on lines carefully laid down when the house was first instituted. He sees much progress made in the mental condition of many patients brought about by carefully graduated manual employment. Miss Hargreaves, the very capable mistress, is able to show practical results of a definite nature. The work of patients has enabled her to dispense with the services of seven female servants and an assistant gardener. We feel that much gratitude is due to the Board for making these pioneer experiments, which must hereafter be of the greatest service when public opinion calls for similar efforts being made by other authorities.

The statistics of the various asylums are given and summarised strictly in the form prescribed by the Association. We hope some day

to attempt an analysis of these, especially in relation and in contrast to those of the Council asylums. The bulk of London lunacy is enormous—close on 24,000 at the commencement of this year, and it is almost entirely covered by uniform statistics. It would therefore appear that this area is peculiarly well suited for seeking instruction such as can be gained from statistical inquiry.

Norfolk County.—The new accommodation which has been in hand for some time has now been completed, and some of the spare beds have been offered to Great Yarmouth Borough. The patients of the latter have hitherto been sent to Ipswich, to the inconvenience and extra expense not only of the ratepayers, but also of the friends. Dr. Thomson is glad to get some profit from these cases, but, as he points out, it is accompanied at once by the substantial increase in the number of general paralytics. We note that, while formerly there was comparative immunity in respect of such, more than 10 *per cent.* of the male admissions suffered thus. One recovery of a male general paralytic is recorded.

Nottingham City.—The long experience of Dr. Powell gives force to the gloomy picture which he draws of the insanity of his area.

It seems to me that, as the years go by, the character of the disease with which we have to contend is becoming less and less amenable to treatment, and consequently our recovery-rate is diminishing. I mean by this, that the proportion of incurable cases, such as congenital imbeciles, epileptics, general paralytics, organic dement, and senile cases, to curable cases, is steadily growing greater. Out of 160 cases admitted last year, 66 belonged to this category, so that only 94 (or 58 *per cent.*) presented any chance of recovery.

With regard to the causes of insanity, the outstanding feature was the large number due to adverse circumstances and mental worry of various kinds. This, I think, is mainly attributable to the fact that trade has not been so good, and employment less regular. Eighteen cases were directly caused by drink, and again I have to record the fact that almost as many women became insane in Nottingham from this cause as men.

More deaths occurred from general paralysis than from any other disease, numbering just 25 *per cent.* of the total.

Staffordshire (Cheddleton).—Dr. Menzies is of the opinion that careful examination of admissions for possible phthisis would give results likely to discount the prevalent idea as to the asylum manufacture of the disease. He has begun an active campaign against tubercle, using two wards for segregation, which is of a very thorough character. It would be interesting to hear what may be the mental effect on patients, who can be affected, produced by their being placed in a ward notoriously devoted to the treatment of this grave condition. The discovery of about 28 *per cent.* of syphilitised patients among his 106 male admissions is evidence of extreme care in examining these. More than one third of the admissions of both sexes had an alcoholic history. General paralysis accounted for 23 *per cent.* of the male admissions and over 20 *per cent.* of the deaths.

Suffolk.—Dr. Whitwell breathes a sigh of relief on the completion of the long and serious task of rehabilitating an asylum which had sunk far below efficiency. The county is now provided with accommodation which should be sufficient for several years. An excellent chart of the county is given, whereon are marked with red spots the origins of all the cases in the asylum, much as the Metropolitan Asylums Board show the occurrence of various zymotic diseases. The idea is a good one.

We quite agree with him in the following opinion :

The prevalent idea appears to be that the value of paid labour outside an asylum is greater than that of patients inside an asylum ; this is part of the great misconception of mental disease that is doing so much harm in the world. The fact is that the labour of many of our men is of a very high value ; we who have seen so much contract work done are able to appreciate the difference perhaps the more readily. About 76 per cent. of the patients are employed in useful work.

East Sussex.—This is the first report of the new asylum recently built by the county on dissolving partnership with Brighton. The organisation has been a heavy task for Dr. Taylor, the Superintendent, but he has the satisfaction of having gained appropriate acknowledgment from both the Committee and the visiting Commissioners. As so many of the admissions were those of patients brought to their new home from other institutions, the medical details do not yet present any points of great interest. We note, however, that colitis has appeared, it being in every case imported. One of the male wards has been entirely staffed by nurses, and this has proved in every way a success. As is generally known, a feature of this asylum is the hospital for recent and curable admissions. We are glad that Dr. Taylor is enabled to write of it as follows :

The question of how to deal with the recent and curable insane is one which has long engaged the attention of alienists and those whose duty it is to provide accommodation for this class. All are practically agreed that they should not be mixed in an ordinary asylum with those who are chronically insane and therefore past recovery, and many plans have been suggested to solve the problem, but in my opinion a hospital similar to the one here is, of all plans suggested, the best. It meets the difficulty of compulsory detention and yet provides for the patients being kept separate from the asylum proper, and at the same time ensures skilled treatment by physicians specially trained for this branch of medicine.

A special feature of the hospital is the recreation room, which is used almost nightly, and where the two sexes meet for concerts, dances, etc., and these social meetings undoubtedly exercise a very beneficial effect on the patients and aid their recovery.

West Sussex.—The subjoined extract from Dr. Kidd's report deals with a subject of rapidly increasing importance. With it may be read conveniently the quotation from the Wilts report (given on the next page) :

During the past year there has been some correspondence with the Commissioners in Lunacy on the subject of the transfer of patients from the pauper to the private list. The committee have fixed £1 1s. as the lowest charge for private patients under section 271. The question which arose was, "Is a patient admitted as a pauper, whose friends are paying the Guardians the full maintenance rate or any sum less than twenty-one shillings per week, entitled to be reclassified as a private patient?" The law is not clear upon the subject, but it appears to

be evident that the committee need not *retain* a patient on the private list at a less sum than that fixed by them, and this committee settled the particular question by a resolution to that effect. Under existing circumstances it is very desirable to limit the number of private patients in this institution. But the Commissioners in Lunacy justly urge that "not infrequently the friends are willing and desirous to pay what they can afford to avoid the stigma of pauperism, and this is a feeling which seems worthy of encouragement, as tending to the public advantage." This "stigma of pauperism" is a grievance which is not confined to the class included above, and is felt acutely by many who, although their friends are unable to afford even the ordinary maintenance rate, have always been up to the time of the onset of illness able to earn their own living, and who, upon recovery, become useful workers again, and could neither before nor after be justly styled "paupers." This matter is one of the evils arising from an antiquated law which forces persons who happen to be suffering from a particular bodily disorder, and who are not paupers, into a special hospital which is classed as a pauper institution and dubbed a lunatic asylum.

In spite of all statements to the contrary, it is very certain that the fixing of the point of passage from "private" to "pauper" is entirely within the option of each individual Committee. Each of these bodies has to consider and decide how much shall be added to the weekly charge for lodging money, for repairs, for contingencies of pensions, and so on. Some may think that whatever may be the expediency, ordinary justice demands that no difference shall be made between the claims of the county and the union; while others may, on the contrary, hold that expediency must override abstract justice. It is a pity that in such an important matter there should be any divergence of practice. But it is evident that the sting is in the name, and not in the feeling of being helped to defray costs, which, as we have frequently pointed out, are incurred in the interests of the public as well as for the benefit of the individual. If, therefore, some name—"public" for instance—could be found to replace that to which so much objection is raised, the chief difficulty would disappear.

Warwick.—In reference to the excess of sickness on the female side reports to the Committee as follows :

The overcrowding in the asylum is much more keenly felt in the female division than in the male. Since the provision of the covered airing court on the male side, every patient, other than those in the sick ward, has spent at least two hours in the fresh air on every day in the year. When the wards are empty all windows are opened to the full extent so as to allow of the free circulation of fresh air. This is, I feel confident, a great safeguard against the effects of overcrowding, and I should much like to see similar provision on the female side, and trust you will give the matter your early consideration.

Dr. Miller recommends the Committee to consider the provision jointly with other authorities of accommodation for the many imbecile children who otherwise will continue to be warded with adults. But he is very desirous of seeing that, instead of one building containing all, the children should be placed in a series of cottages, as classification would thereby be rendered more easy.

Wiltshire.—The following is the extract referred to above :

There have been at one time or another during the year thirty-six paying patients in residence, the charge made varying from fifteen shillings to twenty-

five shillings per week. All these patients are persons who, it is understood, if the committee decline to receive them as paying patients, would be sent to the asylum as paupers through the Guardians in the ordinary way, and the committee have rigorously adhered to the regulation which they some time since laid down in this connection. The committee, in pursuance of a suggestion made by the district auditor on the occasion of his recent audit, have recently gone into the question of what sum should be charged in respect of these patients towards housing and other expenses not covered by the ordinary charge made for the maintenance of pauper patients, and have fixed it at four shillings a head per week.

Dr. Bowes announces in his report the first epidemic of dysentery that has occurred in the asylum. It attacked twenty-eight patients, five of whom died. He suggests overcrowding as the possible cause. In the light of the remarks of Dr. Bevan Lewis given below, and of others, we should suspect importation.

Yorkshire (Wakefield).—In writing about an epidemic of colitis in this asylum Dr. Lewis makes the subjoined remarks :

As regards the etiology of this disease which has created so much attention of late years, I cannot help thinking that fallacious views have been advanced which are likely to blind our eyes to the true factors of its incidence and spread in asylum life. Amongst the several causes assigned for its prevalence in former years defective drainage, impure water supply, overcrowded buildings have all been drawn upon to explain its occurrence amongst asylum inmates.

In most large asylums, as is the case with Wakefield, all these supposed factors have long been eliminated; the drainage has been remodelled, a pure water-supply has been assured, overcrowding has been remedied, *yet colitis reappears*. Quite recently the Lunacy Commissioners have had to call attention to the fact that severe attacks of colitis have occurred in *recently opened* institutions, where the sanitary conditions were presumably of the most modern type.

As a predisposing cause he fixes on the complete neglect of personal hygiene on the part of the more demented patients, leading to constipation, which renders the bowel peculiarly vulnerable to the attack of the specific microbe, and at the same time provides a nidus for its growth. In this belief he treated the whole of his 970 male patients with a weekly dose of saline aperient, the result being as follows:—Whereas in the preceding twelve months there had been sixty cases of colitis, in the next six months there were but two, and none at all have occurred thereafter. The females had not been long enough under the treatment to provide so complete a similar test, but the results so far seemed to have been very encouraging. The results of treatment of selected cases in the new electrical department have been very satisfactory, twenty-four out of thirty-six cases systematically treated having recovered.

Some English Registered Hospitals.

Holloway Sanatorium.—The great benevolent work done by this institution is summed up in the following modest words of Dr. Moore :

During the year there was a daily average of 194 patients resident in the Hospital at rates of payment considerably below the rate of maintenance, and I am able to repeat the statement I made in a former report that no application for admission was refused on account of the applicant's inability to pay the ordinary rate.

Dr. Moore considers that with accommodation for about 400 the institution has reached its proper limits, and he thinks that the Committee have arrived at the same conclusion. He states that, though there are fewer beds than in 1893, yet during the last five years £23,000 was spent in additions and improvements.

A feature of the report is the record of the excellent work done by a capable sub-committee in drawing up a comprehensive scheme for the prevention of fire and its treatment when it does occur. This report we can warmly recommend to the perusal of all who think about such matters. It was soon, and most thoroughly, put to the test by a serious outbreak, which resulted from the roof being set alight during a thunder-storm. The assigned probable cause was that the electric current entered the telephone wires which run in the roof, then jumped to some nail, and, in the process, ignited rubbish collected by birds. If there had been proper "arresters" the engineer consulted thinks that no harm would have arisen. The latter authority seems to be doubtful as to the utility of lightning conductors, and he thinks that, unless they are to do more harm than good, their proper insulation should be most carefully attended to from time to time.

The Retreat, York.—Dr. Bedford Pierce records the institution of a new form of reward to attendants who make themselves proficient in the art of nursing the insane. It is the Tuke Medal, instituted in honour of the founder of the Retreat. The medal bears, on one side, a representation of the face of that honoured man. It is given after four years' training, and, though it is not so stated, we presume that it is only given to those who have already gained the Association's certificate, for we find that all those to whom the medal was presented are certificated by the Association. We think that the idea is a most excellent one. Dr. Pierce makes a great point in training nurses for work outside the asylum itself. He finds that these are much valued by the general public, and he does not put any on the list but those who have had at least three years' training in the Retreat itself.

Some Scottish District Asylums.

Argyll and Bute-Lochgilphead.—Dr. Cameron's statement of the facts about his admissions contains some striking items. They numbered seventy-three. No less than twenty-two were readmissions. The average duration of absence from the asylum was five years and five months. The average age on admission was forty-eight—eleven were from sixty to seventy, five from seventy to eighty, and four over eighty. No general paralytic has been admitted for three years. One case recovered after more than twenty years' residence. Adverting to the system of boarding out, Dr. Macpherson, the visiting Commissioner, states in his report that the average annual removal of cases in this way is 4 *per cent.* over all Scotland during the last ten years, while here it is only 2 *per cent.* The great distances in these counties, however, are a real hindrance both by the expense entailed in removing and in bringing back in case of non-success. The population of the area is rapidly diminishing, but this does not bring relief to the asylum.

Glasgow District, Gartloch.—This report, as usual, contains many points of interest. The admissions have fallen from 285 to 251. Dr. Parker gives as a probable explanation that trade had been bad with the usual result—that of lessening illness. In dealing with the question of boarding out he states that while there are undoubted advantages in saving asylum room and in doing what is right to patients capable of enjoying the relaxation of care, there are some great disadvantages arising from lessened dilution of acuter insanity which quiet old chronics usually supply. This leads to a greater *per capita* expenditure on the residue by way of increased staff, and the hire of outside labour called in to replace that which has been sent away. He thinks that the evident reduction in the phthisis death-rate will probably lead to a new fallacy about the increase of insanity. Care in making particular inquiry about causation has supplied him with some noteworthy figures. Of ninety-six cases, under twenty-six years of age, admitted in the last two years no reliable history was obtained in respect of twenty-four. In other eighteen there was no record of parental alcoholic excess, but in the remainder, fifty-four, there was such a history in the direct line of descent. In fifty-one the history was parental. Thus 78 *per cent.* had the direct alcoholic taint. The same line of inquiry about the other admissions, *i. e.*, those over twenty-six years of age, brought out a percentage of 41 only. What is the cause of this marked discrepancy?

The Glasgow Board, with the help of its medical advisers, has instituted an excellent arrangement with the Parish Council, whereby a system of interchange between the asylums of one body and the hospitals of the other is made available for the nurses of both classes of institutions. Three years' training in the one can be followed by one year in the other. The combined training of four years, which is tested by periodical examinations, qualifies the nurse to enter a final examination for a certificate. The examination is conducted by a conjoint board of the medical superintendents of all the training institutions, and success is followed by an immediate gain of a year's seniority, with the reversion of superior posts falling vacant. Also the attached scale of pay seems to be very liberal. The above scheme is an addition to the Association's. Surely all this care taken to procure the best possible nursing for the sick is most commendable.

Govan District, Hawkhead.—Dr. Watson gives expression to some very strong views as to the recording of alleged causes of insanity in admissions. Though we regret that we can by no means agree fully with him in his conclusions, we feel that it is only right to put them before our readers, for not only are they the findings of a very experienced observer, but they are put as completely and succinctly as they possibly could be put from his point of view.

In Table X will be found the causes assigned in the various cases of insanity. I have on more than one occasion referred briefly to the defects of this method of investigation. Now, however, when a movement is afoot to make this, or a similar, statistical statement compulsory, it may not be inopportune to enter more fully into the question. The *imprimatur* of the State would have a tendency to confer on this table, like the stamp on a packet of patent medicine, an importance out of all proportion to the real value of its contents, and might, by encouraging ill-considered legislation, render it not merely useless, but actually pernicious.

I wish, therefore, to refer to some of the chief fallacies inseparable from such statistics. These are of two kinds: those affecting the observer, and those affecting his field of observation.

With regard to the latter, it may be said that the principal, indeed, almost the only, source of information is to be found in the statements of relatives. Now, taking them in the mass, we cannot suppose that these relatives are superior to the average of the community; in other words, we must assume them to be for the most part persons of untrained intelligence. With them *post hoc* and *propter hoc* are synonymous—what happens to follow is always regarded as the effect of what went before, the result being that in a large percentage of cases some early sign of insanity, such as alcoholic or other excess, is represented to be the cause of the whole process.

It may be objected that, since the relatives of the patient are questioned only about facts, and since these facts are interpreted by the questioner, this danger is insignificant, but every psychologist, nay, every lawyer, knows that the ordinary man's conceptions are so clouded by his emotions and prepossessions as to render his uncorroborated testimony, even in what are called "matters of fact," untrustworthy to an astonishing degree. This is true even of statements made in perfect good faith. But in our investigations we have also to reckon with deliberate misrepresentation. Most people are naturally unwilling to admit the existence of an hereditary taint, and there is consequently a strong tendency on the part of the patient's blood relations to conceal other cases of insanity or allied neuroses which may have occurred in the family.

Finally, the statistician has to contend with the difficulty that his informant, if related by consanguinity to the patient, may possibly suffer from some unconscious bias which makes his evidence more than usually fallacious.

Coming now to the observer, whose duty it is to obtain the truth from these not very satisfactory witnesses, what are the qualifications required?

To exceptional tact in the conduct of his inquiry he should add almost unlimited patience in sifting the material from the irrelevant. Only those who know from experience how greatly the latter preponderates over the former in the statements of uneducated persons can realise the laborious nature of the task. Next, the investigator must be a psychologist in more than name. Without a keen and penetrating eye for character he will be unable to estimate the value of evidence, to discriminate between what is actually true and what his informant merely believes.

But all his psychology and patience will be thrown away unless he chance to possess the rare gift of the scientific spirit. He must be able to rid himself of preconceptions. If he have a theory he must be as quick to see the facts which tell against as those which support it—a feat of which, it is safe to say, not one in a hundred is capable. And he must not lack the imagination to perceive the relations of apparently isolated facts.

Men of this stamp are hard to find, and, without disrespect to an estimable body of men, one may doubt if many medical officers of asylums even approach the standard. As a matter of fact, one knows that the statistician usually sets out to "prove" something, whether it be the fashionable doctrine of the moment or some theory of his own generated in the irresponsible play of his fancy, and regarded by him with paternal but unscientific partiality.

It appears, then, that the personal errors inherent in this process are too great to allow of its yielding valid results. If any real knowledge of the causes of insanity be possible, it must, I believe, be attained by broader methods, such as those employed by Dr. John Macpherson, Commissioner in Lunacy, in his pamphlet on "Insanity in Relation to Fertility."

Much of the foregoing is undoubtedly true, and it is almost hopeless to look for such general accuracy as will render a return fit to be taken up and dealt with as the last word on any of the considerations raised by an ætiological table; and if there were any fear of the public taking, without control by medical authority, any practical steps towards giving effect to possible fallacies, we should counsel the abolition of all cause

tabulation. But there is no such fear, and we very much question whether any one—even a layman—would use given figures except as indications of possible truth. But are we, in despair of being able to arrive at hall-marked conclusions, to abandon the system of inquiry now carried on? And if inquiry is still continued, of what use can it be unless it is rendered in some shape? Would it be right to withhold such statistics as we have noted in relation to parental alcoholism as given by Dr. Parker? We cannot doubt moreover that much scientific inquiry is prompted by a feeling of duty to record all that can be recorded about disease. For instance, the prevalent conviction that syphilis and paresis are most intimately related has probably led to the discovery of syphilis in patients by some careful observers to an extent which at least suggests that a vast amount must be overlooked from want of persistent inquiry. It may be that much of our work in regard to ætiology is wrong and loose, and that it may continue to be so for years, but truth can only come eventually through present errors, and by seeking to correct these latter step by step.

Roxburgh District.—Dr. Carlyle Johnstone continues to drill into his Committee the evils of overcrowding as revealed by an unenviably high mortality from phthisis at Melrose. Apparently he is meeting with some success. He also insists rightly that the want of suitable accommodation for poor private cases entails hardship on many respectable people and is wasteful of public money, which has to be found since private contributors are turned away. Sixty-four *per cent.* of the discharges, other than transfers, were sent out on probation. Dr. Johnstone highly commends this practice, because the ease with which a patient can be returned if not getting on well under milder supervision tempts authorities to withdraw their patients who do not require asylum care. At the same time the patient has some supervision which does not interfere with his doing work.

Some Scottish Royal Hospitals.

The Crichton Institution.—The important event of the year has been the completion of the new houses for receiving admissions. The plan adopted is a variation of the general idea of treating such cases apart from the main bulk of the asylum population. Four of these houses, two for each sex, have been built for those classes of the insane who at Gartloch, Hawkhead, and other recent asylums are congregated in the two sides of one hospital; that is to say, all cases demanding medical treatment and nursing for either bodily or mental infirmities are thus set apart. Here, however, two of the houses are devoted to the bodily sick, the other two being for the admissions of all sorts; in fact, they are receiving houses. We think that this is certainly an improvement, in so far that while medical supervision can be constantly and conveniently given to all cases that may require it, the sick in body, who often represent the hopeless wreckage of mind, are shut off from the recent cases, who include those having the best chance of recovery. But we are not quite sure that the taking in of every case that arrives

is not likely to be a detriment to the leading idea of promoting recovery by specialised treatment of those only who present a possibility thereof. It undoubtedly is more convenient to the administration to pass all cases through one portal as it were, but obvious dementia would not appear to have a claim to be mixed up, even for a short time, with those who come for cure. However, the results of treatment under the various circumstances will be most interesting to watch, and gratitude must be felt to all who have the enterprise to follow up this great departure of latter days. We should add that the treatment is essentially that of a hospital; the patients are put to bed and kept there till declared to be fit for getting up. The nursing is entirely done by females.

Edinburgh (Morningside).—This asylum must surely create a record by admitting a male of ninety-eight years of age. The necessity for removal from home or elsewhere bespeaks a remarkable vitality in this case. An epidemic of dysenteric diarrhoea was traced to the sewers disestablished five years back. These had not been efficiently disconnected from the surface water drains, through which the poison found its way. When the necessary steps had been taken the epidemic quickly disappeared. Dr. Clouston gives a most interesting *resumé* of his thirty years' practice at Morningside. Tables I, V, and XI are worked up in decades and then summarised. 11,346 admissions have been dealt with, while 4439 recoveries and 2630 deaths have occurred. A tale of sad deterioration in material is told by the dwindling of a 45 *per cent.* recovery-rate down to 36; by the rising of deaths from 8·7 to 11·9; by a percentage of mortality from diseases of the nervous system growing from 53 *per cent.* to 67 *per cent.* It is curious that the mortality from both tubercle and general paralysis, while it has in the third decade sensibly increased in comparison with the first, showed a distinct amelioration in the second decade. But, as touching the latter disease the female deaths show a steady increase all through, being 7·5, 9·7, and 12 *per cent.* in the respective decades. In the course of the thirty years this disease caused 50 *per cent.* more deaths than tubercle, but taking the male sex alone it was nearly three times as fatal. The forms of insanity in those admitted have for the special table been made up on the lines of Skae's classification. Restating the total admissions at 11,346, we find the assignation of particular forms in the following numbers:—Alcoholic insanity holds pride of place with 1644, adolescent insanity 1102, climacteric insanity 961, senile insanity 915, while general paralysis claimed 887. Idiopathic insanity, though so returned in 930 cases shows a marked decline in ratio of late years. Probably some change of ætiological views may be inferred from the fact that in the first decade twenty-four cases were returned as labouring under amenorrhœal insanity, while no case is shown in either of the last two decades. Then, too, myxodœma claimed no cases in the first, nine cases in the second, and only two in the third. These tables are undoubtedly of great value and interest as a record of asylum history, and indirectly of the area from which the inmates are drawn. To the public at large it will be a matter of deep interest to know that among

the many thousands deprived of their liberty only six were discharged as "not insane."

Montrose.—Dr. Havelock; in dealing with ætiology, states that after making special inquiry into the histories of all his admissions he cannot find such a proportion due to alcohol as some others find.

It would be a most unfortunate matter for the insane if public opinion were so directed as to regard the inmates of asylums as a class who had in the main brought on their sad infirmity by vice and drunkenness.

If such were the case, we should regard the vast expenditure of money which has been given ungrudgingly to ameliorate their condition as worse than wasted.

Further, admitting its baneful effects in heredity cases he writes :

The moral to be drawn is that those who are hereditarily predisposed to mental disorders must be strictly temperate in the use of alcohol; the majority, perhaps, should keep on the safe side and abstain entirely. And it should be borne in mind that the individual who asserts that in his family there is absolutely no history of any form of insanity usually speaks with a very limited knowledge of his pedigree.

We note that nursing by females of the cases in the male wards of the hospital is to be reintroduced. When these were first opened they were staffed by nurses only, but it was not found to be a success. Now it is to be tried again in view of the advances made in the care of patients.

James Murray's Asylum, Perth.—Dr. Urquhart states that the female admissions are steadily decreasing, in spite of there being plenty of room. It is difficult to account for this fact, which is contrary to the usual experience. In reference to a particular case he makes use of the term "communicated insanity," about which we have remarked before. In these days we have to be on our p's and q's as to terminology, and we think that this is not an admissible form unless we clearly define what is meant by it. The mere fact that a case is impressible even by contiguous insanity would suggest prior impressibility sufficiently morbid to come very near insanity itself. Given that, it is arguable that it is a matter of undoubted interest, but not of scientific value, that the last straw should be insanity in a neighbour. We consider that the term is open to misconstruction.

Dr. Urquhart gives a large amount of *parole* which is practically never abused. He thinks that in such an institution *parole* is a better index of freedom than the number of unlocked doors.

He gives an interesting history of the forty-seven attendants and nurses who have gained the Association Certificate. We tabulate it :

	M.	F.
Left for private nursing	2	5
Left to be married	—	3
Left for general hospital nursing	—	11
Left on promotion elsewhere	2	2
Left, reason not assigned	3	5
Died	1	—
Remaining	6	7
LI.		13

Part IV.—Notes and News.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

ADJOURNED ANNUAL MEETING and GENERAL MEETING, held at No. 11, Chandos Street, Cavendish Square, London, Thursday, November 17th, 1904, Dr. R. Percy Smith, President, in the chair.

The following members were present:—Drs. Robert Baker, Fletcher Beach, C. Hubert Bond, David Bower, Arthur N. Boycott, Geo. Braine-Hartnell, John F. Briscoe, W. Crochley Clapham, Robert H. Cole, Maurice Craig, Francis G. Crookshank, George J. Eady, Robert A. Graham, Charles K. Hitchcock, David Hunter, Theo. B. Hyslop, J. Carlyle Johnstone, Robert Jones, Walter S. Kay, Richard J. Legge, Evariste Laval, Henry C. MacBryan, Peter W. Macdonald, S. Rutherford Macphail, Charles A. Mercier, James Middlemass, Alfred Miller, Cuthbert S. Morrison, H. Hayes Newington, Bedford Pierce, L. Parsons, Evan Powell, Henry Rayner, George E. Shuttleworth, R. Percy Smith, James Stewart, Robert S. Stewart, Rothsay C. Stewart, Frederic R. P. Taylor, Frederick Watson, Lionel A. Weatherly, Edmund B. Whitcombe, Ernest W. White, T. Outterson Wood, James R. Whitwell, David Yellowlees. *Visitor*.—C. Hayes Newington.

The PRESIDENT.—Gentlemen, this is the adjourned annual meeting of the Association, and therefore I will ask the Secretary to read the notice summoning this meeting.

Dr. ROBERT JONES (Hon. General Secretary) read the notice, as follows:

“The Adjourned Annual Meeting of the above Association will take place, under the presidency of Dr. R. Percy Smith, on Thursday, November 17th, 1904, at 3 o'clock, at 11, Chandos Street, Cavendish Square, London, W., to consider and deal with the Reports of the Statistical Committee.”

The PRESIDENT.—Dr. Jones will now read the views of the members who are unable to attend to-day with regard to these statistical Tables.

Dr. JONES.—It is not easy to read these, because they refer to the Tables. The first is from Dr. Menzies, of Cheddleton Asylum, Staffordshire.

I had a letter this morning, dated November 15th, from the Honorary Secretary for the Irish Division. I am sorry these have not been received in time for me to hand them over to the Statistical Committee, but the President informs me that copies have already been before the Committee. I received my copy from the Irish Division this morning.

The PRESIDENT.—I think it is embodied in the Report of the Statistical Committee. It seems hardly necessary to read it again.

Dr. MERCIER.—But the Meeting has not heard it.

Dr. CARLYLE JOHNSTONE.—Shall we be having it from the Committee?

The PRESIDENT.—That is a Report from the Irish Division. The Reports of Divisions were to go direct to the Statistics Committee.

Dr. MERCIER.—Surely there is no reason why we should not hear them.

The PRESIDENT.—You will hear them again from the Statistics Committee.

Dr. YELLOWLEES.—You will find the Report embodies them and gives in detail the views given by the different Divisions; we have been careful to do that. But we have a number of communications from individual members, some of them of great length. We as a Committee have carefully read these letters; we cannot read them all to you, but we have given them full consideration and full weight. You will presently hear in our Report what the Divisions say.

Dr. CARLYLE JOHNSTONE.—Is it fair to the people who have been invited to send their views if you are not going to take the trouble to read them?

Dr. JONES.—Perhaps the President will allow me to make a personal explanation. Not infrequently, just before a meeting I get a wire or a letter of apology from individuals who are unable to be present. To such members, on my own responsibility, I issued this footnote at the end of the notice: “If any member is

unable to attend, his or her views are invited in writing, addressed to me, and the same will be presented to the Meeting." I have already done so in respect of the only one who has done this, Dr. Menzies, of Cheddleton.

Dr. CARLYLE JOHNSTONE.—Have you a letter from Dr. Urquhart ?

The PRESIDENT.—Yes ; but I think these individual letters should come as part of the debate. This Annual Meeting was adjourned so that the Divisions might have an opportunity of considering the Report of the Statistical Committee and reporting to that Committee ; the Statistical Committee to bring up another Report. I take it that our first business undoubtedly is to hear the Report of the Statistical Committee. (Hear, hear.) I call upon Dr. Bond, the Secretary, to make his Report.

Dr. BOND read his Report, as follows :

The Statistical Committee begs to bring up a further Report, as directed at the Annual Meeting.

It met yesterday and considered the valuable reports from the divisions on the discussions at their late meetings. Also the Committee attended to considerable correspondence from private members.

With regard to the Divisions, the Committee found as follows :

The South-Eastern Division has reviewed the tables as far as Table II, Discharge Group.

The South-Western Division has reviewed the Register and all the Tables.

The Northern and Midland has reviewed the Register and all the Tables except those of the Death and Residue Groups.

The Scottish Division has reviewed the Tables as far as Table VI, Admission Group.

The Irish Division has presumably reviewed the Register and the Tables.

In consideration of the above-mentioned facts, the Committee, though it thinks that by the adjustment of several minor recommendations, it can secure the entire acceptance of their proposals by the South-Western and Irish Divisions, and by the South-Eastern and Northern as far as the latter have covered the ground, is of the opinion that further opportunity should be given to any of the Divisions who may desire it, for making additional representations.

Having this in view, the Committee suggests to this Adjourned Annual Meeting that it further adjourns itself to the time and place to be selected by the Council for the General Meeting in May, 1905. By this time the Divisions will have completed their Spring meetings. Unless unexpected difficulties arise the Committee will then propose that the new Tables and Registers as a whole should be approved and adopted.

Looking to the very large scope for discussion to-day, the Committee thinks that it will conduce to useful progress being made if some method of procedure be adopted at the outset. It recommends the following :

That, in the first place, the principle involved in altering the Register be considered, and, if approved in the usual way, that it be finally adopted by the Association.

That, next, the details of the foregoing alterations be considered, and if they appear to commend themselves they be provisionally approved. The Committee has reason to believe that though it has arrived at conclusions itself, a rigid adoption of them now might cause difficulties later on.

That, thirdly, the arrangement of the Tables into "General" and "Group" be considered, and, if approved, finally adopted by the Association.

That, fourthly, the Tables be taken *seriatim*, and that as each one is taken the comments on it made by the Divisions and the Committee and others be given. That if a short discussion reveals the fact that an individual table is accepted generally, it should be provisionally approved and brought up again at the Adjourned Meeting for final adoption, but if serious and weighty objections be displayed against it, the discussion thereon be adjourned to the adjourned meeting ; each member being invited to forward to the Committee any views that he may have.

The Committee will itself report to the Adjourned Meeting.

The Committee thinks that by this procedure a definite commencement will be made towards giving effect to its proposals, as amended or not. It considers that while every opportunity should be afforded for an endeavour to bring all into

reasonable accord, yet it would be not only inconvenient but also prejudicial if questions, however important, were to be kept indefinitely open on account of a minority not being of the same opinion as the majority. It thinks that by proposing the adjournment of this meeting with a view to a final settlement in May it is proposing such full opportunity, and it asks with some confidence that it may be allowed to look forward to a definite time when it shall be relieved of its somewhat arduous duties.

The Committee is glad to be able to report that, having referred their work to the able Asylum statistician, Dr. Chapman, it has received from him an expression of general approval. This in itself is a guarantee that its proposals are at least practicable and free from the possibility of statistical fallacy.

Dr. Chapman has suggested that the Tables, though still being disposed in groups, shall be numbered consecutively. The Committee readily falls in with the suggestion.

The Committee is able to recommend the treatment of one thorny subject in such a manner as to lead to its appropriate discussion hereafter and to prevent at the present time it being a serious and lengthy hindrance to the final settlement of the Tables. It refers to the question of the Forms of Insanity. The Northern and Midland Division has made the valuable suggestion that Table IV, Ad. Group, be accepted for the time, and that the next Annual Meeting be moved to appoint, if it thinks fit, a special Committee to study the whole question of Classification. When the Report of this Committee is received and adopted then such new terms and forms as it provides can readily be substituted for those now in use. No statistical difficulty or disarrangement in the proposed Tables will be thereby caused.

The PRESIDENT.—The first recommendation the Committee makes, which is very important, is that it would conduce to useful progress if some method of procedure could be adopted at the outset. And the Report makes certain recommendations. First of all, that we should approve the principle of the Registers, and then the details, and, thirdly, the arrangement of the Tables into general and into grouped Tables. Fourthly, that the Tables be taken *seriatim*. I think it will clear the ground to some extent if we do this. So I should like to know what the sense of the meeting is as to this general procedure. In the first place, there is the proposition that the principle involved in altering the Register be considered, and, if approved in the usual way, be finally adopted by the Association.

Dr. YELLOWLEES.—Mr. President, it is my duty to move *seriatim* the proposals made in the Report which has been read by Dr. Bond. I do not know whether on one reading all present have fully taken it in. It was found that several of the Divisions have not yet fully reported, and we, as a Committee, are extremely anxious to avoid the slightest appearance of trying to rush this matter. We want it to be as generally acceptable as we can possibly make it. Therefore it seemed to us that another series of divisional meetings should complete the revision and inundate us, if they so wish, with further suggestions; we shall thus obtain, and shall try to embody, if practicable, the views of the whole Association. What we shall ultimately lay before you at the adjournment of this meeting will, I hope, commend itself to you, for this seems the only way to come to an end of our work. It has been a very long and laborious work, and we are anxious to see the end of it. It seems to us that if you accept this suggestion each Division can complete its revision and send us their views. We have accepted a number of suggestions from the Divisions, and examined all of them. Some of them had been discussed by us already, and for various reasons were not approved. As a Committee, we are anxious that our work should be fully completed, and that there should be no appearance on our part of trying to thrust upon the Association any conclusion or opinion of our own. I have, therefore, first to move that at the end of the present sitting this meeting be adjourned until the date fixed for the meeting in May, by which time the different Divisions will again consider the Tables and complete their revision. In the light of their further suggestions we shall again revise the Tables and be able to present them to you in their completed form. I beg to move accordingly.

Dr. BOND.—I second that.

The PRESIDENT.—The motion is that this adjourned Annual Meeting be further

adjourned at the end of the present sitting to the time and place selected by the Council to meet in May, 1905.

Carried unanimously.

Dr. YELLOWLEES.—I rise again to move, in the name of the Committee, our next proposal. I ask you to excuse my frequent rising; the prominence is official, not personal. I have to move a resolution which I hope will appeal to you, because to us, as a Committee, it is the very backbone of our work. It concerns the Registers. I am not sure whether the Association has fully appreciated the great step that has been taken in the preparation of these Registers. It will obviate the great rush of work at the end of every year, because the work will be done throughout the year, and the summation of it at the end will be merely a clerk's work. There need be no more laborious hunting through case-books at the end of the year. The whole of the Asylum Tables will be constructed from the Registers as now arranged. I think that a very great gain. The English Commissioners have accepted these Registers provisionally, and practically *in toto*. We had a number of suggestions from them, and they had a number from us, and after a long conference the matter was so arranged that I can say these are provisionally accepted by them. Moreover, they say that these Registers give them all the information they wish, and therefore I hope you in England will no longer be troubled by a needless Annual Register. I beg to move formally "That the principle of altering the form of the Register be approved and adopted by the Association."

Dr. BOND.—I second this motion.

Dr. CARLYLE JOHNSTONE.—Does Dr. Yellowlees mean the principle of dividing one register into civil and medical?

Dr. YELLOWLEES.—Yes, the principle of the alterations, and expanding the Register in the manner proposed.

Dr. HAYES NEWINGTON.—Dividing also the Discharge Register into discharges and deaths, as in Scotland?

Dr. CARLYLE JOHNSTONE.—Will Dr. Yellowlees tell us what the Scottish Commissioners say about it?

Dr. YELLOWLEES.—They recognise that England is the predominant partner (laughter), and, as Dr. Johnstone knows, they have already separate Registers in Scotland for admissions, discharges, and deaths. The English Commissioners agree to adopt that Scotch principle and to divide the general Register into a civil and a medical Register, and it is that arrangement which this resolution asks the Association to accept and adopt.

Dr. CARLYLE JOHNSTONE.—I have no objection to the General Registers being divided into Civil and Medical, and Admissions and Discharges.

The PRESIDENT.—If there are no further remarks on this matter, I will put the resolution to the meeting. It is: "That the principle of altering the form of the Register be approved and adopted."

Carried unanimously.

Dr. YELLOWLEES.—Next I have to move, again in the name of the Committee, "That the alterations in the Registers proposed by the Committee be provisionally approved." This is a step farther than the mere acceptance of the principle. It implies that we have carried out that principle in details which will be acceptable to the Association. And yet we do not ask you to stereotype those forms and details, inasmuch as it may possibly be necessary to make certain clerical alterations to suit one or other of the bodies of Commissioners. We are anxious not to tie our hands, and yet we are anxious to get, so far, your approval as to the way in which the details are shown. I have said that the purpose of the Registers is to include all the medical facts about every patient, and to include all these medical facts in such a way that they can, with perfect ease, be transferred from the Register into our tables, and that a clerk can do it. The Superintendent, who ought personally to keep this Register, need never trouble about the tables further; a clerk will do them all. Therefore I have to propose, in the name of the Committee, "That the alterations in the Registers proposed by the Committee be provisionally approved."

Dr. HAYES NEWINGTON.—I do not think there need be any opposition to this. It does not tie our hands at all; if this Association provisionally approves the proposal, we know we have the approval of the English Commissioners, and also

that the Irish Commissioners are extremely anxious to be with us. That will represent a large body of opinion, medical opinion, in the United Kingdom, upon which the Committee can reflect with some satisfaction, and go farther. We recognise quite that the Scottish colleagues of the English and Irish Commissioners have not made up their minds on one or two crucial points, and there will still be opportunity for them to give us their advice, and, if possible, alter our views, or to allow their own views to be modified by us. We hope that when we meet next we may be able to say that everybody is in substantial accord.

Dr. BOWER.—Will this be the time to make a suggestion as to the terms used in connection with the discharge of patients, that they should be altered and made more definite? On the Civil Register discharges column, to the right of the black line, the discharges we have to return must be "recovered," "relieved," or "not improved." There are many cases that are improved, but which one could hardly call relieved—at least, not in the sense I take the word "relieved" to mean. I should think very much better terms would be "recovered," "improved," "not improved." I do not make a proposition of it; I am only making a suggestion for the Committee to make a note of.

Dr. HAYES NEWINGTON.—It has been noted by the Committee, I think.

Dr. YELLOWLEES.—Yes, it has.

Dr. BOYCOTT.—In discussing these matters, and coming to decisions on them, what will be the effect upon the discussion of them by the Divisions next year? Will it tie their hands in any way? We are referring many of these things to the Divisions for reconsideration before the next meeting, and yet we are coming to decisions on them now, and we are, or shall be, considering matters which have been decided upon.

The PRESIDENT.—It is the things which we have not been able to decide upon that will be further referred. The object of this adjourned meeting is to have a full discussion of the various points raised both in the original Report and in the further Report on the views of the Divisions which the Statistical Committee was instructed to bring up. So I take it that, if possible, we ought to do as much as we can to settle it to-day. No doubt there will be things which cannot be settled; and I apprehend the meaning of the Committee is that it is principally those things which are not settled to-day which will be reconsidered.

Dr. YELLOWLEES.—That is what the Committee intend. We shall do nothing, and I shall ask nothing that will tie the hands of the Divisions; we shall leave them free to continue their discussion of the Tables. What we ask for now is a provisional approval of them.

Dr. CARLYLE JOHNSTONE.—I am afraid it will be impossible for me to give even that provisional approval of the Medical Register, seeing that the Register embodies Tables 4 and 6, dealing with classification and causation, which in Scotland we will not have at any price.

Dr. HAYES NEWINGTON.—I do not think it really does. It does not matter what you put in those columns; it does not alter the columns themselves. The Table is so arranged that if you have a different system of classification and a different system of causation those columns can be equally well filled up, though with different material. Those Tables, as forms, will stand in the book for anything we agree to put in them.

Dr. CARLYLE JOHNSTONE.—If we are merely asked to express our provisional approval of inserting a certain number of horizontal lines and a certain number of vertical lines in the Register, I make no objection.

The PRESIDENT.—Are there any further observations on this? If not, I will put it to the meeting.

Carried, three voting against.

Dr. YELLOWLEES.—I have next to propose, again in the name of the Committee, "That the general arrangement of the Tables proposed by the Committee be approved and adopted." That means, not the contents of the Tables at all, but the way in which the Tables are arranged. As to whether any certain table should be there or not, that is quite an open question. We have, in arranging them, been greatly tempted to put in others, but we were deterred by the feeling that simplicity was absolutely essential, and that, however desirable they seemed, the probability was that they would not be generally acceptable. We have had much correspondence, I ought to tell you, about Table IIA. Very great importance is

attached to that table by one or two gentlemen of the Association whom we all respect, and Dr. Urquhart has written to us very, very strongly about it. He earnestly prays that Table No. IIA may be retained. We have no objection to it being retained by anybody who likes to retain it; but not more than one out of ten of the present asylums uses that table, and I am afraid that not one tenth of that number compiles that table correctly (Hear, hear). I do not wish to asperse my colleagues, but it is a most perplexing table, and the Committee felt it had not yielded results at all compensating for the labours which it entailed. Therefore we decided to leave Table IIA out, with this proviso, that anyone who wishes to retain it can do so. Dr. Urquhart asks what would be thought of criminal statistics which dealt only with apprehensions without elucidation of the number of persons implicated; the Committee did not quite see the analogy, and thought it best to leave the Table optional. What we lay before you is what we think the minimum that should be done. I ask that the general arrangement of the Tables proposed by the Committee be approved and adopted. There is a division into General Tables, Admission Tables, Discharge Tables, Death Tables and Residue Tables. We had not that division in the old tables, and it seems to give a definiteness of natural sequence, and to be an improved arrangement. Irrespective of the contents of the Tables, I ask you to agree with the general arrangement of the Tables proposed by the Committee.

Dr. BEDFORD PIERCE.—I second that.

Dr. BOYCOTT.—I should like to ask whether that includes a decision as to whether certain Tables are actually to exist. I think Dr. Yellowlees mentioned the fact that they included the decision that all these Tables should actually exist.

Dr. YELLOWLEES.—Unless the Association desires otherwise.

Dr. BOYCOTT.—Some would have to be left out if these were retained.

Dr. YELLOWLEES.—This would not prevent any one being omitted if this Association so decided. We only want a general approval of the scheme of tabulation.

Dr. CARLYLE JOHNSTONE.—Have we any information from the Divisions or individuals with regard to it?

Dr. YELLOWLEES.—All that we have from the Divisions has been favourable to it, except the Scottish Divisions with reference to Table VI.

Dr. CARLYLE JOHNSTONE.—I think the Scottish Division began at Table IV and stopped at Table VI, omitting Table V.

Dr. YELLOWLEES.—The Committee have received two Reports from the Scottish Secretary, one curiously contradictory of the other. I was unable to attend the meeting.

The PRESIDENT.—Are there any further remarks? The proposition is that the general arrangement of the Tables proposed by the Committee be approved and adopted.

Carried unanimously.

Dr. YELLOWLEES.—In the name of the Committee, I have to submit the next proposition, that we now take the Tables *seriatim*, beginning with the first, and go over them all, which is really the purpose for which we are gathered in this meeting. I shall move after each Table has been gone over, and discussed if necessary, that it be provisionally approved; and it will be for you to give or withhold such approval.

Dr. CARLYLE JOHNSTONE.—What does "provisional approval" mean?

Dr. YELLOWLEES.—It enables us, as a committee, to know and understand where we are, and it permits you, as the Association, to alter any of the details if you so desire.

Dr. CARLYLE JOHNSTONE.—Will the Divisions still be able to send in their criticisms and suggestions?

Dr. YELLOWLEES.—Yes; the adjournment is to enable them to do so. We shall be as ready as ever to give heed to the suggestions of the Divisions, and to adopt them if we think they are wise, or respectfully to decline them if we do not.

Dr. HAYES NEWINGTON.—The idea was that if these tables are approved by the very important body of gentlemen now present, who are mostly asylum superintendents and accustomed to tables, substantial, though not final, approval might be expressed, and then there would be some guide to those Divisions where there seems to be some difficulty in coming to a definite opinion.

Dr. YELLOWLEES.—The Secretary of our Committee has, in the most painstaking way, extended the Reports of the different Divisions or given the salient points. If it is your wish he will read them.

The PRESIDENT.—There is no doubt we ought to hear them. This is the time when we should begin to hear them. These are the summaries of the recommendations arranged in the order of the Tables. Therefore, it will no doubt be best to take them after each table.

Dr. YELLOWLEES.—Then I formally move that General Table I be provisionally approved. It has to do with the general population of the asylum, and, therefore, it is rather a popular than a medical Table. To shorten the matter, I should say that certain suggestions have been made to us about this Table, in the way of subdividing it, by giving, in insets, the different classes of patients—private, pauper, and criminal; but the Committee felt that the simplest way was to give the Table and to allow any superintendent to make those subdivisions if he so desired. But really it does not greatly matter who pays for a patient, or whether he is a private patient or a pauper. We are giving here simply the movement of the asylum population, irrespective of class. I can understand that many men will like to differentiate the classes, and it is open for them so to do. The Tables are not made of cast metal; but whatever is added must not interfere with the essential object of the table. With that explanation, I beg to move that this meeting provisionally approve of General Table No. I.

Dr. HAYES NEWINGTON.—I second that.

The PRESIDENT.—I think Dr. Bond should give us the opinions of Divisions on that.

Dr. BOND.—The only comment was the one which the Chairman of the Committee made clear, namely, from the South-Western Division. That is to say, they propose that certified cases be differentiated into private and rate-paid. In connection with this "the Committee agree to recommend that asylums which have these two classes do so differentiate them if they wish. In the light of this suggestion they now recommend that, throughout the Tables, such differentiation be only optional, omitting it, therefore, as obligatory in Discharge Table I."

The PRESIDENT.—The proposition is that the asylums which have these two classes be allowed to differentiate them if they wish?

Dr. BOND.—Yes.

The PRESIDENT.—Are there any remarks on this General Table I?

Dr. BOYCOTT.—I think that the question of the division of these two classes should be definitely settled; it should not be left to each asylum to say whether they will divide pauper from private patients. If they are to be separated it should be made a rule for everybody. (Hear, hear.)

Dr. HAYES NEWINGTON.—The difficulty will be this: that the differentiation between private and pauper is easy in some respects, but it would be extremely difficult to follow it all the way through in all asylums. There are very few asylums which have any substantial number of both private and pauper patients. If you look at this Table I, you will see what it means. We can give the differentiation between the two in the Asylum Registers on January 1st or December 31st—those are absolute numbers. But when we come to draw deductions from them, such as recovery rates and death rates, we can get no end of fallacies in comparing the recoveries of the various classes of patients unless we made a very large expansion of the Table for following up the cases transferred from one class to another. It would be a most complicated Table if you wished to carry through all particulars in Table I, as between pauper and private.

Dr. MACDONALD.—I see no difficulty, and I think it is a most important matter in connection with this Table. I think that this Table should show the numbers throughout of the different classes in every asylum in the country.

The PRESIDENT.—Do you move an amendment to that effect, Dr. Macdonald?

Dr. MACDONALD.—I move that it be as definite as the South-Western Division recommend.

Dr. ERNEST WHITE.—I have much pleasure in seconding it. Dr. Macdonald and myself happen to preside over those two asylums which have the largest number of private patients of the county class, and I can assure you it is all important that there should be a proper classification of the patients into the two divisions, rate-paid and private. We have only initiated what will become general

in the United Kingdom in a short time, and all the asylums, following out the Lunacy Act of 1890, will have a larger or smaller proportion of private patients; and then the value of this classification which is suggested by Dr. Macdonald, and which I second, will become self-evident. Therefore, I have much pleasure in seconding this amendment.

Dr. HAYES NEWINGTON.—The difficulty—I am speaking now to the amendment—perhaps, which has now been brought to issue is this. You are going to compute your recoveries. How do you compute your recovery rates? In respect to all patients you deduce it by arriving at the proportion between the actual recoveries and the actual admissions. But what admissions, and what recoveries? We are informed that, especially in London asylums, after admission as pauper patients many become private patients. And if you do not follow the matter out very religiously you will get all sorts of fallacies. It is all very well when you have a small number; then you can do it, but where you get hundreds it would be most difficult. If you can insure pauper admissions remaining as pauper patients so that they can afterwards be dealt with as pauper recoveries, it would be easy enough; and the same with private cases; but where you get interchanges between the two classes—not only between pauper and private, but from private to pauper—the door is opened to endless confusion, unless you carry the variations out at the cost of a vast amount of labour. That is the view of the Committee.

Dr. ERNEST WHITE.—If you split this up it is very simple: twenty-five patients; voluntary boarders so many, rate-paid so many—

Dr. ROBERT JONES.—Criminals, that is another classification.

Dr. ERNEST WHITE.—By the Commissioners only, but we do not recognise that. It is a very simple Table; there is no calculating on the table of recoveries. You add these two columns together for calculating your recoveries or deaths. Any child could do it.

Dr. BEDFORD PIERCE.—I do not think it is quite so simple. It is not simply subdividing into private and pauper; you must have another line for patients transferred from private to pauper, and another from pauper to private; and the table which was intended to be a very simple one, so that anyone who looked at the Report could get a clear general idea, becomes a table which is cumbersome and distinctly difficult to grasp the full meaning of. That it could be done we do not doubt. It is an easy matter to pick out all these patients; but it certainly cannot be done by just subdividing this table of certified patients into the two classes; unless you deal fully with all the various patients who are transferred from class to class. We are informed that in the large county asylums this transference from class to class is exceedingly common. Patients who pay 9s. or 10s. per week become private patients, but they are not so, strictly speaking, and in the ordinary sense of the word. This introduces so many fallacies that it is not worth while making the proposed subdivision.

Dr. MACDONALD.—I would point out—(You have already spoken.) I do so again, only with the permission of the Chair. Dr. Hayes Newington raised the question of transfers from class to class. In one of these tables you use the word "cases," and not "persons"; therefore every transfer from class to class must be included in the admissions from that Table. Are you going to take no notice of them in the other line? To my mind, this Table will be of little or no value, unless you show the class of patients.

Dr. WHITCOMBE.—Do the Commissioners in Lunacy agree with that? At the present time they require a classification from all asylums, and I recollect that they send out tables in which this classification has to go on, and in which all the patients are shown as pauper and private.

Dr. MORRISON.—Is it only on Table I that this difference is to be shown?

The PRESIDENT.—We are taking only one table at the present time.

Dr. MORRISON.—If it is to be of any value at all, it will have to go through every one of these Tables. It must be so for them to be effective. Otherwise they are absolutely worthless statistically.

A MEMBER.—Is it a medical table, or a civil table?

Dr. HAYES NEWINGTON.—It is essentially a social table. We considered whether it was absolutely necessary to have anything of the kind, except as a strictly medical table, but it was pointed out that the asylum visitors and county

councillors like to have a few facts at their finger-ends. And these were drawn as social tables, not giving opportunity for drawing false conclusions. They are enumerations of facts.

Dr. **BOYCOTT**.—Will the division of the Registers be into private and pauper, as at present? At present we have pauper Registers and private Registers. Is the proposed division to be into pauper and private? (Hear, hear.)

Dr. **ERNEST WHITE**.—You must have it to satisfy the Commissioners.

The **PRESIDENT**.—I think this Table has been debated sufficiently long; and I shall put first of all Dr. Macdonald's amendment. It is that there shall be inserted into this Table, compulsorily I understand, separate lines for pauper and private patients.

Dr. **MORRISON**.—I would ask Dr. Macdonald whether he intends it to apply only to Table I, or to the rest of the tables. I ask because it will make all the difference in my vote.

The **PRESIDENT**.—We cannot tie ourselves as to what will follow later.

Dr. **YELLOWLEES**.—It is not carried through in subsequent tables; this discussion has simply illustrated what we found so constantly, that very good men could take opposite views on the same point, and that they could often be stubborn (laughter). Therefore we took the middle course, and as we thought, the wise one, in saying that the subdivision of this Table should be optional. Let the man who wants it, do it; and let the man who does not need or want it, ignore it. Quite a number of asylums do not wish it at all; they have no pauper patients, and, therefore, they do not need it. I do not see why it should not be left optional. It is for you to decide, but it is an illustration of what continually comes up, that while all are intending to do the best thing, we differ about it mysteriously and persistently.

The **PRESIDENT**.—I put it to the vote. Those in favour of Dr. Macdonald's amendment.

Eight voted for the amendment, and it was declared lost.

Dr. **BOYCOTT**.—Instead of having the Table divided I propose that there should be separate statistical tables altogether for private patients and for paupers.

The **PRESIDENT**.—That there should be a duplicate of this Table for private patients?

Dr. **BOYCOTT**.—Yes.

The **PRESIDENT**.—I should have thought any man could do that if he liked.

Dr. **ROBERT JONES**.—I see nothing against any table being duplicated if necessary.

Dr. **BOND**.—On first sight there is no absolute difficulty in duplicating the Table for private patients. But if you look at this Table you will see it is so arranged that for each of its two subdivisions (into certified and voluntary patients) two columns are provided, the figures in the right-hand columns being the totals of certain of the others and balancing. Now, the moment you differentiate the private cases, ability to totalise and balance is lost, owing to the great difficulty already discussed of the transfer from class to class in certain asylums. If you are content to take certain figures and avoid attempting to make a balance, there need be no difficulty.

The **PRESIDENT**.—No one has yet seconded Dr. Boycott's amendment.

Dr. **CARLYLE JOHNSTONE**.—I will second it, and that will make me in order in speaking. In the asylum of which I have charge we have a supplementary table. We experience the same difficulty as that which has been met by every person who has compiled these Tables in dealing with private and pauper patients if transferred from class to class. We have Table A, and that Table shows admissions, discharges, and deaths of private and pauper cases, and transfers from class to class. You thus get a general view of the movement of the asylum population as regards pauper and private patients. I think those who wish to make that distinction can do it most simply by having this additional Table.

Dr. **MERCIER**.—Does the Committee desire to restrict superintendents from keeping any other tables than these? I should fancy that if any superintendent desires to keep additional tables the Committee will throw no obstacle in his way; and that if he desires to duplicate this or any other table he may do so?

Dr. **YELLOWLEES**.—Certainly.

Dr. **MERCIER**.—I gather that the Committee does not want to compel persons

to keep Registers regarding patients of a class of which they have none. They do not desire, for instance, that those institutions which take only private patients should be compelled to keep a Register for paupers, or *vice versa*?

The PRESIDENT.—What is your amendment, Dr. Boycott? Will you let me have the wording of it.

Dr. BOYCOTT.—That tables should be drawn up separately for pauper patients and for private patients.

The PRESIDENT.—That they should be in duplicate?

Dr. BOYCOTT.—Separate tables altogether.

The amendment was then put, and lost by a large majority.

The PRESIDENT.—Has anybody any further amendments to propose? ("Agreed to.")

The PRESIDENT.—I formally put the motion of the Committee, that Table I be provisionally approved.

Carried unanimously.

Dr. YELLOWLEES.—I beg to move that provisional approval be given to General Table No. II, which shows the movement of the Asylum population during successive years, and a summary of results. It is, in fact, reproducing Table III of the old Tables, and without the difficulty and complication of Table IV of the old Tables, wherein the patients of each year were carried down, so long as they lived in the asylum, through all the succeeding years. It is, as the heading shows, a distinct and simple Table, showing the changes in the asylum population during the successive years, and giving also the average daily number resident, the percentage of recoveries on the admissions, both direct and indirect, and the percentage of deaths on the average daily number resident. It is another of the general Tables, giving the growing statistics of the institution. I think Dr. Bond has, from one of the Divisions, a suggestion that the total admissions, which are slumped together, should be differentiated.

Dr. BOND.—The Northern and Midland Divisions suggest that the admission column in this Table be expanded to distinguish between "Direct" and "Not direct" cases, implying, of course, a third column for the "Total." The Committee agree to this, and, as a corollary, they suggest the use of the term "Not direct" in the succeeding Table as governing (a) transfers and (b) lapsed orders, etc. This leads the Committee to modify at the same time the definition of the term "Direct" standing at the head of General Table II (p. 12) by adding to it the words: "*The term 'Not direct' is applied to the cases thus excluded.*"

The PRESIDENT.—We are dealing with this Table now, the others come later on.

Dr. YELLOWLEES.—What Dr. Bond read just now was from the Northern and Midland Divisions, and we at once accepted the suggestion. I do not know whether it is clear to the Association that by the term "Direct admission" we mean all through cases that have been brought from the public outside, and not from any other form of care whatsoever; and by the "Not direct" admissions we mean transfers from asylums, registered hospitals, licensed houses, certified single care, patients admitted irregularly or through lapse of order. "Direct" and "Not direct" seemed the simplest way of expressing that distinction. Let me say that the note at the head of this Table will be, I hope, unnecessary after a little, because part of our scheme, as stated, if you will remember, in the original Report, was that we should prepare blank forms of tables after they had been finally approved, and should also prepare certain definitions of the terms used, so as to avoid ambiguity or misunderstanding in compiling the Registers or the Tables. I beg to move that the meeting give its provisional approval to General Table II.

Dr. BOWER.—I second that.

Dr. BOYCOTT.—There is one thing I would like to point out, and that is to ask whether it is possible to omit the Table showing the percentage of recoveries on the total number of admissions; because I do not see what direct effect that produces. You reckon recoveries on cases which include absolutely irrecoverable cases, like idiots.

Dr. YELLOWLEES.—On the other hand, a number of your transfers may yield recoveries, and you would lose the credit of these if you did not calculate in both ways, on the indirect as well as on the direct admissions; and you would also lose any recoveries which might chance to come in the other indirect admissions as well as in the transfers.

Dr. HAYES NEWINGTON.—It was put in to meet the Scotch difficulties, because they do not calculate their recoveries in the way that we do. They take their total admissions and total recoveries. We take total admissions, deduct transfers and other indirect admissions, and divide the result by total recoveries. So that this Table should answer for all the Divisions.

Dr. BOWER.—What did the Committee do about the word "relieved"? A recommendation on that was sent by the South-Eastern Division.

Dr. YELLOWLEES.—We have had that question up again and again, and it is an important one. We are tied by the fact that all the Commissioners use it, and it would require an alteration in all three Divisions of the Kingdom. We do not want to ask from the Commissioners more than we are likely to get; and, moreover, it is certain that many patients may be relieved who are not improved mentally at all. A general paralytic may be admitted in wretched bodily health and with bed-sores, but after a few months of proper care and nursing he is able to walk to his home, and be cared for there. His malady is as obvious as ever, and you cannot say it has "improved," but certainly you have greatly "relieved" the patient. There is something to be said on both sides; but so long as the Commissioners keep the term I think we shall have to accept it. It is a statutory word, and that seems to clench it.

Dr. CARLYLE JOHNSTONE.—Is there no misunderstanding whatever about the words "direct admissions"? Because Dr. Yellowlees was asked the meaning at the meeting in Scotland, and the answer he gave was, I thought, the opposite of the intention of the Committee. What I understand by a direct admission is an entirely new case; and an indirect admission is a case which may be "transferred" from one place to another, or which may be conveyed from one place to another; he comes from one place where he has been certified already to another place under the same or under new certificates. A man may come into Carlisle from across the Border; is that a direct admission?

Dr. YELLOWLEES.—He is a direct admission who is received into an asylum upon an order from the outside world, no matter where. But it is not a direct admission if he is received from any other institution under the certificates on which he was originally received there.

Dr. CARLYLE JOHNSTONE.—If a man is brought from Carlisle Asylum to Melrose Asylum, and there is no transfer order, is that a direct admission?

Dr. YELLOWLEES.—Yes, it is a direct admission, for it is under a new order; but it is not a "first attack" admission, because he has been already insane.

Dr. CARLYLE JOHNSTONE.—I want to point out the inconsistency of this. If I get a man from Edinburgh Asylum, where he has been for only a fortnight, he is to be reckoned an indirect admission. If he is sent from Carlisle, where he may have been for fourteen years, he comes in as a direct admission.

Dr. MERCIER.—It is a civil table, not a medical table.

Dr. HAYES NEWINGTON.—The question rests on this ground: The Commissioners in England have their Annual Register, from which they utterly cut out any case that is not admitted on a fresh order. And the reason, I think, is that when they come at the end of the year to sum all their cases up as returned from each asylum, they get a true total in this way. But if they took all the admissions to all the asylums they would get a false total, for they would be dealing with some cases two or three times over. The distinction is, that a direct admission is one who is admitted on a fresh order, for this purpose, excepting those readmitted on fresh orders, rendered necessary by failure to comply with the provisions of the law; indirect for all other cases.

Dr. CARLYLE JOHNSTONE.—I see. For official purposes it is convenient to take them in that way, but for scientific purposes it is absolutely useless.

The PRESIDENT.—I understand you do not move an amendment, Dr. Boycott.

Dr. BOYCOTT.—No.

The PRESIDENT.—There is no amendment before the meeting. Therefore I put it that the recommendation of the Committee that this Table with the alterations suggested by the Northern and Midland Divisions and accepted by the Committee, be approved.

Carried unanimously.

Dr. YELLOWLEES.—I beg, again on behalf of the Committee, to move that the next Table, the first admission Table, Table III, as it will be called, be provisionally

approved. It is merely an analysis of the admissions during the year, excluding voluntary boarders, and differentiating the various classes of cases received.

The PRESIDENT.—There is the suggestion of the Committee, the corollary.

Dr. BOND.—Yes, as a corollary to the last remarks, to put the words "not direct" at the head of the transfers and lapsed orders. There are no comments from the Divisions.

Dr. CARLYLE JOHNSTONE.—Will there be any difficulty in dividing "not direct" into congenital and acquired?

Dr. MERCIER.—Surely it is not important to know whether an order lapses in regard to a congenital or acquired case?

Dr. BOND.—Is it worth it? The cases are included and expressed as congenital ones in the Residue Group, Table II, page 29. They are not lost sight of.

The PRESIDENT.—Is there any amendment to this? If not, I will put it.

Carried, one voting against.

Dr. YELLOWLEES.—I now move, in the name of the Committee, provisional approval of Table II of the Admission Group, showing duration of attack. It is a further differentiation of the classes of patients received. There is nothing to say about it. It gives the duration of the mental disorder prior to admission. We had a great deal of discussion about this: When does a man become insane? From what period are you to date the beginning of his illness? One view is that a man is not insane until certified, and that you have no right to talk about any antecedent illness. We naturally came to a contrary conclusion, and we think the duration of the mental disorder begins from the time when those about him recognise that he is "going off his head," as the phrase is, and that date depends entirely on the history which can be got from his relatives. It is impossible to ignore the great importance of the commencing illness, and we give it prominence here—the duration of his mental disorder prior to admission. There is nothing to discuss about the Table, except that it is an amplification of the nature and kind of admissions.

Dr. BOND.—There is one note from the South-Eastern Division suggesting that the word "probable" be inserted as governing duration of mental disorder.

The PRESIDENT.—I gather that there is no amendment to this, so I put it that Admission Group Table II be provisionally approved.

Carried unanimously.

Dr. YELLOWLEES.—I beg to move that provisional approval be given to the next table, which is Table III, Admission Group. This and the following Tables deal only with the direct admissions. It shows in quinquennial periods the ages on admission of the direct admissions during the year, arranged according to their civil state, and distinguishing the congenital cases, voluntary boarders excluded. There has been nothing said about it, and I move that it be provisionally approved. I forgot; there was an amendment from the Irish Division that we should add "80 and over" to the ages. Of course, we do not object.

The PRESIDENT.—I put this to you.

Carried unanimously.

Dr. YELLOWLEES.—I rise not without fear and trembling—at least, I suppose I ought to have that feeling in moving Table IV—the forms of mental disorder—which has been already so much discussed. I think Dr. Bond has some suggestions to read.

Dr. BOND.—They have already been read in the Report, and were as follows:—"The Committee is able to recommend the treatment of one thorny subject in such a manner as to lead to its appropriate discussion hereafter, and to prevent at the present time its being a serious and lengthy hindrance to the final settlement of the Tables. It refers to the question of the Forms of Insanity. The Northern and Midland Division has made the valuable suggestion that this Table be accepted for the time, and that the next Annual Meeting be moved to appoint, if it thinks fit, a Special Committee to study the whole question of classification. When the report of this Committee is received and adopted, then such new terms and forms as it provides can readily be substituted for those now in use. No statistical difficulty or disarrangement in the proposed Tables will be thereby caused."

Dr. YELLOWLEES.—That is the feeling of the Committee and the spirit in which they submit it to you. We have all thought about this subject a great

deal, and know how futile all attempts at classification have proved in the present state of our knowledge. We did not therefore attempt classification at all, but merely gave groups of forms such as everybody can recognise, and under which every man will range his admissions according to his personal opinion. Everything in those Tables will be according to the individual opinion of the man who makes them up. You can never get away from the personal equation; and the Table before you represents what we thought the simplest way of getting out of this difficulty. By all means let us have it if the Association thinks the time has come for getting a true classification. Let them appoint another Committee to do it if it thinks fit. It was not part of our duty at all, and this Table is little different from the old one, which we accepted almost bodily without trouble, as the simplest and most intelligible, and the one which would serve our present purpose, to be superseded some day, we earnestly hope, by a better one—when we can get the better one—when we know enough to make it. Meantime, I move the provisional adoption of the Table as submitted.

Dr. CARLYLE JOHNSTONE.—Are there any other communications from Divisions or individuals?

Dr. BOND.—Yes, there are.

Dr. ROBERT JONES.—There is one from Dr. Menzies about Table IV, and there is one from the Irish Division, which I commenced to read, but already the Secretary of the Statistical Committee has stated that he had a copy of the Report from the Irish Division, and it has been under the Committee's consideration.

Dr. MERCIER.—It has not been before the meeting.

The PRESIDENT.—All these Reports from Divisions were to go to the Statistical Committee.

Dr. MERCIER.—But it would be an advantage to hear them to-day.

Dr. CARLYLE JOHNSTONE.—We understood we were to have them to-day, and the expression of opinion of any person unable to be present. It was promised to us.

Dr. ROBERT JONES.—I would like to reply to Dr. Carlyle Johnstone that the only member who has sent a comment was Dr. Menzies, of Cheddleton, whose letter I read. The others were by resolution at the Annual Meeting to be sent to the Secretary of the Statistical Committee, and that has already been done. By an act of courtesy the Irish Divisional Secretary has sent me a copy as well, which I started reading, but I stopped as their Report had already been under consideration by the Statistical Committee.

Dr. CARLYLE JOHNSTONE.—Are we to have the views of the Divisions here?

The PRESIDENT.—Indirectly, through the Statistical Committee, undoubtedly.

Dr. YELLOWLEES.—There is no difficulty about that, so far as the English Divisions are concerned. You have a formal Report from the Secretaries, but not from the Irish Secretary. There is a private letter, which is personal, and it has all the freedom of a private letter. In it he tells us there is a general approval, and that is all.

Dr. BOND.—I can read it, shortly, without reading the long communications through.

Dr. CARLYLE JOHNSTONE.—Is that all you received from Scotland?

Dr. BOND.—Yes. I had a second letter, reversing the first. The first letter stated that this was not approved, and the second letter said that was an error, that it was approved. (Laughter.)

Dr. MERCIER.—Who signed the letter?

Dr. BOND.—The Secretary.

Dr. MACDONALD.—Are we to understand that the Committee has not given a place to any suggestion from any Division in regard to it? If that is so, I am unable to support it. If they are going to ask for a better some day hence, I think we had better stick to what we have until that better is produced. I myself will not alter that Table on the lines suggested by the Committee.

The PRESIDENT.—Do you move an amendment?

Dr. MACDONALD.—No; I vote against it.

Dr. MERCIER.—Is not the question not so much one of amendment to the Table as to Dr. Yellowlee's suggestion that it should be left over, and the Annual Meeting be requested to appoint a committee? I ask on a point of order which is before the meeting.

The PRESIDENT.—You have not formally moved the adoption of this Table.

Dr. YELLOWLEES.—Provisionally, yes, I have.

Dr. MERCIER.—Provisionally, until the annual meeting?

Dr. YELLOWLEES.—No; this is the annual meeting.

Dr. HAYES NEWINGTON.—The adjournment originally was to an adjourned meeting of the annual meeting. The definite proposal which has been adopted to-day by the Association is that this adjourned annual meeting further adjourns itself till May, and not to another annual meeting.

Dr. MERCIER.—But with regard to this particular Table, I understood that Dr. Yellowlees made the proposal that it should be provisionally accepted only for a certain period, and that at the end of that period another Committee should be appointed for the purpose of considering this particular Table.

Dr. YELLOWLEES.—No. The Association can appoint a new Committee if it pleases for that purpose, and this one may serve in the meantime. I do not ask that this Table shall serve for any definite period.

Dr. MERCIER.—The distinction is not a very important one, but I gathered that was your intention. But at any rate, the sanction given to this table should be a temporary sanction, and merely for a time; and if that is so I do not feel inclined to press any opposition I have against the table, merely for a time. But it is a question whether it is worth while to interpose this provisional table when we have one already in existence and there is one projected for the future.

Dr. MACDONALD.—I wanted to ask Dr. Yellowlees why the Committee did not erase dementia præcox as suggested.

Dr. YELLOWLEES.—I have no difficulty in answering that. The Committee did not understand the suggestion for obliterating from their grouping primary dementia; and they do not understand it yet; nor do I. Since primary dementia is surely a very well recognised form of disease, and a very important one, it ought to appear here. What reason had the Division for drawing their pen through that line?

Dr. MACDONALD.—These words include dementia præcox.

Dr. YELLOWLEES.—We have not objected to that.

Dr. MACDONALD.—But you have not agreed with it.

Dr. ERNEST WHITE.—That is the point I was going to make.

Dr. YELLOWLEES.—I do not know whether we understand the same thing by "primary dementia." Surely it is dementia which comes on in comparatively early life because the nerve energy of the individual has run out prematurely. You might call it premature dementia; surely that is a very well recognised type of insanity, and we must put it in. I am content to leave out the words "dementia præcox."

Dr. MACDONALD.—Do I understand you, as a Committee, have no objection to drawing your pen through the words in brackets?

Dr. YELLOWLEES.—I am sure the Committee will not object to it.

Dr. ERNEST WHITE.—I will move that we delete those words, "including dementia præcox."

Dr. WEATHERLY.—There is General Paralysis of the Insane instead of General Progressive Paralysis. I do not know why the Committee objected to that.

Dr. YELLOWLEES.—It was specially because one member was extremely anxious we should not use the old name. Others did not share his feelings so much, but he was so earnest, and is so important a member, that we yielded to his urgency. The reason was that he desired to avoid all possibility of confusion between that and paralytic dementia. But, as a Committee, I am sure we are ready to accept the old and familiar term. We have no word to say against it; but we did not feel we could throw over this member, because he was absent when it came up finally. If you say you want it—

Dr. WEATHERLEY.—I propose that we do want it. I propose that as an amendment.

Dr. MACDONALD.—I second that.

The amendment was then put, and carried unanimously.

Dr. YELLOWLEES.—As a Committee, we are quite agreeable.

Dr. ERNEST WHITE.—Have you put the amendment as to dementia præcox?

The PRESIDENT.—That is accepted frankly.

Dr. CARLYLE JOHNSTONE.—What position are we in now with regard to Dr. Yellowlees' motion?

The PRESIDENT.—It is before the meeting as amended.

Dr. CARLYLE JOHNSTONE.—Will you allow me to move a direct negative? Dr. Mercier has already put the obvious criticisms and suggestions in such a luminous way that it is not necessary for me to add to them, or try to improve upon them. But I would say that nothing would induce me to accept this Table. I do not think it would be approved in Scotland. After various criticisms had been made at the Scottish meeting it was agreed almost unanimously to disapprove of this table. I am not aware that there is any principle or basis at the bottom of it. I asked a member of the Committee what the basis of the principle was, and he said there was not any. We asked what the basis of the old table was, and he said it was a conglomeration. It is of no use to us. This classification is based upon several different principles—mental, bodily, associated conditions, date of origin, etc.; and I think the whole thing is unworthy of our Association; and I, personally, enter my protest against it.

Dr. HAYES NEWINGTON.—This resolution is purposely drawn to keep the matter open again for Scotland. If the Scottish Division had come to certain conclusions we should have got over the ground much better. But we are told they have only done a few tables, and would like to speak again; and it is left over until May; therefore, surely, those suggestions can come up in May. I think it would be a pity to open any discussion on any particular classification at all. The question is whether you will accept as a temporary measure the Table as put forward by the Committee. You can come to a settlement now, and you can still alter it in May. The Association can take the matter into its own hands, and pass judgment on it.

Dr. CARLYLE JOHNSTONE.—We are asked to express provisional approval, and I express the strongest disapproval.

Dr. YELLOWLEES.—We all disapprove of this Table as much as Dr. Johnstone. He speaks as if he had made a discovery. We know it is a bad one; every member of the Committee deploras that we have such a miserable table. We do not know enough yet to make a better one—except Dr. Mercier; I beg his pardon. It is a temporary stop-gap, and I think it is the best we can offer you.

The PRESIDENT.—I now put it to the meeting that this Table be provisionally approved, as amended.

Fourteen voted in favour, two against.

The PRESIDENT.—I declare it carried.

Dr. YELLOWLEES.—I now move the provisional adoption of Table V.

Dr. BOYCOTT.—Excuse me for interrupting you, but is this Committee to be appointed?

The PRESIDENT.—Not by this meeting.

Dr. YELLOWLEES.—It is a matter for the Annual Meeting in July.

The PRESIDENT read the notice or resolution concerning the point.

Dr. YELLOWLEES.—This next Table is a familiar one, dealing with the occupations, and they are grouped here somewhat concisely. We are not tied to that. A communication spoke about expanding; another asked if a lady and a tramp at her gate were to be equally classed as of "no occupation"; and several other suggestions were made in the way of amplifying and expanding this. Our feeling is that each man must do as he likes. One man, who is in a coal-mining district, wanted to have coal-miners specified. We thought the table should be elastic, and that ultimately the nomenclature of the headings of the Registrar-General should be, as far as possible, adhered to in defining occupation. I beg to move the adoption of that Table.

Dr. BOND.—The exact recommendation of the South-Eastern Division was that it should be expanded so as to include actual occupations. "The Committee agree to recommend that it be permitted to subdivide this Table to any extent, provided that the Registrar-General's Divisions be adhered to. And they feel that such a mode of treatment will cover Dr. Mott's suggestion that a heading be provided to show the number of admissions connected with the liquor trades; and that as to the latter, if further elucidation be required, the Commissioners will have the full information in our Registers, or that the Association could institute an inquiry on its own authority."

Dr. YELLOWLEES.—Dr. Mott's proposal was a very important one, and it gave the Committee some anxious consideration.

Dr. MERCIER.—I do not understand what the amendments adopted by the Divisions are.

Dr. HAYES NEWINGTON.—The Commissioners, with their annual sheets, send round to all Asylums in England a list of, I think, 99 occupations, founded upon the census returns of the Registrar-General, and these are grouped into various headings, about eight of them; and the Committee, to start the subject, only put in the eight headings. It has been suggested that these should be expanded. People can put in what they like, so long as they follow the order of the Registrar-General.

Dr. MERCIER.—That opens the door for a great deal of confusion, unless these are to be considered as the main headings under which the more detailed particulars are to be arranged.

Dr. YELLOWLEES.—Yes, that is so. These headings must be taken, but they can be expanded.

Dr. MERCIER.—Because, for instance, where would you put the actor in this list?

Dr. BOND.—You will be guided by your Registrar-General's Schedule.

Dr. MERCIER.—I understand there is a further guide.

Dr. ROBERT JONES.—I sympathise with Dr. Mercier.

Dr. MERCIER.—It is too meagre to form any guide at all. It is scarcely any use putting down eight headings alone. Unless there is some further guide, this is no use. We should have some much more detailed table to be referred to at hand, something which we can get hold of beyond this. This does not seem to be nearly enough.

Dr. HAYES NEWINGTON.—Dr. Yellowlees has mentioned the fact that there will be a kind of chart of instructions, and this is a matter which, if the Association feels strongly on it, can be therein dealt with. It is always a little difficult to get hold of the Registrar-General's Returns. Of course, in England we have the Commissioners' Returns; and I daresay the Committee would be pleased to consider how best to elaborate the point. It would be absurd to have 99 divisions printed in all the Tables compulsorily, because many headings would have no numbers put against them. But if it were understood that the Committee would work it out, would that satisfy your view?

Dr. MERCIER.—Yes; I think the Table is a little too meagre, and might be more explicit.

The PRESIDENT.—I understand there is no amendment made.

Dr. ROBERT JONES.—I would supplement what Dr. Mercier has said. I have found the greatest difficulty in getting details about employment such as that of lead-workers, and only by referring to the Census returns did I find that they came under the headings included here. There is a multitudinous number of occupations enumerated in the Census returns, and various headings under which they come. I do not know if a reference to the Registrar-General's returns or the Census headings would be of any assistance; but it seems you can classify more easily if you have access to the enumeration of the returns, as they are under subdivisions of these headings included in the Table. I only suggest as an amendment that reference might be made in the Tables to the returns given in the Census which include every occupation which is commonly or rarely met with.

Dr. BEDFORD PIERCE.—One of the reasons there are so few headings is, that if there is one thing which has been more strongly impressed upon the Committee than another, it is that we should simplify this Table as much as possible. Many people consider these occupations as of very little value, and the superintendents of asylums who were not particularly keenly interested in following this up suggested that we should do it on an abbreviated Table of this kind.

Dr. ROBERT JONES.—Can I suggest that reference be made in the Occupation Table to the fact that there does exist a complete list of occupations in the Census?

Dr. YELLOWLEES.—That will be included in the definitions and instructions which the Committee are to prepare.

Dr. ROBERT JONES.—I suggest that it be a footnote.

Dr. BOYCOTT.—They are printed in the JOURNAL.

Dr. ROBERT JONES.—There should be just a reference to it as a footnote.

Dr. BOYCOTT.—It could be printed in the JOURNAL once, for reference.

The PRESIDENT.—I put it that this Table be provisionally approved.

Carried unanimously.

Dr. YELLOWLEES.—I beg to move the provisional adoption of this Table VI—the Ætiological Table. There are many suggestions from the Divisions, which Dr. Bond will read presently, and one suggestion of our own has made a little alteration in this respect, that we have put at the head of the column Congenital and Hereditary, as being separate and distinct, and deserving of a place for themselves; and we have raised them from the lower level to the top.

Dr. BOND.—*Admission Group VI.* (1) The Scottish Division referred this Table back to the Committee; (2) the South-Western Division accepted this Table; (3) The South-Eastern Division suggested that the headings under co-existing conditions be amplified so as to include the forms of mental disorder in Table IV. The Committee see no objection, and will not oppose this. But they refrain from assuming the responsibility of recommending it, on the score of the increase in size of a Table already large; (4) the Northern and Midland Divisions also accept the Table, subject to the proviso that the factors C and K, Heredity and Congenital Defect, shall precede all other factors, and be separated from Mental and Physical Stress. The Committee agree to this. The Committee take this opportunity to suggest that under "M" the words "cases in which no particular cause could with certainty be assigned" shall read "cases in which one or more causal factors were found, but in which none could with certainty be assigned as the principal cause." Also that "N" and "O" "None assignable," etc., and "None ascertained," etc, should read "N Cases in which no principal or contributory causal factor was assigned." And that in the Medical Register a column be added to indicate to what extent the personal and family histories of each case were satisfactory.

Dr. ROBERT JONES.—I think there must have been some misunderstanding, perhaps on my part. The Irish Secretary has referred to this Table, but no reference by Dr. Bond has been made to the Irish Secretary's return. There could not have been, I fear, an exact copy of what I have received sent to Dr. Bond. I understood at the beginning that you stated a copy had been sent to you.

Dr. BOND.—You are right; I have not previously seen the communication which you have just handed to me.

Dr. ROBERT JONES.—There are remarks in it dealing with Table IV.

Dr. HAYES NEWINGTON.—In Committee we had communications from the Irish Secretary, and also private views of members in Ireland. We had eight hours' work on these matters yesterday, and I think it will be a little unfortunate if the course of our discussion is to be somewhat delayed by fresh matter. I do not think we ought to spare the time to read them now. There will be an opportunity for the Committee to consider them again when the matter comes up in May.

Dr. ROBERT JONES.—There are very few comments in this communication from Ireland—only two lines relating to this Table, and half a dozen lines relating to another table, and they might be read without taking much time.

Dr. MERCIER.—I do not know whether our Treasurer has considered the consequences of reading the communications from the other Divisions, and not that from the Irish Division. I should be sorry to cross St. George's Channel with him afterwards if his suggestion is adopted.

The PRESIDENT.—They have only this morning reached the General Secretary.

Dr. HAYES NEWINGTON.—And they have not been considered by the Committee which has been appointed.

Dr. BEDFORD PIERCE.—We have already had a formal Report, which we, the Committee, did receive from them.

The SECRETARY (Dr. Jones).—I think the Irish communication might be read in regard to this.

Dr. BOND.—Their meeting was on November 4th; the letter was sent on November 15th.

The PRESIDENT.—We are on Table VI; we will have their views on this Table.

Dr. BOND.—The suggestion in respect of this Table reads: "Heredity should be removed from under 'Physical Stress,' and placed in a class by itself in the list." So that, as stated by Dr. Yellowlees, the point has already been adopted.

The PRESIDENT.—You move that this Table be adopted, with the amendment of these details?

Dr. BOND.—We do not oppose the South-Eastern Division's suggestion, but we do not assume the responsibility of it.

Dr. HAYES NEWINGTON.—Would it facilitate matters to consider this as provisionally approved until May, and the Committee be instructed to get out another Table with the proposed amendments, as it is an important Table? May I suggest that that be done.

The PRESIDENT.—I do not think we need definitely approve it to-day, because one of the suggestions is, "But if serious and weighty objections be displayed against it, the discussion be adjourned to the adjourned meeting." The whole Table can come up again without approving it in any way.

Dr. HAYES NEWINGTON.—If it is necessary to explain the thing we should also have a detailed plan of it.

Dr. MERCIER.—I was going to say that I have exercised, this afternoon, so much self-restraint that I feel I have come to the end of my tether when I come to Table VI, and that it is impossible for me, even when placing upon myself the very utmost tension possible, to give even provisional approval of it. I need not enter into details, because I have already fully published the objections which I have to it. I will only say that if this could be put into the pot along with Table IV., and referred to another Committee—I cannot vote in favour of it—I will refrain from voting on it as a provisional measure if there is promise of it being reconsidered at no distant date.

Dr. BOYCOTT.—Would "N" and "O" columns have to be omitted altogether? It seems to be rather undesirable to have three divisions of cases in which no principal cause can be ascertained.

Dr. BOND.—They are not three divisions. The Group "Cases in which no principal cause could with certainty be assigned" is altogether different from Groups "N" and "O"; it implies that while there were two or more factors, the principal one was not distinguished. It was inserted to meet the views of those who have a difficulty in making such a distinction. And with regard to the "None Assignable" and the "None Ascertained," the Committee now propose merely to state the number of cases in which no principal or contributory factor was assigned.

Dr. HAYES NEWINGTON.—With regard to Division "M," the objection—not only a pious objection, but one which has been very much in the way of the Committee—was taken that assignment as between principal and secondary is sometimes very difficult. To get over all difficulties, and give the most conscientious objector every opportunity to bring in these cases, we put in that Division.

Dr. BOYCOTT.—Without making a motion, I would ask the Chairman of the Committee whether it would not be possible to omit the column marked "Contributory or Social Factors," and also the column marked "Total Incidence." If in all these different causes the principal was marked down, and the secondary one marked in the horizontal column, it would cover the matter.

Dr. HAYES NEWINGTON.—The Table goes farther than that.

Dr. BOYCOTT.—It would simplify it more.

Dr. BOND.—Dr. Boycott will notice that the causes as they appear horizontally on the top of the Table are not identical in words with those vertically; in short, in their horizontal arrangement, some are grouped together, and that is done to keep the Table within a reasonable space. The idea is that a cause which is not stated in print here, but which is found in a certain asylum, can be inserted by the superintendent of that asylum. To indicate this, blank spaces have been left in the vertical list of factors. But if you are going to allow that opportunity to be repeated in the horizontal list, the summation of the returns of all the asylums in the United Kingdom will produce a Table of vast size. To carry out Dr. Boycott's suggestion you must have every cause in the vertical list expressed *verbatim* in the horizontal list. Such is possible, but in addition to the unwieldy size of the Table, the available correlation would be a very poor one as compared with ours; it would only be a partial correlation.

Dr. BOYCOTT.—I do not see how your argument affects having contributory columns.

Dr. BOND.—It does so absolutely, though it is difficult to explain in a short

time. If you wanted to ascertain how often two factors are associated—for instance, such a common association as drink and the climacteric—should they happen to be in the same patient, both contributory to some principal factor, their mutual association would be lost sight of as regards that particular case; so the correlation would be incomplete.

The PRESIDENT.—I think it is better to postpone the consideration of this table until the adjourned meeting in May. You can re-cast it by then.

Dr. BOND.—We shall have to get it into print again as it is.

Dr. BEDFORD PIERCE.—We should like to have the recommendation of the South-Eastern Division, that the forms of insanity should be added to this Table, considered. I think as you are so divided as to what the forms of insanity are, it would be folly to add them.

Dr. MERCIER.—It would require a table the size of a table-cloth.

Dr. BOND.—The Committee will not assume responsibility in the matter, but it is feasible.

Dr. YELLOWLEES.—It should be fully reconsidered by the Committee, and should then be discussed at the next meeting of the Association.

The PRESIDENT.—Those who are in favour of adopting the suggestion of the South-Eastern Division, that the headings under the existing conditions be amplified so as to include the forms of mental disorder in Table IV.

On being put to the meeting, one voted in favour, and the proposal was therefore declared to be lost.

The PRESIDENT.—We now come to Admission Table VII.

Dr. YELLOWLEES.—I move the provisional adoption of Table VII.

Dr. BEDFORD PIERCE.—I second that.

Dr. BOND.—I have some comments on this from the South-Eastern Division, which I will read: "On the suggestion of the South-Eastern Division, the Committee agree that this Table shall read—*Showing the age on first attack, in the direct admissions during the year, distinguishing between first attack cases, and cases in which the attack is known not to have been the first*, and that this Table be amended accordingly. A foot-note, stating that the third class of Direct Admissions, *vis.* 'unknown whether first attack or not,' are necessarily excluded from this Table, will probably recommend itself." The South-Eastern Division suggested that the Table was not complete, that it only gave the age at first attack in regard to those who had had previous attacks, and it would be well—although the information is accessible from a previous table—in this Table to see at a glance the age at first attack in regard to the total number of direct admissions. The Committee agree to that. It means the alteration of the title of the Table, in the form such as I have read out. Further, in that we have in other tables a third division of direct admissions, namely cases in regard to which it was impossible to say whether it was the first attack or not, a foot-note stating that this third class of Direct Admissions was necessarily excluded from this Table would probably recommend itself. The suggestion does not alter the Table, except for the provision of a new line and that the heading has to be re-cast.

Dr. BOYCOTT.—I do not see where that information is given.

The PRESIDENT.—The Committee has practically accepted the amendment. I put it as amended.

Dr. YELLOWLEES.—It is put in because the Commissioners require it for their Blue Book.

Carried.

The PRESIDENT.—Now Table VIII.

Carried.

The PRESIDENT.—We now come to the Discharge Tables.

Dr. YELLOWLEES.—Discharge Table I. It is simply as we did with the Admissions, going over them and differentiating them according to their various classes: First Attack, Not First Attack, Unknown whether First Attack or Not. There is a comment from one of the Divisions about the terms "relieved" and "improved." There is one mistake in the Table; "Classification at the Time of Discharge" got into this Table by error, and the Committee have marked it out. I propose the approval of the Table with this erasure. It is simply an analysis of the discharges.

The PRESIDENT.—Is there any amendment to this Table?

Carried.

The PRESIDENT.—Now Discharge Table II.

Dr. YELLOWLEES.—I move its provisional adoption. There are some remarks on it from the South-Eastern Division.

Dr. BOND.—The South-Eastern Division suggest that this Table be deleted. The Committee, after full consideration, feel that more scientific accuracy would be attained by its retention. They would point out that in it is involved the duration of treatment (hitherto, the duration of residence in the last asylum) in the recoveries, and that no question thereon could, in the absence of this Table, be answered. The Table could, of course, be modified to express this, deleting the correlated "duration of the attack previous to admission," etc. Dr. Chapman, however, in his criticisms suggests, indeed, amplification, instead of curtailment, of this Table, his suggestion being that "Unknown whether First Attack or Not" be subdivided into the same nine columns as are provided for "First Attack" and "Not First Attack." The suggestion of the Northern and Midland Divisions, that this term "*First Attack*" be defined so as to make it clear whether an uncertified attack of insanity would be included, will be met in the "page of explanations and definitions" which the Committee propose to draw up, to which page, in passing it may be mentioned, the definition at the head of page 12 and the remark at the head of page 15 will be relegated.

The PRESIDENT.—I sympathise with the South-Eastern Division in deleting any of these tables which involve a lot of work. I shall be glad to hear if there are any amendments.

Dr. BOYCOTT.—I beg to move the amendment notified by the South-Eastern Division. I do not think we should gain any advantage from it.

The PRESIDENT.—Does anybody second it?

Dr. THOMPSON.—I second it.

Dr. YELLOWLEES.—I think it is an important Table. The first thing you ask about a patient when he comes is, "How long has he been ill?" I think it is a very important point, and, as I say, it is the first question that occurs to our minds. We take stock of a new patient at a glance and ask, "How long has he been like this?" I do not think this Table can be left out.

The PRESIDENT.—Those in favour of the amendment.

Two voted in favour, and it was declared lost.

Dr. MERCIER.—I object always to the application of terms of space to terms of time, and *vice versa*. I see in the two columns here it is said that the duration of the case has been three years and *over*. I cannot understand how anything can be *over* three years. It may be more than three years, but I do not see how it can be *over*.

Dr. HAYES NEWINGTON.—It is complementary to "under."

Dr. MERCIER.—How can a place be under a year? It is not in space.

Dr. HAYES NEWINGTON.—It is understood by the people.

Dr. MERCIER.—You are applying terms of space to those of time. Three years *and more* if you choose.

The PRESIDENT.—Do you propose "less" and "more," instead of "under" and "over."

Dr. MERCIER.—Certainly.

Dr. STEWART.—I second it.

Carried.

The PRESIDENT.—I now put Discharge Table II to you.

Carried.

The PRESIDENT.—The next is Discharge Table III.

Dr. YELLOWLEES.—There are no comments from the Divisions on this table. I move its adoption.

Dr. HAYES NEWINGTON.—I second it.

Carried unanimously.

The PRESIDENT.—Discharge Table IV.

Dr. YELLOWLEES.—Of course some of the comments which have been made apply equally well here to the form of mental disorder on admission to those discharged recovered during the year.

Dr. HAYES NEWINGTON.—I second it.

Dr. MERCIER.—We take it that when Table IV is amended it will be substituted here.

The PRESIDENT.—Those in favour of this Table provisionally Carried.

Dr. YELLOWLEES.—We come now to the Death Group. None of the Divisions have made any amendment on it. It is a Table showing all the causes of death which entered into the deaths during the year, arranged as principal and contributory, together with correlations between them and certain selected causes. The Table speaks for itself. Some of the branches have not reached the Death Tables yet, and therefore there are no suggestions. That shows the value of our adjournment. As the Divisions have not reported, perhaps it would be fair and right that we should stop now, and wait until we have further suggestions. The Committee have no wish to snatch even a provisional approval.

The PRESIDENT.—Some of the Divisions have considered them; we have all had opportunities, and if some of the Divisions have not done it, it is not the fault of the others.

Dr. HAYES NEWINGTON.—There is probably as much statistical brain-power in this room as is ever at divisional meetings. There are gentlemen present who are capable of criticising these Tables on their own responsibility.

The PRESIDENT.—All these are provisional, and therefore if anything arises they can come up.

Dr. BOYCOTT.—With regard to correlated causes, such as influenza, epidemic dysentery, pneumonia, are they to be fixed, or to be *ad libitum*?

Dr. HAYES NEWINGTON.—There are spaces left to show that it is *ad libitum*.

The PRESIDENT.—I shall put this Death Table I.

Carried.

Dr. YELLOWLEES.—Death Table II. This is practically a repetition of our old Table, and in quinquennial periods as before. I should say that the causes of death, we have agreed, should be given in the terms used by the Registrar-General, so that there should be uniformity based upon that chief authority. I beg to move its provisional adoption.

Dr. HAYES NEWINGTON.—I second it.

Table II. was carried unanimously.

Dr. YELLOWLEES.—Now there is Table III, showing the total duration of the present attack of mental disorder in the deaths during the year. I do not know that it is of very great value, but it was in the old Tables, and we retain it. I do not know whether it teaches us much.

Dr. MERCIER.—Yes, I think it does. We have been discussing this matter in the Life Assurance Medical Officers Society, and the duration of life in insanity is a question of very great importance to them. The retention of this Table is very desirable.

Dr. HAYES NEWINGTON.—I am glad to hear that, because it was suggested all through to the Committee as being a very good thing if we could help the Insurance Offices, and not only them but the Commissioners, who have not the information which could be got here. I have endeavoured to do it myself, but I have never found anybody who could give me a satisfactory solution of the problem how to arrive at the probable life of a patient in an asylum. Obviously it is a matter of the greatest importance for people who are going to build new asylums to say how many they will build for. This Table and another (Discharge Group II) will go some way towards computing the average residence and duration of life in an asylum.

Dr. ROBERT JONES.—If I might be allowed one remark, I think that it is not the actual duration of every living lunatic's life, but the actual duration of life in the different varieties of insanity. We know what the average duration of the life of a general paralytic is, and fairly exactly the duration of life of most of the epileptics, and others. But this Table as at present constituted will not give us the information we require on that point. It takes every case, not really as suffering from a special or distinct variety of insanity, but as being a member of the asylum and as having died. I agree with Dr. Mercier that it is of the greatest possible importance that we should get, if possible, the average duration of life, or expectation of life, in the different varieties of insanity, and I beg to move that, if it is possible, without much elaboration, this Table be drawn up so as to give that information.

Dr. MORRISON.—What is the amendment?

Dr. ROBERT JONES.—That in order to arrive at the duration of life in the different varieties of insanity, not only in an insane person under a certificate, but in the various forms of insanity, the Table as presented be so varied.

Dr. MORRISON.—How shall you do it?

Dr. ROBERT JONES.—That is a matter to be left to the Statistical Committee.

Dr. HAYES NEWINGTON.—I might make an explanation. The Committee did consider that, and we had a Table correlating these two facts, but we were rather influenced by the consideration that it might be causing a lot of labour in addition to the other Tables. But now we know there is definite value put upon it, the Committee will be only too glad to consider it again. But there is this difficulty. You are going to correlate the form of insanity with the duration. Which form? What part of the patient's asylum life or even of his insane life shall we take? A case may be given as mania when he comes to the asylum and die a dement; when shall we take the form? When he dies, or when he first became insane, or when he was admitted? These are three distinct points of time. It will be necessary, if we are to have a Table whose value will compensate for the labour to be bestowed upon it, that we shall define the time. And I am afraid after discussion we may not agree as to which of these forms it would take.

Dr. MORRISON.—He may have come in because of some other condition. How shall you trace it in this man? I second the proposition. Let the Statistical Committee consider it. Probably they will find a solution.

Dr. YELLOWLEES.—I shall be glad if Dr. Jones will be satisfied with the promise of the Statistical Committee to give it their fullest consideration, and insert the desired correlation if they can.

Dr. ROBERT JONES.—I foresaw a great many of the difficulties, and I shall be quite satisfied if the Committee will take it into their consideration.

The PRESIDENT.—This Table must come up again in May. We do not know what the alteration will involve. It should come up again in May. We now come to Residue Table I.

Dr. YELLOWLEES.—There is a very important suggestion from Dr. Chapman in reference to this Table.

Dr. BOND.—In the light of a suggestion from Dr. Chapman, the Committee ask permission to temporarily withdraw this Table. A valuable point has been raised, and they propose to make further inquiry and repeat thereon when next the Tables come up for discussion.

The PRESIDENT.—Does the meeting approve of this suggestion to postpone the matter till May?

Agreed.

Now we come to Residue Table II.

Dr. YELLOWLEES.—It shows various forms of insanity in the Residue, to give an idea of what the asylum population is.

The PRESIDENT.—I take it that the feeling of the meeting is the same as about Tables IV and VI.

Dr. HAYES NEWINGTON.—We did receive a suggestion from the Secretary of the Irish Division, Dr. Dawson, that there should be a column for "curable" at the end of this. We gave it full consideration. We acknowledged the fact that the Commissioners, in England at any rate, do ask the Superintendents to form, at the end of the year, some judgment as to what condition their cases are in; but we concluded that, while no particular benefit would arise, it would perhaps be a little invidious to have such a column as that. It would depress the public mind if they thus saw the wreckage of incurable insanity in our asylums. Therefore we thought it best to omit it.

Dr. YELLOWLEES.—I have nothing further to propose; the remaining Tables are the Registers, which you have already dealt with.

Dr. BOYCOTT.—I would ask whether the Registers are to be pauper and private, mixed, or are there to be separate Registers for pauper and private?

Dr. MERCIER.—I gather that this Table is still under discussion.

Dr. YELLOWLEES.—It depends on the size of the asylum whether you can put the pauper and private patients in the same Register book. They must all be entered in their order of admission in one Civil Register; the Medical Registers may be in separate books for each class.

Dr. MACDONALD.—It is not simply that. As the law stands, if you have one private patient in your asylum, you must keep one Register for that one patient.

The PRESIDENT.—We have got through these Tables better than we expected; and now I have to announce, in accordance with the resolution passed, that this Annual Meeting is further adjourned to the time and place selected by the Council, in May, 1905. I merely announce it here. It is to be in London, probably on May 25th.

Dr. MERCIER.—There is Residue Group II. And I was going to suggest that Dr. Hayes Newington's reason for not giving an "incurable" column is most inadequate. I think the public is entitled to know, and ought to know, all the information which we can furnish to them; and it would prevent them cherishing hopes which are doomed to disappointment, and give them a better idea of the difficulty of our task if we gave them a column of incurable cases.

The PRESIDENT.—Do you make an amendment?

Dr. MERCIER.—It is only provisional approval, and I make the suggestion, and hope the Table will be passed.

The PRESIDENT.—I omitted to put this Table formally. Those who are in favour of Residue Table II being provisionally accepted.

Carried.

The PRESIDENT.—That concludes the business of the adjourned Annual Meeting, as far as we can do it to-day. And this meeting is further adjourned to May 18th, or 25th, in London. Now we will have the General Meeting.

Dr. ROBERT JONES.—Is it too much before we part to request that we be permitted to pass a resolution thanking our old friend and chief guide, the Chairman of the Statistics Committee, for the great trouble that he has taken in the great work presented so clearly before us (Hear, hear), and also for coming on all the numerous occasions that he has done from Scotland here. His vigour is enviable, and we hope we shall have his company for very many years. It has been indispensable to-day. (Applause.)

The PRESIDENT.—There is no need for this to be formally seconded. We thoroughly agree with what Dr. Robert Jones has said, that our best thanks are due to Dr. Yellowlees and the Committee for the enormous labour they have given to the matter.

Dr. YELLOWLEES.—I thank you very sincerely, both in the name of the Committee and in my own. The Committee deserve it more than I do, and especially our Secretary, Dr. Bond, and Dr. Hayes Newington. It will be a perpetual monument to Dr. Newington that he suggested these new and comprehensive Registers; the Committee heartily accepted the idea, and are proud that they have been approved to-day. We have all worked with a will, and I am thankful that we seem to be nearing the end of our task, although it has never been anything but a pleasure to us all. I thank you heartily for your kind words.

ORDINARY GENERAL MEETING.

The PRESIDENT.—We still have the Ordinary General Meeting, and I hope sufficient members will remain to form a quorum.

The minutes of the last Ordinary Meeting were approved and confirmed, the minutes having already appeared in the JOURNAL.

The names of candidates for election were read out, and the gentlemen were duly elected.

The PRESIDENT.—I now call upon Dr. Carlyle Johnstone to move the resolution which is on the agenda.

Dr. CARLYLE JOHNSTONE.—I will not bring it forward to-day, Mr. President; there is barely a quorum present and my seconder has left the meeting. I will propose it at our next quarterly meeting.

The PRESIDENT.—Is it your pleasure, gentlemen, that Dr. Johnstone be allowed to withdraw this? ("No.") It is on the agenda-paper, and I am afraid we must take it unless I have the approval of the meeting to defer it.

(Dr. Carlyle Johnstone having been found to have left the room, the matter was not pursued.)

FRACTURES IN THE INSANE.

Discussion to be opened by Dr. J. F. BRISCOE.

Dr. YELLOWLEES.—Is it fair to ask Dr. Briscoe, now that nearly everyone has gone, to read his paper?

The PRESIDENT.—It is as he likes. He has taken the trouble to come. If he would postpone it till a further meeting it could be more fully discussed.

Dr. ROBERT JONES.—For the next meeting the papers and agenda are already made up—that is, for the February meeting; and I hope that Dr. Briscoe will agree to show and explain his very interesting skiagrams, and give a general outline of his paper; but it is, of course, just as he wishes.

Dr. BRISCOE then read his paper and demonstrated by drawings, photographs, and radiographs the general surgical treatment of fractures.

In the evening the members dined at the Café Monico, Regent Street.

 SOUTH-EASTERN DIVISION.

The Autumn Meeting of the South-Eastern Division was held, by the courtesy of Dr. Chambers, at the Priory, Roehampton, S.W., on Thursday, October 6th, 1904.

Among the members present were Dr. Percy Smith (President), Dr. Ernest White (ex-President), Mr. G. T. Hine, Drs. R. H. Cole, F. Watson, P. Langdon Down, H. G. Hill, G. S. Elliot, G. J. Eady, D. Bower, W. I. Donaldson, P. H. Stratton, J. L. Gordon, F. W. Edridge-Green, W. H. Haslett, F. R. P. Taylor, E. S. Pasmore, T. O. Wood, C. H. Bond, W. D. Moore, C. H. Fennell, W. H. Roots, F. W. Mott, G. H. Savage, F. G. Crookshank, D. Hunter, F. H. Edwards, W. Rawes, T. B. Hyslop, H. E. Haynes, R. H. Steen, A. S. Newington, G. H. Johnston, R. J. Stilwell, H. J. Macevoy, J. W. Higginson, G. E. Shuttleworth, W. H. Bailey, and A. N. Boycott (Hon. Sec.).

The house and grounds were inspected, and subsequently Dr. Chambers entertained the members at luncheon.

The meeting of the Divisional Committee was held at 2.15 p.m., Drs. Edwards, Rawes, Hunter, Stilwell, and Boycott being present.

The General Meeting of the Division was then held, Dr. Percy Smith (President) in the chair.

The minutes of the last meeting, having appeared in the JOURNAL, were taken as read and confirmed.

An invitation from Dr. D. G. Thomson to hold the Spring Meeting of the Division at the Norfolk County Asylum, at Thorpe, near Norwich, on April 27th, 1905, was unanimously accepted with much pleasure.

The following gentleman was elected as an ordinary member of the Association.—Samuel J. Barton, M.D. Dub., Physician to the Norfolk and Norwich Hospital, and Consulting Physician to the Bethel Hospital, Norwich. Proposed by Drs. J. Fielding, D. G. Thomson, and Boycott.

The following routine was adopted for the nomination of Hon. Secretary and representative members of the Division on the Council:—"That before the Spring Meeting of the Division the Hon. Secretary should send notices to the members of the Division requesting members to send in nominations. In the event of a sufficient number of nominations not having been received by the Hon. Secretary a calendar month before the day of the meeting, the Hon. Secretary should then be empowered to call a special meeting of the Committee of Management to make the necessary nominations."

The report of the Statistics Committee was considered, and on the motion of Dr. Edridge-Green, seconded by Dr. T. O. Wood, "That the report be approved by the Division," it was decided to go through the tables seriatim. The tables as far as and including Discharge Group Table II were agreed to, with the following amendments:

Admission Group Table II.—On the motion of Dr. TAYLOR, seconded by Dr. HYSLOP, it was agreed to recommend that the word "*probable*" should be inserted before the word *duration* in the first column.

Admission Group Table V.—On the motion of Dr. BOYCOTT, seconded by Dr. EDRIDGE-GREEN, that the existing table of occupations be retained, it was decided to agree to the new table, provided that it be expanded to include the actual occupations.

A further amendment, moved by Dr. MOTT, and seconded by Dr. BOYCOTT, was agreed to, "That a heading be added to show the numbers of admissions connected with the liquor trades."

Admission Group Table VI.—On the motion of Dr. BOYCOTT, seconded by Dr. MOTT, it was resolved to recommend the addition of the headings in Admission Group Table IV to the columns in Table VI showing co-existing conditions.

Admission Group Table VII.—On the motion of Dr. BOYCOTT, seconded by Dr. MOTT, it was agreed to recommend the omission of the words "*Not first attack*" and the insertion of the words "*if any*" after "*previous attacks*"; also the insertion of another line "Have had no prior attacks" before the line "Have had one prior attack."

Discharge Group Table I.—On the motion of Dr. BOWER, seconded by Dr. MOTT, it was agreed to recommend the substitution of the word "*improved*" for the word "*relieved*."

Discharge Group Table II.—On the motion of Dr. MOTT, seconded by Dr. BOYCOTT, it was agreed to recommend the deletion of this table.

Owing to pressure of time the further consideration of the tables was adjourned to the Spring Meeting, 1905.

A lantern demonstration was given by Dr. Mott, F.R.S., illustrating the morbid changes in the brain in sleeping sickness. A vote of thanks was accorded to Dr. Mott for his interesting demonstration.

The president regretted that time did not permit Dr. Crookshank and Dr. Steen to read their papers on "The Management of Early and Ill-defined Cases of Mental Disorder" and "Mental Disease with Exophthalmic Goitre" (see page 128).

A vote of thanks was unanimously passed to Dr. Chambers for so hospitably receiving the Division. The members dined together afterwards at the Café Monico.

NORTHERN AND MIDLAND DIVISION.

The Autumn Meeting of the Northern and Midland Division of the Medico-Psychological Association was held at the Cheshire County Asylum, Macclesfield, on October 13th, Dr. Sheldon in the chair.

There were present Drs. Hitchcock, Izard, Johnstone, Kaye, Legge, McConaghey, T. W. Macdowall, Macphail, Mackenzie, Menzies, Middlemass, Miller, Pierce, Sheldon, and Sutcliffe, and one visitor.

The following business was transacted:

Minutes of last meeting read and confirmed.

Drs. Macphail, T. W. Macdowall, and Hitchcock were appointed a Divisional Committee.

Arthur C. Nash, M.R.C.S., L.R.C.P., Assistant Medical Officer, Derby County Asylum (proposed by Drs. Legge, Pierce, and Mackenzie), was elected an ordinary member of the Association.

At the suggestion of Dr. BEDFORD PIERCE, it was decided that the next meeting of the Division shall be held at the Retreat, York, on May 4th, 1905.

Dr. MCCONAGHEY read his paper on "Dementia Præcox and Adolescent Insanity." At the conclusion of the paper Dr. McConaghey showed a number of illustrative cases of adolescent insanity, and demonstrated the various features of each.

Dr. A. D. THOMPSON read a paper on a case of pyæmia which was successfully

treated with anti-streptococcic serum, although when the treatment was commenced the patient appeared to be moribund.

Dr. Thompson afterwards showed three cases of micro-cephalic idiocy.

Dr. MACPHAIL expressed the general opinion of the meeting that it was much indebted to Drs. McConaghey and Thompson for exhibiting such interesting cases.

The Report of the Statistical Committee was discussed at some length. Dr. BEDFORD PIERCE explained several of the recommendations of the Committee, and extracts from a criticism by Dr. Mercier were read. A general approval of the tables proposed in the report was expressed, and the suggested division of the registers into civil and medical also met with the approval of the meeting.

There was, however, a decided expression of opinion that before being adopted by the Association the proposed tables should be submitted to an expert for criticism.

The following resolutions were adopted upon specific points, and the Secretary instructed to send them to the Secretary of the Statistical Committee.

(a) Proposed by Dr. MENZIES, seconded by Dr. LEGGE, and carried *nem con.*

"That General Table II be expanded, so that the total admissions are subdivided so as to discriminate between direct admissions and transfers, lapsed orders, etc."

(b) Proposed by Dr. MENZIES, seconded by Dr. SHELDON, and carried *nem con.*

"That the term 'First Attack' (*vide* Admission Group, Table 1, p. 13, *et seq.*) should be defined so that it may be quite clear whether or no uncertified insanity is to be considered an attack of insanity for statistical purposes."

(c) (Table IV. Forms of Insanity.) It was proposed by Dr. MENZIES, and seconded by Dr. LEGGE—"That Table IV be referred back to the Committee for further consideration." An amendment, proposed by Dr. MACDOWALL, and seconded by Dr. HITCHCOCK, was carried by seven to three—"That Table IV be accepted, but that, in the opinion of the Division, the time has come when the Association might with advantage consider the question of the classification of insanity."

(d) Proposed by Dr. MACDOWALL, and seconded by Dr. SHELDON—"That Table V be accepted if classification of occupations therein satisfies the Commissioners in Lunacy."

(e) (Table VI. Ætiological.) There was a decided expression of opinion in favour of the proposed table as a whole. Dr. MENZIES proposed, Dr. SHELDON seconded, and it was carried unanimously—"That Subdivisions c (Heredity) and d (Congenital and Infantile Mental Deficiency) should precede all the other causal factors, and be separated from Mental and Physical Stress."

At the conclusion of the meeting Dr. MACDOWALL proposed, and Dr. MACPHAIL seconded, a hearty vote of thanks to Dr. Sheldon for his hospitality, which was carried by acclamation.

The members afterwards dined at the Midland Hotel, Manchester.

SOUTH-WESTERN DIVISION.

The Autumn Meeting of the South-Western Division was held, by invitation of Dr. Lionel A. Weatherly (who kindly entertained the members), at Bailbrook House, Bath, on Friday afternoon, October 29th, 1904.

Dr. Lionel A. Weatherly was voted to the chair.

Dr. MacDonald said before they proceeded with the business of the day they could not but make reference to what they all felt was a great blank in that room, occasioned by the death of their good friend Dr. Benham, who, as he was quite sure was well known to them all, had been one of the strongest, most active, and most able members and supporters not only of that Division, but of the entire work of the Association. While he was not one who paraded his views or himself very much, yet to those who knew Dr. Benham he was what was something more, a sound and true friend. (Hear, hear.) He felt himself, having known him for

thirty years—for they were students together at Aberdeen—that he had lost a friend. He desired that the following resolution of their regret be entered on the minutes of the proceedings of the Division :

“ That the members of the South-Western Division of the Medico-Psychological Association desire to express their deep and great regret at the loss they have so unexpectedly sustained by the sudden death of their valued friend and member, Dr. H. A. Benham, who, from its initiation, was one of the truest and warmest supporters of the South-Western Division.”

Dr. AVELINE seconded the motion, and associated himself with the expression of deep regret which Dr. MacDonald had uttered. As one who had worked with him for some years as an assistant medical officer, and who since then had been associated with him as a friend, he felt he could speak of his constant kindness, his generosity, his unswerving loyalty, and fidelity.

Dr. WHITE said, as the immediate past President of the Association, he felt, on an occasion like that, he could not allow the resolution to pass without saying a few words with regard to their late lamented friend, Dr. Benham. They knew how ably he filled the post of Registrar of the Association, the marvellous tact and aptitude of the man, his great administrative capacity, and his sound common sense. Those qualities endeared him to one and all of them.

The CHAIRMAN, in putting the resolution, which was carried all upstanding, said Dr. Benham was a very old friend of his own, and he valued him most highly, as they all did.

NEW MEMBER.

Dr. James Alexander Gibb, M.B., Ch.B., A.M.O., of the Dorset County Asylum, was unanimously elected a member.

THE NEXT MEETING.

Dr. MACDONALD gave a hearty invitation to the members to hold their meeting on April 11th, 1905, at the home of his labours, Dorchester.

On the motion of Dr. AVELINE the invitation was cordially accepted.

THE STATISTICAL COMMITTEE'S REPORT.

The meeting proceeded to discuss the new tables proposed by the Statistical Committee, table by table.

The following were the alterations suggested, the other tables being passed without amendment :

Table I.—Dr. MACDONALD moved that a column be added (by the subdivision of column 1) showing private patients. Dr. MACBRYAN seconded, and this was agreed to.

Admission Group Table IV.—On the motion of Dr. MACDONALD, seconded by Dr. MACBRYAN, it was decided to recommend the deletion of the words “ including dementia præcox.” It was also resolved to recommend the substitution of “ general paralysis of the insane ” for “ general progressive paralysis.”

Residue Group Table II.—The same alterations were made as in the last-mentioned table.

Civil Register.—On the motion of Dr. MACDONALD, seconded by Dr. AVELINE, it was resolved to delete the column “ Criminal (not included in private),” as having no useful purpose.

Register of Discharges and Transfers, and Register of Deaths.—In both these tables it was resolved that the column “ Criminal ” be deleted.

Dr. COTTON, of the Bristol Prison, then read a paper on “ Mental Unsoundness and Mental Disease in a Local Prison ” (see page 99).

The members and friends dined afterwards at Fort's Restaurant, Bath.

SCOTTISH DIVISION.

A meeting of the Scottish Division of the Medico-Psychological Association was held, by the invitation of the Glasgow Lunacy Board, at the District Asylum, Woodilee, Lenzie, on Friday, November 4th, 1904, at 2 o'clock.

The following members were present: Drs. Angus, Carlyle Johnstone, Clouston, Devon, Easterbrook, Hannay, Henderson, Hotchkiss, Keay, Kerr, Law, Macdonald, McDowell, Marr, Mitchell, Oswald, Parker, Richard, G. M. Robertson, A. Robertson, Rorie, Sir John Sibbald, Urquhart, Watson, and Lewis C. Bruce (Divisional Secretary).

Sir John Sibbald was called to the chair.

The minutes of last meeting were taken as read.

Letters of apology were intimated from Drs. Turnbull, Yellowlees, Campbell, and others.

Patrick Shaw, L.R.C.P. and S.Edin., L.F.P.S.Glasgow, Assistant Medical Officer, Inverness District Asylum, Inverness (proposed by Drs. Campbell, Havelock, and Keay), applied to be admitted as a member. After ballot he was declared to be unanimously elected.

By the kind invitation of Dr. Urquhart and the Board of Managers of the Murray's Royal Asylum, Perth, the Spring Meeting of the Division will be held at Perth on Friday, the 26th March, 1905, or upon any other date which may be more convenient to Dr. Urquhart or the majority of the members of the Division.

It was decided to nominate Dr. Yellowlees and Dr. Turnbull as representative members of the Division on the Council, and Dr. L. C. Bruce as Honorary Divisional Secretary, these nominations to be confirmed at the Spring Meeting of the Division.

The members of the Division then adjourned to the reception house and saw clinical apparatus and clinical cases, and afterwards, in the laboratory, a lantern demonstration illustrating facial expression in the various forms of insanity, an exhibition of palate casts, a practical demonstration of plaster cast-taking, and a pathological demonstration.

At 4 o'clock the members met to consider the report of the Statistics Committee as to the revision of the statistical tables. After much discussion Table IV was amended, Drs. Carlyle Johnstone, Bruce, Havelock, and Macdonald entering their dissent. Table VI was referred back to the Committee undiscussed, and the suggestion that the remaining tables be adopted *en bloc* was negatived unanimously.

Dr. URQUHART moved: "That this meeting of the Division be adjourned to a convenient date as may be fixed by the Secretary, and that we suggest that the final debate by the Association upon these tables should be adjourned till next annual meeting.

This was seconded by Dr. DEVON, and unanimously agreed to.

A vote of thanks was given to Sir John Sibbald for presiding, and the company thereafter were entertained to dinner under the presidency of Dr. Bruce, the Convenor of the Woodilee Asylum House Committee of the Glasgow District Lunacy Board.

IRISH DIVISION.

AUTUMN MEETING.

The Autumn Meeting of the Division was held at the Royal College of Physicians, Dublin, on Friday, November 4th. Dr. F. E. Rainsford occupied the chair, and there were also present Drs. C. Norman, T. Drapes, R. R. Leeper, M. J. Nolan, H. M. Eustace, and W. R. Dawson (Hon. Sec.). Letters regretting inability to attend were received from the President and Dr. Mills, and telegrams from Drs. Woods and Oakshott.

The minutes of the last meeting were read, confirmed, and signed, and the Secretary made a short report with reference to the new regulation for the training

of nurses and attendants. He also announced that Dr. Rainsford had invited the Division to hold their Spring Meeting at the Stewart Institution, as, owing to building operations in progress, he was unable to have the Autumn Meeting there, as originally arranged. The invitation was unanimously accepted.

THE REPORT OF THE STATISTICAL COMMITTEE.

This was then considered, and, after a prolonged discussion, the following resolution was proposed by Dr. DRAPES, seconded by Dr. NORMAN, and unanimously adopted:

"That the Irish Division of the Medico-Psychological Association desire to signify their general approval of the Statistical Tables as amended by the Statistical Committee, but earnestly recommend the following suggestions to the Committee:

"1. That the Committee reconsider the form of Table IV of Admission Group with a view to its being framed more in accordance with the principles underlying all truly scientific classifications (as, for instance, those adopted in the case of plants and animals), with classes, sub-classes, and divisions following in natural serial order.

"2. That in any case such a debatable term as Dementia Præcox should be omitted from the classification.

"3. That in Table IV the term 'Stress' is not properly applicable to heredity, and should be reserved for causes of insanity referable to circumstance and environment.

"4. That in the Civil Register under the headings Discharged, Transferred, and Died the sexes should be differentiated.

"5. In the same table a column stating the nativity of the patient should precede the column 'Usual place of Abode.'

"6. That a more convenient order for the earlier columns of the Register would be—

"1. Number in order of admission.

"2. Christian and Surname.

"3. Date of Admission.

"4. Date of Previous Admission, etc. etc."

The Secretary was directed to forward a copy of this resolution to the General Secretary, together with a short report of the result of the discussions, in which the following further suggestions should be embodied, *vis.*:

Of Admission Group:

Table IV.—If the table recommended by the Committee is retained, "Acute Delirious Mania" should be added, the term "Delusional Insanity" replaced by one less ambiguous, such as "Paranoia," or "Insanity with fixed delusions," and the printing of the dementias so arranged that "Senile," "Organic," and "Paralytic Dementias" will not be placed side by side with "Primary" and "Secondary" under one denomination. "Acute" should also be substituted for "Recent."

Table VI.—"Heredity" should stand by itself, first in the list of causes.

Of Discharge Group:

Table I.—"Sent to care of friends" should not be placed on all fours with "Relieved" and "Not improved."

(The differentiation of the sexes, as suggested in the resolution, for certain columns of the Civil Register is necessary in order to enable Table I of the Discharge Group to be compiled therefrom.)

Dr. DRAPES was also requested to prepare a written statement of his views, and to forward same to the Divisional Secretary for the use of the Committee.

It was also thought desirable, if possible, in addition to a "Nativity Column" as suggested, to add a column showing whether or not the patients had lived for a long period in other countries.

COMMUNICATIONS.

1. Dr. Conolly Norman read a paper entitled "Modern Witchcraft: a Study of a Phase of Paranoia" (see page 116).

2. Dr. Leeper read "Notes on Two Cases of Cancer of the Liver in Chronically

Insane Patients," and exhibited some microscopic preparations to illustrate his paper.

The proceedings them terminated.

RECENT MEDICO-LEGAL CASES.

REPORTED BY DR. MERCIER.

[The Editors request that members will oblige by sending full newspaper reports of all cases of interest as published by the local press at the time of the assizes.]

Rex v. Holmes.

Albert James Holmes, 23, clerk, was indicted for the wilful murder of his nephew, Thomas Uric Copland, a child *æt.* 4 months. Prisoner, who is paralysed on one side, lived at home with his mother, brother, and married sister. He has been prevented by his paralysis from obtaining constant work, but had occasional odd jobs. On October 1st he was taken to task by the brother for leaving in the rain some books which had been given him to sell, and, after some words, the brother, who maintained the home, told the prisoner that, if he could not appreciate the kindness shown him, he had better clear out. The next morning the prisoner asked his mother where he should go, and she suggested that he should go and dine with a sister. He replied, "I will go, and next day I will go round the country to look for work." He then left the kitchen, shutting the door, took from the parlour a brass poker; went upstairs to the bedroom in which the child was lying in bed; and beat him about the head with the poker so that he died within an hour or two. Prisoner then left the house, and nothing was heard of him until he gave himself up at Kingston Police Station on October 4th, saying, "I wish to give myself up for killing my brother-in-law's child on Sunday last." Later, he said, "My mother, my brother, and my brother-in-law have been trying to get rid of me because I am a cripple and been out of work. I had a row with my brother on Saturday last, and it came to a climax, so on Sunday morning I got a brass poker and struck the child on the head." On the way to the petty sessions he said, "Every time I passed a policeman I thought he was going to get hold of me." Prisoner had had no quarrel with his brother-in-law, nor is any reported with his sister. The plea of insanity was raised, and it was elicited that the prisoner had been "strange in his manner," and had been reading pamphlets on hypnotism from America. Dr. Scott, medical officer of Brixton Prison, was called for the defence. During the time prisoner had been in custody, he had had a discharge from his left ear, which was on the same side as the paralysis. Infantile paralysis, from which prisoner suffered, was sometimes associated with mental impairment, not always. He considered the prisoner weak-minded.

Mr. Percival Hughes, counsel for the defence, urged that the very brutality of the act showed that the prisoner's mind could not have been under control. Counsel contended that the act was committed under an uncontrollable impulse arising from homicidal mania. After an hour's consideration the jury found the prisoner guilty, but very strongly recommended him to mercy. The judge expressed his concurrence in the verdict, and said he would support the recommendation in every way he could.—Central Criminal Court, Mr. Justice Grantham, November 15th.—*Times*, November 16th.

It has frequently been stated in these pages that the knowledge of right and wrong test of insanity is not rigorously applied by judges, except in cases in which they have satisfied themselves, by reading the depositions, and by the tenour of the evidence, that the prisoner ought to be convicted. The case above reported seems to corroborate the statement. The facts that the prisoner gave himself up to the police, and stated that he thought every time he passed a policeman the policeman was going to get hold of him, seem to indicate clearly that

he did know that he had done what was illegal. Dr. Scott has been kind enough to send me a note of his evidence, from which it appears, as I anticipated, that he did not make any suggestion that the prisoner was weak-minded as a result of his infantile paralysis, but Dr. Scott did say that the prisoner's crippled condition would probably tend to make him sensitive, and jealous of people more healthy and active than himself. This is very true, but it is, of course, very different from saying that infantile paralysis is associated with mental impairment. It appears from the evidence that the prisoner acted with deliberate intention, and knew what he was doing and that it was illegal. The contention that he suffered from uncontrollable impulse is entirely unsupported by the evidence. The only uncontrollable impulse, properly so called, known to alienists, is obsession, and there is not the slightest evidence of obsession in this case. Counsel for the defence is reported to have contended that the prisoner suffered from "homicidal mania." It is very doubtful whether there is any mental disorder, apart from obsession, which can rightly be called homicidal mania; and if there be, there is no evidence whatever, apart from the act itself, that the prisoner suffered from this, or from any other, mental disorder.

It does not appear in the *Times* report, but Dr. Scott informs me that the judge allowed evidence to be given of conduct of the prisoner's father, which may have indicated insanity in him, and thus have favoured the hypothesis of insanity in the prisoner. The admission of such evidence shows how willing judges are nowadays, as has been frequently pointed out in these reports, to relax the strict rules of evidence in favour of a prisoner indicted for a grave offence.

The verdict seems to me right. It would be impossible to hold a prisoner insane upon such evidence as was adduced in this case, without admitting that every crime of unusual character must be held to be the outcome of insanity. It is true that the crime was unusual, and that it was committed on a motive which seems very inadequate; but undoubtedly the prisoner had an intelligible motive, and the act was done with deliberation. The prisoner was probably not up to the normal standard of intelligence, and the jury seem to have given to this fact, and to the unusual character of the crime, the fullest possible consideration, as is shown by their strong recommendation to mercy. The convict will of course be reprieved, but if he were hanged it would be very difficult to contend that such a fate is in excess of his deserts. The case is a fresh instance of the application of the principle of limited, or impaired, or partial responsibility, which is now so frequently acted upon, although it has no formal expression in legal doctrines.

The convict has since been reprieved.

Rex v. Horton.

(We owe this case to the kindness of Dr. Cleland, who sent a very full report from Australia.)

Thomas Horton, 24, bootmaker and juggler, was indicted for the murder of his wife. They had been married three months only. The family consisted of three children of Horton's by a former wife, and one child of his wife's by another man before she was married. Deceased had left the prisoner on account of his violence towards her, and was living with her mother. On the evening of Feb. 27 she was walking in the street with two other girls, when the prisoner met them and asked

his wife to go down a lane with him, saying he had a present to give her. She refused, saying, "Yes, I know; a present of bullets." He followed them about until his wife threatened to give him in charge, and shortly after, as the three girls were walking together arm in arm, he shot his wife three times in the back with a revolver, so that she died in a few minutes. He then ran away. On the following day his brother-in-law met him and persuaded him to give himself up, but the prisoner refused and absconded; and was subsequently arrested in another part of the country. It was proved that he had purchased the revolver half an hour before the crime.

For the defence it was shown that the prisoner's father had died in Parkside Asylum; that the prisoner's mother also had been in the asylum for a few days; that she had had five children, all of whom with the exception of the prisoner had died of convulsions; that the prisoner also had had convulsions (in childhood probably). That he had had a sunstroke, and been queer in his behaviour afterwards; that he had had a severe fall, after which he was unconscious, and after which he stuttered; that he had had another blow on the head which also rendered him unconscious; that at the factory at which he worked, he was known as "Silly Tom," and "Cranky Tom," was difficult to teach, passionate, and complained that people were trying to poison him through the tap water.

Dr. Cleland, resident medical officer at Parkside Asylum, deposed that he had had there under his care the prisoner's father, who suffered from epilepsy; that the prisoner gave the following account of the crime:—He remembered nothing about the shooting. He remembered nothing until he found himself on the parade ground. He then returned to Hindley Street, in which the crime was committed, with the intention of going to his wife's home. When he was standing in the street, he heard some people referring to a woman having been shot, and then the whole thing seemed to flash across his mind, and he ran away in a fright. Dr. Cleland was inclined to think the statement of the prisoner pointed to a post-epileptic condition at the time of the crime. "In my opinion he is permanently in such a state of mind that at no time does he know the difference between right and wrong."

Dr. B. O. Morris, gaol surgeon, had frequently visited the prisoner in gaol, and always found him coherent and rational in conversation until April 8. (He was arrested on Feb. 28, the day after the crime.) Dr. Morris was of opinion that the prisoner had not for years had a properly sound mind, and for that time had not been able properly to distinguish between right and wrong. Pressed in cross-examination, Dr. Morris admitted that he had doubts as to the prisoner being insane. Further pressed, he made the damaging admission that he had not read *Mercier on Insanity*. "What!" exclaimed counsel for the defence, "and yet you call yourself an expert on lunacy!" (Expert witnesses, please note.)

Dr. Ramsay Smith had examined the prisoner, and found (so it is reported) no physical signs of mental or bodily unsoundness. In Dr. Smith's opinion the prisoner was sane, and able to distinguish between right and wrong; and was shamming loss of memory as to the occurrence of the crime. Dr. Smith thought it possible, but not probable, that the prisoner was suffering from epilepsy.

The judge told the jury that Dr. Cleland's opinion was entirely based on the belief that the prisoner was not malingering. If the prisoner was malingering, all Dr. Cleland's evidence would go for nothing. Dr. Cleland had said "I am inclined to think he was not feigning madness, and to the best of my judgment he was not malingering."

After an hour's deliberation, the jury found the prisoner *guilty*.

Criminal Court, Adelaide, S.A., April 14, Mr. Justice Boucaut. *Adelaide Advertiser*, April 15.

On the whole, it appears that justice was done. The prisoner undoubtedly had a shocking heredity, and a very unfortunate personal history; and there can be no doubt that he is not a normal person, nor does he possess a normal mind. But the question the jury had to determine was not whether he was a thoroughly normal person, but whether he was sufficiently aware of the turpitude of his act to make it

right to convict him for it. The premeditated character of the crime is strongly in favour of the verdict. The prisoner purchased the revolver half an hour before the crime. He tried to induce his wife to leave her friends and go alone with him into a lane. Failing in this, he shot her, not during an altercation, but after she had left him, he followed her and shot her in the back. He then ran away, and left the town for another part of the country. Such a series of acts is consistent neither with epileptic furor nor with post-epileptic automatism. In the first case, there is a sudden, unpremeditated outbreak of brutal and excessive violence. In the second, there is no deliberation, no preparation, and no recollection whatever, after consciousness returns, of the automatic act. Moreover, the act done in post-epileptic automatism is always an habitual act, one that has been done many times before ; and it is always a caricature of a normal act. In the case of shooting with a revolver, the post-epileptic automaton would be more likely to shoot an unoffending bystander than a person to whom he was hostile. The prisoner's own account is inconsistent with post-epileptic automatism. He said that he remembered nothing about the shooting until he came back to the scene of the crime, and then, when he heard people talking about it, the whole thing seemed to flash across his mind. If he had done the act during post-epileptic automatism, he would have been unconscious at the time, and under no circumstances thereafter would he have had the slightest recollection of it. As it was, he ran away at once, and subsequently absconded, showing that he knew quite well, both at the time and afterwards what he had done. His invitation to his wife to go alone into the lane with him is strong evidence of premeditation, as well as his purchase of the revolver ; and it must not be forgotten that his wife was afraid both that he would shoot her, and that the invitation was given for this purpose. The opinion of Dr. Cleland, who saw the prisoner many times, and is a skilled and experienced alienist, is entitled to great respect ; but it must not be forgotten that feigning forgetfulness of all the circumstances of the crime, forgetfulness which is disprovable in some particular, is the most frequent subterfuge of the criminal who relies upon a false plea of insanity.

It must be admitted that the prisoner was a poor creature, with about as bad an heredity as it is possible for a man to have. But heredity is not conclusive evidence, either of sanity or of insanity. The tendency is very strong for the offspring to return to the normal from which the parents have deviated. It would be dangerous, and more, it would be unjust, to argue irresponsibility from insane parentage alone. Nor was that attempted in this case. The prisoner was known among his work-mates as "Cranky Tom," and "Silly Tom," and irrational acts in his previous life were recounted at the trial. Clearly, therefore, he was far from being a normal person ; but was he so insane that he ought not to have been found guilty? Upon the facts that are included in the report that is to hand, I cannot think so. He came of the stock of which come both lunatics and criminals, and he partook of the nature of both ; but, as far as can be judged from the facts elicited at the trial, in him the criminal preponderated over the lunatic. If he had been tried in this country, he would almost certainly have met the same

fate; but his mental condition would have been investigated after conviction, and he would probably have been reprieved. But even if he had been hanged, I do not think that justice would have been outraged. The comment of the prisoner's counsel, upon the literary attainments essential to the expert in lunacy, has my cordial concurrence.

"PRIVATE" CARE OF THE INSANE IN BELGIUM.

Under the heading of *The very lamentable condition of the Care of the Insane in Belgium*, our excellent contemporary, the *Psychiatrisch-neurologische Wochenschrift*, draws attention to a report read by Dr. Lentz at the Royal Academy of Medicine in Brussels. Dr. Lentz, as the *Wochenschrift* reminds its readers, holds the office of *Inspecteur adjoint des asiles d'aliénés de Belgique*, and is the oldest and most experienced of Belgian alienists. His utterances are therefore of much weight, and what he says must be regarded as delivered under the gravest sense of responsibility. Our contemporary quotes his report in the original French, which may be rendered as follows:

"There is, in Belgium, a very important work—namely, the care of the insane—which has been completely given over to private enterprise [*i.e.* to the religious orders, as the German transcriber notes]. I say completely, for of the fifty establishments, if one leaves out the special divisions in St. John's Hospital, there is not one—not even of the State asylums—which is exclusively managed by public authority.

"Private enterprise, then, has been absolutely supreme; it has only been stimulated by State inspection. Well, let us see what this work, thus given up to private enterprise, is worth, above all from a medical point of view, for it is especially that which characterises and gives value to the whole organisation. Let us see if the medical organisation of these asylums answers really to the demands of modern science, and to the progress which it has effected elsewhere, and at first I shall not speak of the unflattering criticisms which have been circulated by the German, Dutch, and French physicians, who took part in the Congress for the Treatment of the Insane at Antwerp. I shall not speak of the still less flattering reflections which have appeared in a certain foreign paper, and which are far from being in praise of our mental medicine, or of our alienist physicians. I only want to quote facts, the reality and the value of which cannot be contested. The first of these facts refers to the number of physicians attached to our different asylums. While in most countries—Germany, England, and Holland especially—asylums holding 500 to 1000 patients have all five to ten medical officers, all alienists, all living in the asylum, and all working exclusively there; these same asylums in Belgium, with very nearly the same number of inmates, have only one physician, non-resident, and engaged for most of his time in private practice. There is even one place where two large asylums have only one specialist. What can one physician do?—I omit the consultant (adjoint), who is not an alienist, who does not treat mental cases, but only incidental maladies. What good can be done by one physician in charge of 500 to 900 lunatics? What can a service be worth that is thus cut down? Also look at the results. Three great progressive steps have characterised these last thirty years of psychiatric evolution—non-restraint, treatment by rest in bed with prolonged baths, and the extension of the Family Care system.

"Germany, Holland, England, and even France, often so much inclined to resist foreign innovations, have all vied zealously with each other in the application of these modes of treatment to the patients in their asylums. Belgium alone has remained inert, nay, I even say has shown itself obstructive; some Belgium alienists have offered a stubborn opposition to the progress effected in the neighbouring countries.

"For many years England, Germany, and Holland have no longer known

shackles, but it is barely a year since one asylum only in Belgium introduced non-restraint, and even then under material conditions, which seem to leave much to be desired. Everywhere else restraint still remains in full force.

"For many years treatment by rest in bed, combined with prolonged baths, has become general in Germany, in England, and in Holland, and has given the best results in these countries, and called forth the highest praise.

"Not one Belgian physician has yet had the will, the courage, or even the power to introduce it into his asylum; but I am wrong, one of our colleagues has had the boldness to try, and, considering the opposition which his attempt has created and the difficulties which it has encountered, one asks one's self how he has had the energy necessary to persevere in the course which he had undertaken, and in which he had as yet only made some very timid and feeble trials.

"Lastly, the extension and development of the family care system forms the last item in the entirety of the progress effected by modern psychiatry in the treatment of insanity. If any country ought to have esteemed it an honour to uphold this system it should certainly be Belgium, the land that has seen the birth of the colony of Gheel, where the lunatic was already living in liberty at a time when everywhere else there was not even such a thing as an asylum and the prison was the only refuge for madness. Well! sad to say, it has been necessary for strangers to come amongst us into the very country of Gheel and take up the defence of the system of family care, while our own alienists had nothing to offer except indifference, criticism, and even blame. And it is this sad and heart-breaking spectacle which the physicians employed under private initiative have, with painful unanimity, exhibited to the astonished strangers. While the latter are full of admiration and praise for the organisation of our family care system, it remains for our own physicians to make light of its value and contest its advantages. Never has private enterprise seemed to me more incompetent, more partial, and more pitiful.

"It is necessary to read the account of the Congress for the Treatment of the Insane held at Antwerp in 1901 to understand the narrow spirit which prevails in Belgian mental science and the stubborn hostility which the Belgian family care system has met with. That hostility is the work of private initiative. I would not myself dare to give you the explanation of the truly wonderful fact that one of the finest achievements of practical psychiatry has been discredited, almost vilified, in the very land which saw it born and has seen it develop and prosper, the land whence it has gone out as a model for other nations.

"I will allow myself, however, to bring here to your mind the words of one of those who took part in the Congress, who, with a frankness quite scientific though very teutonic, and perhaps too brutal, wrote the lines which follow:—'It is evident that the Clerical Communities fall furiously upon the family system with all their forces, because its extension cannot fail to make them lose some of their patients, and in any case to lessen the admissions into their asylums, and therefore the capital sunk will be much less remunerative. Consequently Father Amédée and one of his principal doctors have strongly opposed the family care system in general, and more particularly its extension to a greater number of patients.'

"This is what private initiative is worth in matters relating to the hospital organisation of the care of the insane. I do not think that I exaggerate when I affirm that with regard to the value of medical treatment in a strict sense it has failed to a great extent.

"Being an enthusiastic supporter of liberty and individuality, it is with reluctance that I give vent to this opinion, and, coming from one opposed to public interference, it brings with it still greater importance. In a speech made on this subject in 1899, on the treatment of epileptics, I still retained my illusions: unhappily, since then experience has dispersed them one by one.

"Thus, in the department given over to the hospital treatment of epileptics, what has private initiative done? Nothing, or next to nothing, for the small asylum for epileptic children, which has been founded during a period of more than ten years, serves only to point out its lamentable failure; and, moreover, the medical organisation of this establishment does not certainly rank so high as that of similar institutions in neighbouring countries. I may then conclude that if in the treatment of the insane private enterprise has perhaps supplied quantity, it has certainly not supplied quality. The medical and scientific organisation of Belgian asylums is very much inferior to that of German, English, Dutch, and

even French asylums, and we are not, unhappily, the only ones who hold this view.

"One of the King's visitors, who has most conscientiously fulfilled his duty of inspection and oversight, is entirely of our opinion. 'I should fail altogether in my duties,' he writes, 'if I abstained from adding that I am firmly convinced that the lunatics confined in the greater number of asylums are neglected in a most deplorable way as regards medical treatment. This service, as it is organised at present, is quite insufficient, not to say completely worthless. The one doctor (his consultant [adjoint] is only an ordinary practitioner), to whom the care of hundreds of lunatics is entrusted, cannot be equal to his task, more especially as outside practice occupies the greater part of his day, and he only gives up his surplus time to the asylum, that is to say, about two hours a day. Also he limits himself to giving his attention to incidental maladies of the inmates without attending to the actual ailment from which they suffer, and still less without attending to the moral *régime*, which is an all important thing in asylums.' The King's visitor ends by saying: 'It is not the first time that I have drawn attention to this state of affairs, which constitutes a real scandal, but always with the same lack of success.' Now, as the perfectness of its medical service ought to be the principal aim of the work of a sanatorium, I am therefore justified in asserting that private enterprise is incapable of securing this end in accordance with the conditions which science demands."

A VISIT TO THE BICÊTRE.

Before spending a short time in Paris in September last I had provided myself with an introduction to M. Bourneville. As I had feared, however, he was on holiday during my stay, and his well-known Saturday demonstrations were in abeyance. Any interest, therefore, attaching to my experiences depends on the fact that, unlike the majority of visitors, I saw the Bicêtre in its everyday condition and without preparation.

Many centuries ago an English prelate built a palace on an eminence of the rolling ground south of Paris, a stone's throw from the modern fortifications. Its traces have long since disappeared, but the name Winchester survives in the corrupted form of Bicêtre, and the Hospice des Aliénés stands on the aforesaid episcopal domain. The tramway of the Rue de Fontainebleau leads to the foot of the hill, and a few minutes' walk brings the visitor to the main gate of the institution, fronting eastwards. Arriving early, I was told that M. Bourneville's deputy would not be there for an hour or more, so that I had leisure to stroll through the quadrangles and note the outdoor life of the asylum.

A great boulevard, paved with large irregular slabs of granite, leads from the east gateway through the three main squares. It is flanked by wide dusty footpaths, worn and uneven, about which are scattered numerous bare wooden benches. Further back are grass-plots, shut off by a low trellis-work, planted with trimmed, flat-topped trees, and bordered by masses of geranium and fuchsia, picturesque, but untidy. The buildings, of dull yellow stone, vary in height, owing to additions, from two to four stories; with their flaking whitewash, blistering paint, and generally unkempt appearance they suggest some huge overgrown provincial inn of Southern France. The greater portion of the asylum, which contains 3000 male beds, is devoted to the aged of more or less sound mind, and corresponds to an English workhouse. The department for imbecile children, of which more anon, is lodged in out-buildings to the south-west.

The morning of my visit was bright, and as the early chill of autumn passed off the inmates began to hobble out and dispose themselves to smoke and doze in the sun. Every variety of human wreck was represented, but the aged were in the majority, young adult imbeciles being few and senile dements in plenty. Many were hemiplegic or paralytic, and provided either with bath-chairs or with a curious form of go-cart, consisting of an oblong wooden frame with four small wheels, and fitted with a seat for the patient's occasional rest. There was no uniformity as regards dress, all descriptions being in evidence from hat to footgear. The commonest consisted of a thick rough jacket, trousers, and peaked cap of French grey, with a collarless shirt of unstarched calico; but every concession had been made to individual prejudice; and

man wore a straw hat with no ribbon, another a thick coat over three waistcoats. As far as I could see, however, clean faces and necks were universal. The general condition, facial expression, and deportment of the inmates differed but little from those seen in our imbecile asylums and workhouses, and suggested indifference and content in about the usual proportions. The paucity of senile ophthalmia cases was noteworthy. The attendants, whose caps bore the letters A. P. (assistance publique), seemed to be kind and considerate. They wear badges of rank on the arm. The children of the married staff were playing about the courts, dogs strolled here and there, and there were two tobacco stores at the inmates' disposal; altogether the social failure of Paris must feel that his surroundings have been made as homelike as possible in the Bicêtre.

M. Bourneville's deputy proved to be a most courteous and considerate gentleman, who spared no pains in showing me the children's department, which was my objective. We passed through the second court, with the chapel on its south side, and, turning to the left in the third, reached the series of modern blocks devoted to imbeciles under eighteen. The circular stone prison, with its deep surrounding ditch, reminiscent of an ancient donjon-keep, at the back of the third court, was in former days the acute hospital, but the supply of attendants was never sufficient for treating this class of case, and after the building had twice been set on fire by patients it was devoted to other uses.

The children's blocks, a series in yellow brick with narrow intervening flower-gardens, accommodate several hundred boys. The first ward we inspected was the infirmary, a somewhat gloomy apartment on the ground floor, bare and comfortless in appearance, with loosely-set wood parquet paving and dingy white curtains. The nursing did not impress me as being up to the highest standard. Passing to a ward for wet and dirty cases, we found the children sitting out on a spacious shaded verandah, each kept by day permanently on a commode chair padded and covered with American cloth. The next department—the cells,—a separate outbuilding fronted by a small gravelled enclosure, consists of a row of seven or eight single rooms, some of them padded. These are used for children with attacks of acute mania, and also for troublesome and unruly ones as a measure of discipline. Each has a closet-seat in one corner, a window high in the wall, and a roof ventilator; the two latter can be worked from the corridor. The isolation block is a cleanly and well-ordered building, in which apparently effective seclusion of contagious cases is managed by means of glass partitions, roof-high.

As it was holiday-time no school work was in progress, but I was shown the main schoolroom, excellently equipped, with a magic-lantern outfit, and many exhibits of the children's manual work. With the gymnasium I was not much impressed, but here again mid-vacation may have been accountable for the state of affairs. The refectories, with veined marble tables, were clean and attractive, and the food appeared to be excellent and well served. I saw the majority of the imbeciles playing in the paved courtyards; they seemed cheerful and contented, but lacked the ruddy cheeks and plumpness typical of Darent children.

Those who are familiar with the Parisian and with his management of hospitals and municipal institutions generally will recognise many national characteristics in the Bicêtre, and could perhaps concoct *a priori* much of the foregoing brief description. I am content to believe that in order to learn the most valuable lessons the asylum has to teach one should visit it when M. Bourneville's educational method is in full working activity.

F.

THE AUXILIARY ASYLUM AT YOUGHAL.

The following appeared in the *British Medical Journal* for October 29th, 1904.

CORK DISTRICT LUNATIC ASYLUM.

"At the last monthly meeting of the Committee of Management the Resident Medical Superintendent again had to report that the monthly admissions were above the average, one being an emigrant from Queenstown. At present there are in the Asylum 1622 and 383 in the Auxiliary at Youghal. The male side has

been relieved by the transfers to Youghal, but it is almost impossible to cope with the increasing numbers on the female side. As regards the superintendence of the Auxiliary Asylum at Youghal, the Rev. Dr. Brown, Bishop of Cloyne, seems determined, if he possibly can, to throw aside all medical superintendence of the Youghal Asylum, though an integral part of the Cork Asylum, and leave the management entirely in the hands of a community of nuns who are to be responsible to the Committee, the chaplain of the Auxiliary Asylum to come to Cork to represent the matron and lay any matters of business and small accounts before the Committee. It may be remembered that some time ago in opposition to the desire of the medical profession in Cork, the Committee appointed a visiting medical man to the Youghal institution, where 383 patients are housed, and now Bishop Brown wishes further to set aside the superintendence of the Resident Medical Superintendent at Cork. In speaking at the meeting his lordship defines the duties of the Cork Medical Superintendent as those of merely admitting or removing patients, and goes on to say 'it was not essential that the manager of a lunatic asylum should be a doctor, but the fact of his being a doctor was no disqualification.' Fortunately the Lord Lieutenant is not of the same opinion as the Bishop, for he states in a letter which accompanied receipt of rules:

"The Resident Medical Superintendent of the Cork District Asylum is charged with the superintendence and regulation of this auxiliary asylum, it being a department of the Cork Asylum, and there is no power to transfer or to impose on any of the officers duties which appertain to the Resident Medical Superintendent, and which he is legally bound to discharge."

"To meet this difficulty the Bishop proposed the following resolution:

"That whereas the Lord-Lieutenant by letter dated March 22nd, 1901, sanctioned the arrangement that the Manager of the Youghal Auxiliary Asylum need not be a medical practitioner, we insist on our right to continue that system (according to the resolution unanimously adopted for this purpose), by which the matron is made responsible for the discipline and domestic management of the Auxiliary Asylum, without supervision from the Superintendent of the Cork District Asylum or other medical officer."

"And to make his resolution doubly sure his lordship proposed a second one:

"That we further request the Lord Lieutenant to alter the rules and regulations of the Committee of the Cork District Lunatic Asylum so as to give effect to the above resolution by introducing the following rule:—That the matron of the Youghal Auxiliary Asylum is to be responsible to the Committee of Management for the discipline and domestic management of the Auxiliary Asylum, and to modify any existing regulation as far as may be necessary."

CHRISTMAS EVE FESTIVITIES.

From our contemporary the *Dublin Daily Express* of December 27th, 1904, we quote the following tit-bit:

"Mr. J. Fitzgerald, solicitor, coroner, held an inquest at Sligo District Lunatic Asylum yesterday morning touching the death of an inmate of that institution named Michael Ward, which took place under peculiar circumstances at a late hour on Saturday night last.

"From the evidence adduced it appeared that the deceased was an ex-school teacher, aged about 60 years, and a native of Doonara, co. Leitrim. He was committed to the asylum as a dangerous lunatic in December, 1890, but owing to his good conduct within recent times he was employed as a "liberty" patient to do messages. On Saturday evening last he went into Sligo, and returned to the institution about 8.30. Night Attendants Cullen and Kelly both saw him when he returned at that time, but neither saw anything unusual in his demeanour. However, about a quarter to twelve that night Attendant Kelly informed Cullen that Ward was lying on the hospital floor, and was dying. Both Kelly and Cullen went into the hospital, but it was alleged that, although they found the deceased as above stated, they did not send for the doctor, who was then in the institution,

until about ten minutes later, nor did they do anything for the deceased. Another keeper named Leddy, however, arrived on the scene, and went for the doctor, and on the arrival of the latter about three minutes later he found Ward lying dead. Dr. Roantree, who afterwards made a post-mortem examination of the body of the deceased, certified that the cause of death was fatty degeneration of the heart, accelerated by acute alcoholic poisoning. Dr. Gilcriest, Acting Resident Medical Superintendent of the institution, after finding life extinct in the body of the deceased, questioned the keepers, with the result that he charged both of them with being drunk while on duty. Kelly admitted having taken three or four bottles of stout that evening, but Cullen denied it.

"Chief Attendant Feeney swore that Cullen's breath smelt of drink, but he had no other appearance of drink on that evening.

"The jury returned a verdict to the effect that the deceased died from alcoholic poisoning, and added a rider that they found the attendance and supervision in the institution bad."

The management of the Sligo Asylum called for some comment from us a few years ago when the Committee were anxious to reinstate in charge of the insane an attendant who had just served a period in jail for an assault on a patient. It is understood that that devoted and heroic public servant, for whom his kindly and appreciative Committee had such sympathy, would have complied with their generous desire and returned to exercise his gentle sway over the patients in the Sligo Asylum, had it not been for the untoward circumstance that he was "wanted" for some other offence by those oppressive guardians of public order, the Royal Irish Constabulary, and found it judicious to retire into private life for a time. That whiskey should get into an Irish asylum at Christmas time does not surprise us, but we must admire the ingenuity of employing a patient, if this were done, as purveyor of drink. Death of an asylum patient by acute alcoholic poisoning is startlingly original—absolutely unique in fact. It quite puts in the shade the mere old-fashioned exploits of beating patients, breaking their ribs, noses, etc. Perhaps it falls under the term so often referred to in modern Irish life—"Killing with Kindness."

MONAGHAN ASYLUM COMMITTEE AND THE MEDICAL SUPERINTENDENT.

According to a very detailed report which appears in the *Anglo-Celt* newspaper of Cavan, under date December 17th, 1904, the proceedings at the monthly meeting of the asylum for the counties of Monaghan and Cavan at Monaghan, held on the 15th December, must have been of that lively, original, and truly Hibernian character which the mere Saxon never can understand. It would appear that General Clifford, one of the Committee, moved the following motion:—"That the Lord Lieutenant be requested to direct that Dr. Taylor be subjected to expert medical examination with a view to ascertaining whether, in the present state of his eyesight, he is capable of performing his duties as Resident Medical Superintendent."

Dr. Taylor is reported to have thereupon requested to be heard through his solicitor. The latter gentleman, not being familiar, as it would seem, with the methods of Irish asylum committees, did not content himself with pointing out that the proposed action of the Committee was *ultra vires* and that the Lord Lieutenant was unlikely to venture on a course which the Czar would be afraid and the Sultan ashamed of, but went on to endeavour to awaken the conscience of the Committee to what he called the "persistent persecution" to which Dr. Taylor has been subjected. He said that the object of the motion was to worry and annoy Dr. Taylor in the hope that he would consequently hand in his resignation and make a vacancy. As might have been expected, this kind of talk merely led to further recrimination, chiefly interesting as showing the methods which the Irish adopt in dealing with public servants. Attempting to justify his resolution by stating that Dr. Taylor's eyesight was too bad to enable that officer to discharge

his duties, General Clifford went on:—"I am perfectly certain from what I have seen that Dr. Taylor cannot take the temperature of a patient no more than he can fly. From my own personal observation it appears that Dr. Taylor is unable to recognise different gentlemen coming into this institution. I say that it is a saving to the ratepayers to have Dr. Taylor in a position to discharge his duties properly, but in my opinion he is physically incapable of discharging these duties. I would move that we have expert opinion as to his eyesight."

"When pigs begin to fly," as they say in Ireland, General Clifford will probably be a good judge of the duties of a medical superintendent, and have some valuable original opinions as to temperature taking. We can quite believe that Dr. Taylor may experience some difficulty in recognising a gentleman among some of those who come into the institution, but surely this cannot be a disqualification for a post connected with the Monaghan and Cavan Asylum.

Mr. Mullen, we are told, moved a negative. He said—"Because Dr. Taylor is doing his duty fearlessly and conscientiously, as he has done up to the present, General Clifford comes forward and demands that someone else should take his place. I move now that we do not receive General Clifford's motion."

The Most Rev. Dr. Owens, Roman Catholic Bishop of Clogher, supported Mr. Mullen. In a very generous and handsome speech, he upheld the character and capacity of the unfortunate doctor against the enemies who were baiting him. Speaking with the intimate personal knowledge which his position gave him, as well as the fact that he lives close to the asylum, has a right of way through its grounds, and has been longer and more closely associated with it than any other member of the Committee, he testified to the excellence of Dr. Taylor's services, and said he thought it would be very hard to get a more capable official. He had one quarrel with Dr. Taylor, and as to that he said—"I reproached him for not taking the proper steps to put an end to the abusive charges that were being made against him and have damages obtained against the gentlemen who made the accusations." He went on to say that he regarded the present motion as libellous, and that if he were the medical superintendent he would take an action against its proposer for £10,000 or so. It would appear to us that the peculiar form which the resolution took was probably slyly arranged to dodge the law of libel, however. Casually the Bishop observed that the matter was before the Committee on a previous occasion and was defeated by a majority.

The scrimmage that followed on the just and kindly remarks of the Bishop would have little interest for our readers. It suffices to note three small items. First, it would appear that the Committee some time ago gave an order that the Medical Superintendent should take his turn with his assistants of visiting the wards at night. Can it be that the poor gentleman suffers from nyctalopia, and that this order was given in order to reveal his weakness? Secondly, it was suggested that the night attendant should be questioned as to Dr. Taylor's visits at nights. It is impossible to read an Irish story without observing how large a figure the spy and informer cuts in the narrative. We can quite imagine his being the leading spirit in an Irish asylum. Thirdly, a strong motive in some for voting against the motion was that an election of Committee is coming on, and that it would be wiser to leave the question of Dr. Taylor's vision to people who knew presumably nothing about it rather than to those who did. Why this notion ruled we are not sufficiently versed in local politics to tell, but the insinuation of some personal reason *pro* or *con* was very plain.

The motion of General Clifford was eventually negated by six votes to five.

THE OPENING OF THE NEW CHAPEL AT JAMES MURRAY'S ROYAL ASYLUM AT PERTH:

The following extracts are from the pages of *Excelsior*:

"An important and impressive ceremony was witnessed at Murray's Royal Asylum on Thursday, September 29th, 1904, when the new chapel was solemnly dedicated, and the new villas adjoining were formally opened. The function was

attended by a large number of the subscribers to the Chapel Fund, including the Directors, Lord Provost and magistrates, clergymen, and friends of the Institution. The ministers, issuing from the robing room preceded by Dr. Urquhart, marched in processional order to the chapel, followed by the Lord Provost and magistrates in their civic robes and chains of office, while the Directors brought up the rear. Mr. F. S. Graves presided at the organ, with an efficient choir. The service was conducted by the Rev. J. W. Henderson, parish minister of Kinnoull and Chaplain of the Institution, the Rev. P. R. Landreth, of the West Parish Church, Perth, acting as moderator. The lessons were read by the Rev. D. W. Kennedy, of the Middle U.F. Church, Perth, and the Very Rev. the Dean of St. Andrews, while Dr. Robertson, Methven, preached a most eloquent and appropriate sermon.

"The service lasted about an hour, and at its conclusion the large company adjourned to the 'Browne Gallery' recreation hall, where a sumptuous repast was served. Lord Mansfield, Chairman of the Institution, presided.

"After luncheon the Chairman called upon Dr. Urquhart, who said he wished to say one word of grateful thanks to the subscribers for establishing and completing the chapel which had now been dedicated. Many were unable to be present, and he had a long list of letters of apology, with which he would not detain them. He would, however, quote from three letters, which were representative of all. Dr. Fraser, Commissioner in Lunacy, said: 'It is most gratifying that so many of your past and present patients have contributed to the cost of erecting the chapel. It is therefore largely a monument of gratitude.' Dr. Murray Lindsay, who acted as physician here during 1862, wrote: 'Nothing would have given me greater pleasure than to see the new chapel and the old place with its associations to me so dear and never to be forgotten. I heartily sympathise with your efforts, and congratulate you on the completion of the chapel, which could not have been accomplished without an enlightened and liberal Board of Directors.' Mr. James Ritchie, C.E., long a valued adviser, and a Director, wrote: "I am sure it must be a great and constant gratification to you, these wonderful improvements on so beneficial an Institution—the extent and value of which only such old stagers as Mr. John Dickson and myself can fully appreciate.' Dr. Urquhart concluded by intimating to the subscribers the gratifying fact that the chapel had been opened practically free of debt.

"After the loyal toasts had been honoured, Lord Mansfield called for the toast of the day.

"Sir James Crichton-Browne, in proposing 'James Murray's Royal Asylum,' contrasted the new chapel with the little rugged, ruined chapel of Strath Fillan there which was so long a shrine for the cure of the mentally deranged, to which those stricken with madness in this district in bygone times were carried after being dipped in—

" 'St. Fillan's blessed well,
Whose spring can frenzied dreams dispel,
And the crazed brain restore.'

"The proceedings closed with Lord Mansfield proposing the health of Dr. Urquhart, which was drunk amidst loud applause."

CORRESPONDENCE.

FEMALE NURSING OF INSANE MEN.

From Dr. GEORGE M. ROBERTSON, Stirling District Asylum, Larbert.

I request permission to record a few observations on the above subject, which are called forth by the disparaging nature of Dr. Urquhart's remarks in a communication in your last issue. I believe it will be admitted first of all by Dr. Urquhart himself that I have claims to be heard.

I believe Dr. Urquhart to be in the wrong in the views he holds of the working of the system of female nursing, yet I do not hope to convince him of his errors. In a matter of this kind, where lifelong habits and prejudices, and even *amour*

propre, are involved, words fail to convince. The system of female nursing of men has now been adopted by the great majority of superintendents in Scotland; it has the strong support of H.M. Commissioners in Lunacy in Scotland; and it has proved in the practice of those who have adopted it an undoubted success. That the system, for good or for evil, has come to stay is not now doubted by any responsible person in Scotland that I know of. Its universal adoption is regarded as a mere matter of time. It obviously must be accorded great merits, from a consideration of these facts alone.

I desire in the first place to express myself regarding the first five paragraphs of Mr. Bloomfield's statement, quoted by Dr. Urquhart. Here is a man who, it is admitted, knows nothing about asylums, and when such as he maintain "that it would be a great mistake to employ women nurses in the male wards of asylums," the opinion expressed is not worth the paper it is printed upon. When this opinion is, in addition, coolly presented to asylum experts for their consideration, it is little short of an insult. I am, however, not more astonished at Mr. Bloomfield's presumption in expressing it than I am at Dr. Urquhart's action in quoting it. Nor is this all, for it is followed by so disgusting and indecent a travesty and caricature of asylum life, that I do not know whether its good taste or its accuracy is the more at fault. With reference to these topics, I state the general principle, and I have positive knowledge of its particular application in the daily work of asylums, that if one desires to improve the tone of men's conversation, and to refine their habits and manners, the best way to effect these objects is by the presence and influence of good women. I also affirm that not the least of the many improvements effected by the presence of women nurses and gentlewomen in the male wards of an asylum is the greater attention to decency and decorum that they have introduced there. Mr. Bloomfield, owing to his ignorance of asylums and of this "so-called reform," requires, in addition, to be informed that there are certain classes of male cases which no one has yet ventured to put under female care. If also there be asylums, and of this I do not deny the possibility, where the male side is not a fit place for a woman to be, then the sooner an attempt is made to make them fit for women's presence the better, for this is a work of reform that can and ought to be done.

Dr. Urquhart states that the system has been pressed upon him and others "on what would seem to be inadequate grounds," and he sets "aside as futile such arguments as have been presented as to the comparative ease with which male patients are fed by female nurses." The argument he refers to is at least two generations old, and was urged in support of the old system of employing one or more women in some of the male hospitals of the large asylums. These women occasionally fed "the abstinent male" and smoothed the masculine pillow, and so far this was satisfactory; but they were less nurses than housemaids, and were more at home in the kitchen and scullery than in the wards with the patients, who continued to be nursed by male attendants. The new system was inaugurated in this country by Dr. Turnbull, of the Fife and Kinross Asylum, in 1896, when he placed a ward of male patients entirely in the charge of female nurses by day, and it was fully developed, when, in January, 1900, in this asylum, male patients were handed over completely to the care of women by night as well as by day. As an argument in favour of the old system, the feeding of "the abstinent male" had some force, as it was the most important piece of nursing women then did, whereas now it is among the least of the many mercies of the new system, and not worthy of being called an argument in favour of it. Dr. Urquhart's particular reference to it indicates, I fear, that he does not realise the features of the new system.

Dr. Urquhart goes on to say that the employment of women on the male side has reduced male attendants "to the position of hired bullies or common labourers. That is what it really means if attendants are not to be entrusted with the care of the sick and acute cases."

Hired bully and common labourer, as terms descriptive of the work done by male attendants, are so far fetched that they may be regarded without injustice as mere epithets of abuse. Even if an attendant be not called upon to nurse the sick and infirm, there surely remains great scope in a well conducted modern asylum for services of a very honourable nature, demanding the highest moral and personal qualities. And truth to tell, bullying and belabouring are practised very

much less on the male side under the *régime* of women than of men, and this for very obvious physical reasons, if for no other.

He states too that these nursing proposals constitute a wrong, because they offer to the male attendant "no hope of advancement in the asylum," and because "the higher posts would be absolutely unattainable." As to this wrong, Dr. Clouston, who is a very accurate observer of human nature, pointed out many years ago that his female nurses all longed to work in the hospital, and his male attendants all wished to be kept out of it, and that he never saw a man enjoy sick nursing in the same way that many women appeared to delight in it. My own personal experience confirms this, for, however conscientiously a man may have nursed sick and bedridden cases, I never heard one express regret if relieved of this duty. If we wrong the prospects of male attendants, it is at least done by means which please them, and which gratify their natural inclinations; but *do* we wrong them? Dr. Urquhart assumes, I imagine, that head attendants' posts are also to be filled up by women; but this is not a necessary consequence of female nursing. As it, however, accords with my own practice—my matron having charge of both male and female sides, like a hospital matron—and to make the case as bad as possible, I shall accept all that his complaint involves. What then constitutes the wrong? It is that none of my male attendants can look forward to being promoted head attendant of this asylum; but by this practice I only injure, for what I consider a worthy object, one man out of hundreds in a generation. Attendants are many, and they come and go; but head attendants are few, and they are a tough race. I believe Dr. Urquhart has had the good fortune to have been served by one head attendant for over a score of years; Dr. Clouston by each of the two head attendants at Morningside for over thirty years. Neither of these superintendents has adopted the system of female nursing, of which Dr. Urquhart complains, and yet their male attendants, in respect of this promotion, have been for twenty or thirty years as badly off as if they had been employing the dreadful system all the time.

Dr. Urquhart also reminds one that the sauce for the gander is the sauce for the goose. If therefore he objects to my closing promotion on the male side by blocking the chief male post, why does he (like myself) bar promotion to asylum nurses by denying them the matron's post? He has had several opportunities of encouraging his own and other asylum nurses in this respect, and yet his heart has not bled for their wrongs, as it has for the imaginary wrongs of my male attendants.

I have also to add, from actual experience, that the chances of promotion elsewhere for the male attendants do not seem to be diminished in those asylums which have adopted this system. Since I adopted it four of my old attendants have been promoted head attendants elsewhere, and this, I believe, is a record that is not surpassed. One of these men, who was appointed to an asylum where female nursing for men had not been practised, was specially selected for the very reason that he had been trained in contact with the new system. In view of future developments, this element of his training was considered most valuable. This is a point which ambitious young attendants with foresight would do well to note, and from it Dr. Urquhart may conclude that wrong may be done to deserving male attendants by omission, by the failure to introduce the system.

I have already trespassed on your space without having said anything of the problem which was the "exciting cause" of Dr. Urquhart's jeremiad, namely, How are male attendants to be trained in sick nursing, so as to qualify for the Certificate for Proficiency in Mental Nursing, if the male hospital wards be staffed with women? It does not involve any question of the proper nursing of the patients in the asylum; it is purely a question of the education of the male attendant. In the past an effort was made to allow every attendant to spend a portion of his period of training in the hospital, but the average amount of time of actual sick nursing experience which each candidate enjoyed was little to boast of, and in an asylum for private patients with a large staff and a small hospital this experience must have been infinitesimal. Under the new conditions I now employ a matron and six assistant matrons (sisters), who are all certified hospital nurses, and if these seven nursing experts, with the privilege of employing all the material for teaching that exists, do not turn out male sick nurses, better trained *on the average* in the practical duties of sick nursing than in the past, I shall be

much disappointed with their work. While the training here will now be better than the average of the past, it is possible that no man will attain to the skill of the few permanent hospital attendants of the past. With regard to male sick nurses in private practice. I consider this a question for hospitals to consider, and it is utterly preposterous that an asylum superintendent should not employ women in his male wards, if he approves of the system, because of visionary doubts about the future supply of male sick nurses. Dr. Urquhart deprecates the universal employment of women in the male sick wards of asylums on this ground, and therefore I quote the following from the *British Journal of Nursing* (Feb. 27th, 1904):

"A reform of far reaching consequences and of national importance is that, for the first time, the orderlies of the nursing section of the Royal Army Medical Corps are to pass through a comprehensive course of instruction and practical work which will enable them to qualify as thoroughly trained nurses. So far, the training in nursing duties given to the nursing orderlies has been insufficient and intermittent; now this is all changed, and they are to have a systematic and comprehensive course of training, both theoretical and practical. Until now, while many male nurses have been employed in this country, no large general hospital has opened its training-school to them, and their experience has been gained in special hospitals. *We must look to the military hospitals in the future to provide the community with efficient male nurses.*"

If the last sentence in the above quotation be true, and coming from such an authority, I see no reason to doubt it, the next piece of good news I expect to hear is that the system of female nursing for sick and infirm men has been introduced into the Murray Asylum.

MALE NURSING IN ASYLUMS.

From Dr. W. A. PARKER, Gartloch Hospital for Mental Diseases.

I have read with great interest Dr. Urquhart's attack on female nursing in the male wards of asylums. I would like to say a few words on the point. I am not concerned about the supply of male nurses outside, but I may say shortly that I am quite satisfied that no asylum nursing staff is efficiently equipped, which does not provide a certain number of male nurses for the bed treatment of men.

Since the opening of this hospital in 1897 the male wards for bed treatment have been staffed entirely by women. The result of this has been that a certain small, very small, but quite definite, proportion of male cases who would have been the better of bed treatment were treated without it in the ordinary wards, or were treated very inconveniently in single rooms opening off the ordinary male wards. I am a strong believer in the general good effect of having female nurses for men, and their presence is certainly comforting, as a rule, to the relatives of the patient, but, undoubtedly, certain cases of mania have an erotic turn given to their thoughts by the presence of women, and this shows itself in masturbation, indecent exposure, etc. I am satisfied also that in some general paralytics and adolescents masturbation is increased where male wards are staffed by women. Certain impulsive epileptics and a few dangerous paranoiacs I have had to remove from female care not because they attacked the nurses, but because the nurses lacked physical power to come between the patient and other patients about whom delusions had been formed. I need not elaborate this, but the need for male nursing has been so evident that I opened this year a small ward staffed by men where all male cases are admitted and passed on to the wards staffed by women as soon as is judged right. In this way I believe I have solved my previous difficulty. I am very deeply impressed by the need for some beds staffed by men for the bed treatment of men in a mental hospital as I know how narrow on several occasions was the margin by which we here escaped from serious accident due to the impulsive outbreaks of powerful men.

FEMALE NURSING AMONGST THE MALE INSANE.

BY AN ASYLUM MATRON.

This much-to-be-desired reform is not, I fear, making much progress.

The cause of this delay may be, perhaps, the immense difficulty in organising the movement. I do not think it would be either desirable or possible that women should supplant male nurses, but, as a help to them, I think they would prove a great advantage. May I suggest what I think would be a possible way in which the scheme might be successfully carried out? I would place amongst the male attendants—say, in a division where there might be thirty or forty patients—two women. These women must be most carefully selected, as on this selection the whole success of the trial depends. One of these women to act as a sort of head nurse, the other her assistant.

Their social standing should be such that they could command both obedience and respect from the attendants. They should be musical, bright, and fond of games, with sufficient initiative and tact to induce the male attendants on all occasions to join in these amusements. This would greatly add to the general sociability and good comradeship. They should carve, preside, and help at all meals, see to the comfort of all, particularly the feeble and ailing, look after the bed-linen and underclothing, see that the sitting-rooms are kept bright, cheerful, and nicely decorated. They should also see that the patients are kept trim and neat (this is always a little attention which male patients willingly accept at the hands of a woman).

I feel sure that this plan, if properly carried out, will prove a decided reform. It will lessen the monotony, and brighten the sad lives of many poor patients, and I feel sure it will prove a not unimportant factor in aiding their recovery. Furthermore, their presence will have the best possible influence on the conduct and demeanour of the male attendants, and would cause all petty abuse of small authority to disappear completely.

These women need not have the least fear of working amongst the male patients and attendants. I myself did so for some years, and invariably found the conduct of the patients most satisfactory, and that of the attendants civil and obliging. The latter, indeed, always showed themselves pleased and anxious to help in any little kindness and attention offered to their patients.

Obviously, these women must be thoroughly backed up by the doctors.

To the Editors of the 'Journal of Mental Science.'

GENTLEMEN,—Although at a loss to know what really actuated you when you wrote the editorial which appeared in the last number of the JOURNAL on "The Management of the London County Asylums and the Horton Asylum Scandals," yet I feel that, unless your statements are corrected, a grave injustice already done will be perpetuated. This must be my apology in venturing to ask you to give this letter the same publicity as the editorial I complain of.

It is not my purpose to make much objection to your comments on the Horton affair further than to say that the trial chiefly demonstrated criminal tendencies on the part of certain officials. Anyone conversant with the management of the London County Asylums must have noticed with regret, even with anger, that certain statements so gross and so improbable, and further, statements regarding the duties and responsibilities of certain officials so horribly untrue, were allowed to remain uncontradicted. The fact, however regrettable, remains that certain officials, taking the golden opportunity of the hurry, confusion, and staff inexperience afforded by the necessarily rapid opening of a large institution, for a time successfully carried on a nefarious business, and were eventually caught and punished. In an older institution such doings would have been either impossible or, if they occurred, would have been quickly detected before they had assumed alarming proportions. Regarding the judge's extraordinary deliverance, the statement he is reported to have made that "it might be possible that the whole management of the asylum was criminal from top to bottom" renders, for

reasons obvious, the rest of his remarks valueless. To leave this subject, I pass to the more serious statements regarding the management of the London County Asylums.

It seems to me to be quite apparent that the management of a vast institution like a London County Asylum must be on somewhat different lines to those of their smaller provincial sisters. Yet the difference is not so great as you apparently imagine—a fact which I, personally, think is to be regretted.

Treated historically, the evolution of the London County Asylum management has been a gradual transfer of power and authority from the hands of lay officers to those of the medical superintendent. Year by year this process has been going on until the latter has become paramount, subject to the sub-committee only, and all officers are under his general control and direction. This is still more clearly emphasised in the new rules issued this year. The so-called independent, or practically independent, officer has been abolished, and his duties have largely been merged with those of the medical superintendent. It is true that there are certain additional officials, but more of them anon. The parts of your editorial dealing with this aspect of the question are astonishing in their inaccuracy. One would think that you were commenting on the London asylums of twenty years ago, and not the modern up-to-date institutions.

A striking paragraph is the one regarding the booking of the medical superintendent in and out of the building. A more childish matter could not have been brought forward, yet in all seriousness it is given as an example of the red tape *ad infinitum* which trammels "men of high repute and untarnished honour."

The committee are, by law, pre-eminent in an asylum, and surely no rules can be objected to that secure this. It is impossible to run large institutions without fixed rules and regulations. The interests at stake are too large. Discretion, judgment, and experience the medical superintendent must have if he is to carry out the rules of the committee successfully, many of which are made at his own suggestion, and further, he is always in a position to draw the committee's attention to any objectionable or unwise regulation. The idea that he is powerless to supervise all departments is preposterous; he has the power, and, to my certain knowledge, can use it most effectually. His ideals and influence should pervade the whole institution. Nothing of any importance should happen without his knowledge, and, if the contrary occurs, then there is some error in his administration which calls for instant reform at his hands.

The paragraph dealing with the relationship between the medical superintendent and the junior staff is a good example of the far-fetched and laboured character of your criticisms. Attendants, nurses, and others are selected and engaged by the medical superintendent subject to a period of probation, during which time he has ample opportunity of judging of their fitness for their posts. At any time during this period, or at the end of it, he can quickly dispense with their services if they are definitely unsatisfactory. If he has any doubts at all on the matter, there is no difficulty in prolonging the period of probation. As a rule, committees wish to hear nothing of probationers until the medical superintendent is quite satisfied that they are in every way fitted for their posts.

On page 755 is a rather marvellous statement regarding the difficulties which may arise in administration owing to the so-called powerlessness of the medical superintendent. I may state at once that the occurrences, as far as my knowledge and experience go, are purely imaginary. There is nothing in the rules to prevent the harmonious working of all subordinate officials. No rules, however wisely written, can make quarrelsome, fractious, and otherwise unsuitable officers pull together. Should these conditions arise, the duty of the medical superintendent is plain, and he has full power to deal with the situation satisfactorily.

A few words now regarding that much abused institution, the central office and its personnel. In spite of the merely bare mention of the clerk to the asylums committee in the Lunacy Act, he and his office are absolutely necessary. This cannot be denied, especially when one committee has under its control so many large asylums. A brief glance at the annual report ought to satisfy anyone of this. The clerk has important duties to perform, but these do not clash with those of the medical superintendent, nor does he personally interfere with the internal administration of the asylums, except broadly when advising the asylums' committee. It is natural to all men and all offices to seek power and influence.

The central office soon recognises strength and efficiency on the part of any medical superintendent, and treats him accordingly. Small blame to it if it takes advantage of any weakness, indecision, or incapacity. The committee is the tribunal, and if the medical superintendent cannot hold his own there, he has only himself to blame. A good superintendent is readily recognised by his committee, and, having their confidence, he is as powerful as any superintendent in the country. The committee give him power and authority; if he lets it slip out of his hands it is clearly his own fault.

Regarding other central officers, it is ridiculous to suppose that the medical superintendent is an expert engineer, etc. The undertakings in the London asylums are too vast, too technical, for the responsibility of advising the committee to be left entirely in the hands of the medical superintendent. The committee, therefore, have been driven to appoint experts to advise them on certain matters, officers who visit the asylums and who are responsible for the more technical work of their various departments. The duties of the expert, say the asylum's engineer, do not clash with those of the medical superintendent. His work is always open to the criticism and revision of the medical superintendent before committee. Nor does it lessen the very definite responsibility of the medical superintendent has, regarding the lighting, warming, ventilation, and general repair of the institution. The same applies to all departments, the high efficiency of which the medical superintendent, by report, inspection, and general direction, has to secure in order to maintain that harmonious co-operation so essential to the good order and general economy of the asylum over which he presides.

A more painful suggestion has never been made regarding the regulations of the London Asylums than that they are framed for the aggrandisement of the committee rather than for the treatment of the patients. On the contrary, they breathe everywhere the care, well-being, and happiness of the patient, and also secure fairness and justice as regards the treatment of the staff, especially the poorer and humbler members, whose claims to consideration are so often neglected.

The rest of the editorial, however well meant, I am afraid I can only characterise as abuse pure and simple. A compliment regarding the liberality and good intentions of the London Council is considerably sandwiched in between references to millions of bricks, miles of corridors, an approaching inferno, and the Colney Hatch holocaust.

It is a great pity that, contrary to its usual practice, the JOURNAL did not take the trouble to ascertain facts before committing itself to views as inaccurate and unfair, as they are misleading and offensive to not a small number of loyal supporters of the Association, medical and otherwise.

Yours obediently,
"MEDICAL OFFICER."

Editorial remark.—Our correspondent very naïvely admits the necessity of our article when he regrets that certain "statements regarding the duties and responsibilities of certain officials" "remain uncontradicted" many months after the events.

Later on he admits that if the Medical Superintendent "cannot hold his own against the central authority" before the tribunal of the Committee "he has only himself to blame." Here is testimony, the more valuable because so obviously unintentional, of the strife between the Central Executive and the Medical Executive; a strife in which it is obvious that all the conditions are in favour of the central officials who are so much more closely and frequently in contact with the supreme authority.

In such a fight for the executive authority we are assured few men could blame the heavy-burthened medical superintendent for being worsted, but blame is due to the predominant legislative authority for arranging such a continuous *internecine* struggle as our correspondent depicts.

Medical Officer is at a loss to know what really actuated us in writing our Editorial; we cannot profess to be in the same state in regard to his letter.

Our readers may be interested in reading editorials on this subject in recent numbers of the *Lancet* and *British Medical Journal*.

OBITUARY.

THE REV. HENRY HAWKINS.

The death of the Rev. Henry Hawkins removes from our midst a personality long known and endeared to many of the older members of this Association.

Mr. Hawkins retired quite recently from the chaplaincy of the Colney Hatch Asylum, after holding that post for nearly thirty-three years.

He is best known by the fact of his being the founder of the After-Care Association, on the Council of which he has been an assiduous worker up till the last few months. Mr. Hawkins also founded a Guild of the Friends of the Insane, which has long done good work in connection with the inmates of Colney Hatch.

The pages of this JOURNAL also contain many communications from his pen on the duties of asylum workers, after-care, and cognate subjects, all written with a practical good sense, and conceived in the truest spirit of Christian charity.

His kindness of heart, gentleness of manner, persistency in charity, and untiring devotion to duty won him much gratitude among the poor and the esteem of many friends, by whom he will be lamented.

Few, if any, asylum chaplains have exceeded Mr. Hawkins in his high ideal of his functions, or in the patient self-abnegation which he brought to their discharge.

Since his retirement there had been a gradual failure in his general health and activity. He died on the 16th of December at his residence, 23, Parkhurst Road, New Southgate, in the seventy-ninth year of his age.

ADDITIONS TO THE LIBRARY.

Purchased.

- Hack Tuke's Dictionary of Psychological Medicine.
 Allbutt's System of Medicine. Vol. viii (Mental Diseases). 1899.
 Campbell Clark's Mental Diseases.
 Kellog's Text-book of Mental Diseases. 1897.
 Berkeley's Mental Diseases.

Presented by the Authors.

- MERCIER (Charles).—Text-book of Insanity. 1902.
 " " Lunacy Law for Medical Men. 1894.
 " " Psychology, Normal and Morbid. 1901.
 MACPHERSON (Dr.).—Mental Affections. 1899.
 CLOUSTON (Dr.).—Mental Diseases. 1904.
 WARNER (Dr. F.).—Study of Children. 1904.
 " " Nervous System of the Child. 1900.
 SHUTTLEWORTH (G. E.).—Mentally Deficient Children. 1900.
 BEACH (Fletcher).—Mentally Feeble Children. 1895.
 PITT LEWIS and PERCY SMITH.—The Insane and the Law.

A subscription has been opened with Lewis's Medical Library.

NOTICES BY THE REGISTRAR.

LIST OF SUCCESSFUL CANDIDATES AT THE NOVEMBER EXAMINATION, 1904.

Valkenberg, South Africa.—Males: George W. Clubb, John Thomas Howan, George Stopford. Females: Elizabeth Stuart, Katherine Annette Steel.

Grahamstown, South Africa.—Males: David Stark, Samuel Borrowes Lloyd, William James Bruce.

Chester County.—Males: Henry Pritchard, William Fernyhough, William Henry Dascombe, William Hinds, Thomas John Pritchard, James Austin,

Albert Georgc Roberts. Females: Elizabeth Jones, Edith Matthews, Barbara Ramsay, Winifred Lacey, Sarah Ann Hughes, Alice Bunting.

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Middlesex County.—Male: Robert James Robinson.

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Stafford County, Cheddleton.—Females: Adelaide F. Roff, Frances Lucy Bryant, Ellen Augusta Strain.

Warwick County.—Male: Thomas Green. Females: Lois Smith, Grace Hardwick, Beatrice C. Carrington, Gertrude Simpson, Mary J. Wilson, Ellen Mitchell, Lily Drew.

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Birmingham City, Rubery Hill.—Males: Albert George Wileman, George Murray. Female: Gertrude Jane Maskell.

Caterham.—Males: George Wood, Robert McElrea, George T. H. Lammas, George Simmons. Females: Norris Grist, Emily May Crowsley, Mary Agnes Ryan, Caroline F. Crowsley, Kate Fanny King, Cassie Maguire.

Plymouth Borough.—Females: Emily Baker, Amelia Baker, Emily Miller.

Portsmouth Borough.—Males: Thomas William Triggs, John Tims, Edward Tobin, Edwin Bell, Archibald Dominey.

Camberwell House.—Male: Willmot France.

Coton Hill, Stafford.—Males: George Edwards, Charles William Elsmore, Arthur Cox. Female: Lilian Jeffery.

Holloway Sanatorium.—Females: Annie Bell Green, Mary Dodd.

Moorcroft House.—Male: Rowland Brewer.

Redlands, Tonbridge.—Female: Florence Mary Owen.

The Retreat, York.—Females: Ettie Burt, Mabel Large, Roberta Herkes, Beatrice Pearse, Agnes Annie Quinn, Mary Toy, Lavinia G. Wilson.

Crichton Royal.—Male: William Graham. Females: Jessie Anderson Thomson, Nellie R. Rae, Isabel Hueston, Mary E. Whyte, Annie E. Crawford, Nella Mackay Munro, Elizabeth Morrison.

Argyle and Bute.—Females: Margret Hannah, Margaret Macfarlane.

Edinburgh Royal.—Male: George Inglis.

Gartloch.—Females: Annie Macdonald, Delia Murphy.

Haddington District.—Females: Jessie A. N. Beech, Lachlan McDonald.

Bangour.—Female: Maude Howe Volume.

Inverness District.—Females: Martha Walker, Annie Kelly Shirley.

Morningside.—Females: Jessie C. Robertson, Matilda M. Baxter, Florence Beveridge.

Perth District.—Female: Annie T. Harley.

Ricartsbar.—Female: Annie Cran.

Roxburgh District.—Females: Janet Scott, Jessie Douglas.

Down District.—Females: Margaret J. Kelly, Minnie McGoran, Alice McGrattan, Frances M. Price.

Londonderry.—Females: Margaret A. Cunningham, Rose A. Gormley.

Bloomfield House.—Female: Lily Jones.

St. Edmundsbury.—Female: Minnie King.

Palmeston House.—Female: Celia Traynor.

NOTICES OF MEETINGS.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

General Meeting.—The next meeting will be held, by the courtesy of Dr. J. Tregelles Hingston, at the North Riding Asylum, Clifton, York, on February 23rd, 1905.

South-Eastern Division.—The Spring Meeting will be held, by the courtesy of Dr. D. G. Thomson, at the Norfolk County Asylum on April 27th, 1905.

South-Western Division.—The Spring Meeting will be held, by the courtesy of Dr. Macdonald, at the Dorset County Asylum, Dorchester, on April 11th, 1905.

Northern and Midland Division.—The Spring Meeting will be held, by the courtesy of Dr. Bedford Pierce, at The Retreat, York, on May 4th, 1905.

Scottish Division.—The Spring Meeting will be held, by the courtesy of Dr. Urquhart, at the Murray Royal Asylum, Perth, on March 26th, 1905.

Irish Division.—The Spring Meeting will be held, by the courtesy of Dr. Rainsford, at Palmerston House, Chapilzod, Co. Dublin, on May 9th, 1905.

 ASYLUM APPOINTMENTS.

Cross, Harold R., L.S.A., Assistant Medical Officer, Storthes Hall Asylum, Kirkburton, near Huddersfield.

Jones, W. Ernest, M.R.C.S., L.R.C.P., Inspector-General of Asylums for the Insane in Victoria, Australia.

Thompson, J., M.B., Ch.B.Aberd., Assistant Medical Officer, Earlswood Asylum, Redhill.

Steen, R. H., M.D.Lond., Medical Superintendent of the City of London Asylum, Stone.

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Part I.—Original Articles.

Morison Lectures.—*Lecture IV.*⁽¹⁾ By JOHN MACPHERSON,
M.D., F.R.C.P.E.

*Variation in Relation to the Origin of Insanity and the Allied
Neuroses.*

IN the two previous lectures ⁽²⁾ of this course the subject of "Variation in its Relation to the Origin of Physical Malformations, of Congenital Mental Defect, and of the Neuroses, such as Epilepsy, Hysteria, and Alcoholism," was considered. The correlation between congenital malformation and congenital mental defect was pointed out. The relation of the neuroses to one another, their heredity, and their distribution throughout mankind of all races, was insisted on. It was also shown that all these affections are genetic in origin and independent of so-called causes or influences due to the environment. For the environment is not, and cannot be, constant while the manifestations in question are, so far as we know, universal. It was further shown that congenital malformation and congenital mental defect are due to inherent processes, the nature of which is at present unknown, acting within the fertilised ovum. It is, moreover, certain that these processes must be independent of the environment of the elements contributed by either parent, of the immediate state of health of the parents or, with certain exceptions such as injuries or special disease, of the uterine environment. It is not asserted that diseases affecting the

mother or even, on rare occasions, specific affections of the father may not deleteriously influence the growing embryo *in utero*. The fact remains, however, that in the majority of instances these defects are hereditary, that they may pass over several members of the same family, and in the case of animals over several members of the same litter—nay, even that they pass over one or more generations to re-appear in a succeeding one. In face of such facts, it is useless to speculate upon physical causes while the great innate cause remains obscure.

When dealing with mental defect, epilepsy, and hysteria, we had to do with comparatively simple variations. Insanity, on the other hand, is a complex of several different diseases which have only this in common—that they have, as their result or accompaniment, a more or less grave disturbance of the manifestation of normal mental processes. It requires very little consideration to understand that, in such a complicated congeries of functioning inter-dependent parts as the human body, the proper functioning of the nervous system must be liable to disturbance from a variety of causes outside itself. There are several great clinical groups into which, for the present purpose, insanity may be divided. The following table will set them forth at a glance :

TABLE I.

Clinical Forms of Insanity.

- I. Mental defect.
- II. Confusional (toxic) insanity :
 - (1) The delirium of fevers.
 - (2) Alcoholism, etc.
 - (3) Puerperal insanities.
 - (4) Dementia præcox.
 - (5) General paralysis.
- III. The recurrent insanities :
 - (1) Mania-melancholia.
 - (2) The neuroses.
 - (3) Obsessions and impulses.
 - (4) Paranoia.
- IV. Dementia (organic and secondary).
- V. Pre-senile and senile forms of insanity.

A clinical classification of insanity is, in the present state of our knowledge, the only possible one, for pathology is not yet

sufficiently advanced to afford a basis of division ; nor is there any hope that in the immediate future our knowledge of the minute anatomy of the nervous system will be so intimate as to form the basis of a classification. Etiological and symptomatological factors form a still less satisfactory means of division. It would be as reasonable to suggest a classification of diseases of the chest based upon the manner in which people catch cold, or upon the character of the cough, as a division of the forms of insanity based upon its causes or upon the variety or intensity of the mental symptoms. There remains the sound and practical method which has all along met with so much success in general medicine—the grouping of related facts in juxtaposition so as to render possible a comprehensive and co-ordinated conception of disease. By adopting this method we are enabled to grasp at once the family and personal history of the patient as well as the symptoms, and to apply to these all we know of the etiology, the pathology, the course, the duration, and the prognosis of the disease.

Confusional insanity.—The type of confusional insanity is the delirium of fevers. It is unnecessary to describe delirium at length, for it is known to all medical men and to the majority of the lay public. Briefly, delirium is characterised by illusions and hallucinations of the senses, by confusion and hurry of thought, by incoherent speech, by fragmentary delusions, and by physical restlessness. Whatever the cause of the delirium, at whatever age it occurs, or whatever its form, there is always present a combination of the symptoms mentioned. It is true that in some of the deliria secondary features or different combinations of the same features are present. It is by a familiarity with these altered combinations of the same features that we are able to distinguish one delirium from another according to their causation. Thus, we can tell without much difficulty acute alcoholism from the delirium of, say, enteric fever, and that of the latter from smallpox. But in all deliria, of whatever origin, the main features mentioned are always present. It should be emphasised that in delirium there is no constant emotional affection. If that fact were more rigorously kept in mind, embarrassing errors in diagnosis would be fewer, and the classification of insanity would be simpler than it is.

There are two kinds of delirium—febrile and sub-febrile. The febrile is that which accompanies various acute infectious

diseases such as the exanthemata and such visceral affections as pneumonia. The sub-febrile occurs as a sequela to many fevers, as a result of various intoxications, after trauma and shocks, and as a consequence of exhaustion.

Confusional insanity is divided symptomatically into three kinds: (1) delirium, (2) confusion, and (3) stupor.

(1) Delirium, as we have already seen, is a result of acute toxic infection accompanied by pyrexia or fever. It occurs during the course of the exanthemata, in certain forms of puerperal fevers, and also, but less frequently, in various toxic infections of the system in which fever and profound toxæmia are present. The mental symptoms in all such cases are identical with the delirium of fevers in general, but vary somewhat according to the nature of the infection. It seems almost unnecessary to add that the symptoms vary in each individual, some persons scarcely manifesting any mental aberration no matter (within limits) how much the system is poisoned, while others become delirious on apparently trivial occasions. It is interesting in this connection to note the extreme liability of children to delirium. That fact, along with the fact that the liability varies so greatly among adults, teaches us the lesson of the inherent variation which exists among individuals. For if children differ from adults in this respect, one legitimate deduction must be that their cerebral organisation is less resistive and less stable. The few words which have already been said serve as a description of what I mean by delirium—the first division of confusional insanity.

(2) Confusion is the second form of this group of insanities. It is a sub-febrile delirium. The peculiar type of insanity which follows as a late symptom after the subsidence of the acute symptoms of typhoid fever must be familiar to most medical men who have had many cases of that troublesome disease to treat. The symptoms resemble in every particular those of delirium save that they are less acute and that they are much more prolonged; they might be described as a chronic manifestation of delirium. There are illusions and hallucinations of the senses, marked confusion of thought, incoherence of speech, but no constant emotional state. There may be mental exaltation of a kind; often there is mental depression, more often still a mixture of both. Besides typhoid fever other diseases may be followed by mental confusion. Thus

we find it succeeding influenza, erysipelas, phthisis, and acute rheumatism. It also frequently occurs in susceptible subjects, as a result of prolonged exhaustion, after shock, especially surgical shock, after accidents of a severe kind, and, finally, after prolonged strain, physical or mental. But we must never lose sight of the great fact that it only succeeds such causative factors as have been mentioned in highly predisposed and neuropathic subjects. Alcohol is one of the prolific causes of a large group of confusional insanities. There are three recognised forms due to alcohol, *viz.* (1) acute alcoholism (delirium tremens); (2) a more chronic confusional insanity, often attended with stupor and similar to the mental affection which follows fevers; (3) alcoholic dementia, with or without systematised delusions of a distinctive type, and with or without paresis. In all forms of alcoholic insanity there is confusion, or, in other words, chronic delirium. These are the only forms of insanity in which alcohol exercises a distinct influence and in which it modifies the clinical symptoms. It is therefore highly important that there should be no dubiety in their diagnosis.

The insanities connected with pregnancy and child-bearing are wholly confusional. The term "puerperal mania" is a misnomer. It may be that a pure mania may coincide with any stage of the puerperium, but in that event the term "puerperal" is better avoided if clearness of description is to be preserved.

Dementia præcox affects young persons of a neurotic disposition almost without exception. This is Clouston's adolescent insanity. According to Kraepelin heredity has been ascertained to be present in 70 *per cent.* of all the cases. Over 60 *per cent.* of the cases are under twenty-five years of age; the great majority are under twenty years. Many of the subjects are intellectually bright, some of them even exceptionally brilliant; others, about 7 *per cent.* of the whole, are undoubtedly weak-minded. This is not to be wondered at, for the neurotic disposition is not limited to any intellectual grade, but is found in association with every variation in intelligence. Dementia præcox, which is a slow progressive disease, is a chronic confusional insanity produced by two factors, *viz.* a predisposing cerebral weakness and a physical intoxication. About 10 *per cent.* of the cases occur immediately after acute infection such as the exanthemata. The physical auto-intoxication of the majority of the cases is indicated by the type of

the insanity, which is confusion, and by the destruction of the brain-cells in the cerebral cortex. It is this pathological effect of the poison which renders the prognosis so grave. Only about 8 *per cent.* of the cases make a good recovery.

Dementia præcox manifests its symptoms under three forms, *viz.* (a) hebephrenia, (b) katatonia, and (c) dementia paranoides.

(a) The word "hebephrenia" means "the mind of puberty." The term implies a confusional insanity, misnamed dementia, with elements of depression and exaltation, the latter being ill defined.

(b) Katatonia, or rigidity of the muscles, is characterised by confusion, with depression and exaltation, the latter being the better defined, and by various motor phenomena, such as catalepsy, convulsive states, automatism, and stupor.

(c) Dementia paranoides means the presence of chronic systematised delusion. The paranoiac form of dementia præcox is characterised by confusion, owing to which the delusions are necessarily indistinct, often extravagant and changeable. They bear, therefore, no true analogy to the delusions in chronic systematised insanity, which will be referred to later on. Stupor occurs with frequency in all forms of dementia præcox. The elements of confusion and stupor and the pathological changes in the cortex leave no doubt as to the relationship of dementia præcox to the great group of the confusional insanities.

(3) The third form which is included in the group of confusional insanity is stupor. Every case of this insanity is liable to lapse into stupor, which is a common phase of the malady. There is no stupor in the sense in which I am now using the word which is not connected with mental confusion. The term "melancholic" stupor is misleading because it is founded upon a misconception of the relationship of melancholia. Stupor follows the confusion of alcoholism, of post-febrile states, of shock and exhaustion, but more especially of that very grave mental affection of puberty and early adolescence which, whether we like the name or not, we must henceforth know as dementia præcox. After infection, poisoning, profound exhaustion, or some other debilitating cause a patient begins to show symptoms of mental depression or hebetude. This stage may last for days or for weeks. The depression may alternate with exaltation followed by mental confusion, hallucinations, excitement, and loss of the sense of orientation.

Gradually mental obtusion sets in, which soon becomes so profound that the patient lies motionless, oblivious to his surroundings and to everything else besides.

From what has been said we see that delirium, confusion, and stupor are intimately connected with one another; that they merge into one another; that they are parts of one great clinical group which we know as confusional insanity; and, finally, that this group is a distinct group characterised by the mental symptoms which have been cursorily mentioned and caused by definite, generally well-known, factors, *viz.*, poisoning of the nervous system and exhaustion of various kinds.

It is necessary before passing from this group of diseases that I should say a few words on that important disease "general paralysis." However important it may be from a medical or social point of view, it is only important here in so far as it illustrates my subject. I shall therefore content myself by saying that general paralysis is only accidentally an insanity. As a rule organic diseases of the nervous system are not attended by mental disturbances. But this disease is an exception in so far as it attacks the cerebral cortex, which is the seat of the manifestation of conscious mind. It differs from ordinary forms of confusional insanity, which we have been considering in respect that its localisation of attack is limited and defined to certain parts of the brain cortex and in the degree and severity of its virulence. The delicate nerve-cells of the cortex are rapidly and extensively destroyed. The poison is so virulent that it profoundly and visibly affects almost every tissue in the body. Such a disease must necessarily have distinctive symptoms, and must differ in its clinical symptoms from other forms of toxic insanity. Its great cause is now believed to be syphilis, but it is not a syphilitic disease. It is theoretically held that the devitalising effects of the syphilitic poison upon the immunity of the body tissues result in a lowering of the vitality of these tissues, so that they are rendered incapable of resisting the invasion of bacteria or toxins which, in ordinary health, are innocuous, but which in disease take on a pathogenic *role*. General paralysis is a confusional insanity. Its toxic origin and pathological anatomy leave no doubt as to that, while the majority of the mental symptoms are of the confusional type.

To sum up—the confusional insanities are due to the action

of poison on the nervous system, especially the brain. Their type is delirium, no matter whether the delirium is acute and of short duration, or chronic and prolonged. They all result in an injury to the delicate structure of the brain cortex. That injury is more or less severe according to the nature of the poison, and according to the resistance which the brain-cells offer to the action of the toxine.

If it is asked "How do we know that there is a poison present in the blood of patients suffering from confusional insanity?" I reply that had we no other proof than the symptoms, the pathological results, and the course of the disease, there could scarcely remain a doubt as to its existence. We are indebted to Dr. Lewis Bruce of the Murthly Asylum for direct proof of the presence of a toxine which in all probability is the direct cause of the symptoms of this group of affections. There are two main diagnostic symptoms of infection of the system by toxines, *viz.*, pyrexia of fever and leucocytosis. In some intoxications both are present, in others, *e.g.*, phthisis and typhoid fever, there is pyrexia but no leucocytosis. In others there is leucocytosis, but no marked pyrexia. To this latter group belong the confusional insanities which I have named sub-febrile. Dr. Bruce's description is so important that I have asked and received his permission to quote some extracts from his published writings. It should be explained that in normal persons the number of leucocytes per c.mm. of blood is from 6000 to 10,000—they should not exceed 12,000. "Early in the disease and coinciding with the hyperleucocytosis (which was found on admission to be from 15,000 to 17,000), the percentage of polymorphonuclear cells was frequently above 70. [Let me explain that an increase in the number of polymorphonuclear cells is considered a certain sign of toxæmia.] Later in the disease, during relapses, it is quite common to get a hyperleucocytosis of 20,000 or 30,000 with a polymorphonuclear percentage of 80 or even higher. A relapse generally is preceded by a fall of the leucocytosis of 10,000 or 13,000 with a low polymorphonuclear percentage. As the excitement increases the leucocytes gradually rise, and the percentage of polymorphonuclear cells also rises until the attack reaches its height. When such a case recovers, the leucocytosis remains high." . . . "A notable feature of all these diseases is the fact that upon recovery taking place a hyperleucocytosis is

present for months and even years after leaving the asylum. In cases which do not recover but become chronic the leucocytosis falls, and the percentage of polymorphonuclear cells is often below 50." (8) This is a startling fact, the importance of which is far-reaching. The object of a hyperleucocytosis is of course protective. The leucocytes increase in the blood for the purpose of protecting the system from the encroachments of the poison. Their rôle is always protective. The intoxication of the system does not cease when a patient has recovered from the mental disturbances manifested by the continued leucocytosis. When, however, the poison has done its worst, down come the leucocytes. The struggle is over ; victory remains with the forces of destruction.

Similar changes in the leucocytes and other blood-constituents indicating indubitably a greater or less intoxication have been shown by Dr. Bruce to exist in general paralysis, hebephrenia, and even in alcoholism. This confirms Klippel's contention(4), who long ago held that the toxine in alcoholism was a secondary one, and that alcohol only predisposed the system to invasion by other poisons from the alimentary canal.

[Lantern slides of brain cortex indicating the destructive nature of these toxins upon the nerve-cells and the brain-structure in confusional insanity were shown.]

Recurrent insanity.—A sharp clinical line separates the confusional group of insanities from the group which for purposes of distinction I have termed "recurrent insanities." The recurrent insanities are degenerative in origin ; that is to say, they occur in persons in whom the presence of an inherited neuropathic constitution has been variously estimated by competent observers at from 70 to 90 *per cent.* The hereditary tendency of the subjects is therefore very high—higher than in any other group of mental affections that we know of. Like the general neuroses (epilepsy, hysteria, etc.), their origin is obscure, and they occur without any apparent external cause. They manifest the inexplicable and uncontrollable periodicity of the functional neuroses. They occur in the great majority of cases for the first time in early adult life. Once they occur they have a tendency to recur, in some cases with unflinching regularity, in others with less apparent regularity, but in all cases there is the inherent liability to relapse. In marked contradistinction to the toxic insanities emotional disturbance is the dominant mental symptom.

We owe to the recent writings of Kraepelin a deep debt of gratitude for having pointed out to us the astonishingly simple fact that mania, melancholia, and circular insanity are not separate entities but different manifestations in the periodic recurrence of one syndrome, which he names "manisch-depressive irresein." We have, unfortunately, no corresponding simple English synonym. We must be content for the present to speak of the entity as "mania-melancholia." Mania and melancholia present the same prodromal symptoms; they run a course of gradual increase, maximum intensity, and final subsidence, and they both tend in the individual attacks towards recovery. Their dominant features are the profound emotional disturbance, the recurrence of the attacks, and the alternate presence of the opposite phases of mental exaltation and mental depression in the same individual. Finally, in this group there is no confusion, no obscuration of intellect, and no tendency to stupor. Until quite recently we were in complete ignorance as to the pathology of the recurrent insanities and of the neuroses. We are again indebted to Dr. Bruce for throwing a ray of suggestive light upon the whole subject. His statements are so important that I find it necessary to quote him in his own words: "All the cases of folie circulaire which we have so far been able to examine exhibited depression or excitement of the simple melancholia or simple mania type. During the depressed stage we invariably found a high leucocytosis, with a polymorphonuclear percentage between 60 and 70. If a period of apparent sanity followed the depression, the leucocytosis still remained high, but the polymorphonuclear fell to about 60. When excitement set in it first fell to 10,000, 11,000, or 12,000, and the percentage of polymorphonuclear cells was also low, generally about 50. As the excitement increased, the leucocytosis gradually rose, culminating at the height of the excitement, and then gradually fell to normal. . . . These observations strongly point to the fact that the depression and excitement of folie circulaire (mania-melancholia) are quite different from ordinary attacks of mania and melancholia" (confusional insanity, dementia præcox).⁽⁶⁾

Further, he says: "Every case of epilepsy has shown hyperleucocytosis during the periods not only when the patients were suffering from epileptic seizures, but even in the intervals when the patients were quite free from attacks. The most marked

period of hyperleucocytosis follows a fit or occurs during the period when the patient suffers from a series of seizures."

Does this hold good of all the recurrent insanities and the neuroses? That question cannot at present be answered, but there is a strong presumption in favour of its doing so. There is then a toxine in the blood in the periodic group of insanities which rises and falls with the occurrence of the attacks; which seems to disappear, exactly as the malarial toxine does, in the interval between the attacks; and which exercises a less deleterious influence upon nervous tissue than the toxins of the confusional insanities do. In the meantime all that we can say is that neither mania, melancholia, nor paranoia ever result from external infections, intoxications, or visceral diseases. Dr. Dercum says, "To speak of a delirium as a mania because it happens to be attended by excitement is certainly a gross misuse of terms and cannot be too strongly condemned. To designate a confusional insanity as a melancholia merely because the delusions are distressing or painful is equally unscientific and reprehensible. To say that a melancholia is caused by typhoid fever or that acute mania is caused by the abuse of alcohol is to utter nonsense."⁽⁶⁾

I have included paranoia (progressive systematised insanity) among the recurrent insanities. It is not, however, a periodic but a continuous affection. There is, moreover, no hyperleucocytosis, and, so far as we as yet know, no toxæmia. If there is a toxine, it is of an essentially different nature from the toxins we have been discussing. In paranoia, however, there is a distinct periodicity in the course of the symptom, as evidenced by the marked remissions and exacerbations which are one of the chief clinical features of the disease. Again, paranoia is allied to mania-melancholia in that it is a degenerative, highly neuropathic condition arising without known cause and of the pathology of which we are in entire ignorance. The typical form of the disease begins with a phase of depression extending over many years, and accompanied by delusions of the same depressive type, especially delusions of persecution. After a long but indefinite period, generally many years, the phase of depression and the distressing delusions which accompany it give place to an opposite condition of mental exaltation, with delusions of a corresponding character, chiefly of grandeur. It is necessary to distinguish carefully between

paranoia and the dementia paranoides of dementia præcox, which is a confusional manifestation of delusions with wholly different symptoms and course. It is impossible here to enter upon a detailed description of paranoia or to defend the position it occupies in the classifications of the leading alienists of Europe and America. There are many varieties of paranoia, many of them by no means typical, but they are all amenable, with slight apparent discrepancies, to the descriptive definition given above. It cannot be too strongly insisted on that mania-melancholia and paranoia are in many respects identical with the neuroses. They depend upon no external causes for their origin any more than epilepsy or hysteria do. It is interesting to observe the fact that many of the subjects of the mania-melancholia syndrome as well as many of the subjects of epilepsy have a weakness for alcohol, especially, as Kraepelin points out, after one or more attacks have been passed through. There can be no doubt that an intemperate indulgence in drink may precipitate an attack of mania or of epilepsy which might otherwise have been delayed in its occurrence. Hence has arisen, probably, the mistaken idea of the causal connection of alcohol to this group of diseases. In a previous lecture the connection between the different neuroses was illustrated by comparing the age of onset in each form. In the same way the relationship of the functional insanities to the neuroses may be shown. Thus, paranoia in the great majority of patients first comes under notice between the ages of 25 and 40 years. It has to be remembered, however, that the progress of this disease is slow and insidious, and that the age of actual commencement is probably very much earlier. Seventy-five *per cent.* of the cases of mania-melancholia begin before the age of 25; seventy-five *per cent.* of the cases of epilepsy begin before the twentieth year; eighty-six *per cent.* of the cases of hysteria before 25; and 77 *per cent.* of the cases of alcoholism under 30 years (sixty-two *per cent.* occur under 25).

The next class of the recurrent insanities is that of obsession and impulse. Of the hereditary and neuropathic origin of this group there can scarcely be a doubt, and I do not know that there is any difference of opinion among specialists. It is pretty generally assumed that they are manifestations of neurasthenia; but while not disputing the theory—nay, while concurring with it to a certain extent—it may be pointed out that such an ex-

planation does not solve the problem of their origin : it only throws us back upon the other insoluble question, "What is neurasthenia ?" The imperative ideas which form the basis of all obsessions, are as varied as there are thoughts in the human mind. The most common obsessions are those arising from acquired neurasthenia and are of the nature of weakness, fear, and indecision. Such obsessions, exaggerated to any considerable extent, constitute in themselves a very serious mental affection. But when anti-social obsessions take such a firm hold of the mind that they cannot be thrown off by the subject, the matter is more serious still, and a pathological mental state of grave import is present.

[Lantern slides showing the comparatively slight nature of the changes in cortical cells, even after prolonged subjection to various forms of recurrent insanity, were shown.]

I have already dealt with the neuroses, and they will only be incidentally referred to again as occasion requires. Dementia implies a weakening of the expression of ordinary mental processes. It varies from the most partial impairment up to a complete suspension of the common characteristics of human intelligence. Dementia may be congenital, or it may succeed gross disease of the brain attended by destruction of its tissues, or it may be consequent upon organic impairment of the cortical cells (or portions of them) due to the causes which we have seen to be the origin of the great group of confusional insanities. It is not, as we might expect, a frequent consequent of the recurrent insanities. When it does succeed the latter it is not because of a destructive toxic process, but because of a tendency to premature involution or senile brain degeneration on the part of the subject, which premature senility is one of the special marks or stigmata of the degenerate or neurotic as a class. Indeed, it is a fair question to ask how far a certain proportion of dementias, occurring in comparatively early life, are not of the nature of premature involutions. The larger proportion of demented patients in asylums are the products of the confusional insanities and more especially of dementia præcox.

The insanities of old age commence to make their appearance earlier in life than is generally supposed. Thus we find in late middle life a particular form of melancholia which is known as "climacteric" melancholia begin to appear. It is a prolonged, very emotional, and somewhat unfavourable form.

This is the true melancholia. There is no melancholia of early life and no mania of late life. That is to say that, with the exception of the melancholia of the climacteric and senile periods, mania and melancholia, as isolated and uncomplicated entities, only occur as phases of the great mania-melancholia syndrome which as a rule makes its appearance for the first time in early adult life. No doubt such a statement as I have just made sounds dogmatic and altogether too sweeping; nevertheless for the present it must remain until refuted upon uncontroversial clinical testimony. At a later age than the climacteric the forms of insanity become of the senile type; in other words, they are dementias of involution. The symptoms are again confusional, complicated with the loss of memory, with emotional disturbances, with illusions and hallucinations of the senses, or with vague systematised delusions.

Such, then, is a brief and altogether too short *résumé* of the principal features of the elements of the classification which I have placed before you. In order to determine the relative frequency of the various diseases I have prepared the following table:

TABLE II.

Percentage of different Forms of Insanity admitted into Asylums in Germany and America.

	Cases.	Per cent.
I. Congenital defect . . .	1314	4·1
II. Confusional insanities :		
Puerperal insanities . . .	618	1·9
General paralysis . . .	2850	8·9
Alcoholism . . .	5881	18·5
Dementia præcox . . .	4757	15·0 (44 per cent.)
III. Recurrent insanities :		
Mania-melancholia . . .	5013	15·8
Paranoia . . .	1027	3·2
Epilepsy and hysteria . . .	2607	8·3 (27 per cent.)
IV. Senile insanity . . .	5149	16·2
V. Dementia . . .	2500	7·8
Total	31,716	99·7

(Compiled from figures kindly supplied by Dr. Dercum of Philadelphia and Professor Myer of Königsberg.)

The two prominent features of this table are the diversity of the clinical forms which constitute the group of affections which we loosely term "insanity" and the various proportions which the separate entities bear relatively to the whole group. It is manifest that their pathogeny or causes must be as varied as their clinical manifestations are diverse; for a glance at this table will suffice to show that insanity is not a simple affection, but a group of wholly distinct affections with only the artificial connecting-link that they all result in a disturbance of mental processes. Congenital mental defect must depend upon mal-development of the brain. In the large majority of cases this, as we have seen, is a germinal variation, correlated to well-defined physical malformations which are known as physical stigmata of degeneration.

We have good grounds for believing that the confusional group of insanities are always associated with the presence of a toxine which acts injuriously upon the nervous system. In the subjects of alcoholism that poison is, in the first place, alcohol followed by a secondary intoxication. In general paralysis it is believed, in a majority of instances, to be a secondary intoxication rendered possible by a previous syphilitic infection. In puerperal mania the infection is not constant, but is due to the invasion of the system by more than one micro-organism.

With regard to dementia præcox, we have seen that 70 *per cent.* of the subjects are hereditarily predisposed; that some of them are congenitally weak-minded; and that many of them owe their malady to the effect, in the first instance, of such infections as those of typhoid fever, scarlet fever, and perhaps phthisis and other similar diseases. After reading Jeandelize's interesting treatise on "thyroid insufficiency" and Dr. Lewis Bruce's articles in the *Journal of Mental Science* (1895) on the treatment of certain forms of insanity with thyroid extract, I cannot help thinking that in insufficiency of thyroid excretion, particularly of the secretion of those small but highly important glands known as the parathyroids, we have an exact parallel to the clinical picture presented in certain phases of dementia præcox. We know how important the function of the thyroid gland is in the causation of cretinism and of myxœdematous insanity, but we know nothing of the effects of partial suspension of its secreting function or of the influence of the para-

thyroid gland on the mental functions, except what physiologists like Jeandelize tell us. It is suggestive that the causes which produce many of the forms of confusional insanity also produce organic or functional disease of the thyroid and parathyroid glands. These are syphilis, alcohol, tuberculosis, fevers, and various infections. The nervous results of removal of the thyroid, more especially of the parathyroid glands in animals, are briefly as follows: mental confusion, manifested by indifference to surroundings, apathy, and depression. At other times there is displayed great agitation, accompanied by delusions of terror, illusions and hallucinations of the senses. At other times there is delirium of the maniacal type. These symptoms are followed by somnolence, rigidity of the muscles, catalepsy, coma, and death. It is significant to observe in this connection that some authorities consider that one of the functions of the thyroid secretion is to keep the body free from noxious organisms and their toxines. The effects of extirpation are much more serious in young animals than in those which have reached full development. It is the same in the human species. The results of imperfect development or of disease of the glands before completed adolescence is to arrest absolutely the growth and the function of the nervous system at the stage of supervention of the gland affection. As a consequence of operations for the total or partial removal of the thyroid gland in man a host of nervous symptoms, the chief of which are tetanic convulsions, have been observed. On the mental side there have been noted "agitated" melancholia, stupor, delusions of persecution, accompanied by acute phases of excitement and depression. It is unnecessary to point out that these mental symptoms are those which we have already designated confusional. While the symptoms of cretinism and of myxœdema are known, we are at the stage of ignorance regarding the result of acquired thyroid insufficiency in adolescence and adult age. A few interesting observations of a clinical kind have, however, been made by Jeandelize, Bruce, Easterbrook,⁽⁷⁾ and others. From these it would seem that the symptoms of myxœdema are not necessarily present in cases in which thyroid insufficiency may be judged to be the cause of nervous disturbance; that the mental symptoms may be intermittent; that maniacal agitation, illusions and hallucinations, delusions of persecution, and, finally, dementia result

from this cause. The great number of bodily changes which are directly due to thyroid insufficiency—for instance, the changes which are indicative of premature old age, of various forms of rheumatism and gout, and of arterial sclerosis—leave no room for doubt as to the important rôle which the thyroid gland exercises in the economy of the body. Those who hold, therefore, that failure of its proper secretion is the cause of climacteric melancholia and of the pre-senile insanities are probably not in error. If the thyroid and parathyroid glands play such an important part in the production of abnormal nervous phenomena, we may be tolerably certain that an equally important part is exercised by the other ductless gland, by the bone marrow, and by the pituitary gland, etc. In the elucidation of the causes of insanity therefore we have to do, not with hereditary imperfection of the nervous system alone, but also with bodily changes which are equally important.

What we call the neuropathic constitution must imply three things: (a) a structural variation from the normal type of cerebral architecture, implying a gross difference in the size and arrangement of the nerve-cells, or both; (b) structural variation in the form and functions of various bodily organs; and (c) a diminished power of immunity on the part of the body tissues against invasion by toxines and the products of micro-organisms. Now, all these features must be correlated with the physical conformation, although we have scarcely begun to realise that supreme fact. When we do realise it ultimately our whole conceptions will have undergone such a radical revolution that the neuropathic constitution, so far from being an abstraction and an intangible entity such as I am trying to grope after, will have become a fact of the utmost importance in medical and social science.

(1) Delivered before the Royal College of Physicians, Edinburgh, January 30th, 1905.—(2) Delivered before the Royal College of Physicians, Edinburgh, February, 1904.—(3) *Journal of Mental Science*.—(4) *Archiv de Med.*, 1892, and *Annal. Med. Psychol.*, 1894, 1903-4.—(5) Dr. Bruce's classification is different from the one used by me.—(6) *Journal of Nervous and Mental Diseases*, vol. xxviii, New York, 1901.—(7) Jeandelize, *L'Insuffisance Thyroïdienne*, Paris, 1903; Bruce, *Journal of Mental Science*, 1895; Easterbrook, *Brit. Med. Journ.*, 1900.

Concerning the Continuity of the Nerve-Cells, and some other Matters connected therewith. By JOHN TURNER, M.B.

WORKERS in the finer structure of the nervous system are suffering from a plethora of observations. New and more searching methods are being discovered every day, and no sooner does he who sets about constructing a scheme of the central nervous system arrive at something which appears to be satisfactory than he has to pull it to pieces and reconstruct it, to fit in further detail which has been brought to light in the meanwhile. Until this vast array of observations has been properly digested, a process which may well take years, we can scarcely hope to obtain a scheme of the relationship of the nerve-cells to one another which will be more than a working hypothesis.

One great point which leads to much controversy is that with the special and often tedious processes which are required to show finer detail, no one in particular shows the whole picture; one picks out this structure, another that, and the result too often is that he who works by one process emphasises unduly the things he sees, and is apt to lightly brush aside as "artefacts" those structures which his method does not show.

Bethe, in his masterly work on the nervous system recently published, has constructed a series of schemes showing the evolution of the nervous system from worms to vertebrates as he conceives it to be. In this last class he shows a picture of the supposed course of neuro-fibrils from their starting-point in the skin, passing uninterruptedly through spinal ganglia cells and other nerve-cells until they terminate in muscle or gland. This scheme suffices for the facts which he has been able to determine by Apáthy's methods and his own, but it entirely ignores a very extensive class of nerve-cells which apparently are not shown by the methods he uses. I refer to cells which both by Ehrlich's vital and my methylene blue and peroxide of hydrogen (pseudo-vital) method stain out nearly black in contradistinction to the pyramidal cells, which are barely coloured at all. The richly branching processes of these dark or intercalary cells bulk very largely among the structures forming

the cortex. And further, no place is given in Bethe's scheme to the pericellular beaded network which envelops probably every pyramidal cell from the second layer inclusive to the spindle-cell layer, and which appears to be an extension of the dendritic branchings of the intercalary cells. And it naturally seems to me that any scheme which ignores such widely distributed structures is, to say the least, incomplete.

Apáthy some years ago demonstrated, in the case of invertebrates, that neuro-fibrils in the animals (leeches, etc.) which he investigated passed uninterruptedly from one ganglion cell to another, and Bethe has brought forward a large amount of evidence to show the same thing in vertebrates.

The adherents to the neurone doctrine, although they claim that Waldeyer did not regard it as being necessarily based upon the absolute anatomical independence of the nerve-units, tacitly assumed that such was the case, until at all events the accumulation of adverse facts became too strong to be ignored any longer.

Lugaro has recently insisted upon the right of any scientific theory to undergo evolution. No one, I should imagine, would desire to cavil at such a statement; but to read the mass of literature on the subject up to, at any rate, a very recent period it was difficult to detect that any alteration or development had taken place in the views of those who support the neurone doctrine. If anatomical continuity is compatible with this doctrine, then this paper has no concern with its validity, for it merely records some observations which show that nerve-cells are directly continuous with one another.

Synopsis of Bethe's Views.

Bethe states in his recent work *Allgemeine Anatomie der Nerven Systems* that phylogenetically nerve-nets are the lowest form (most rudimentary) of nervous system. These consist of small cells with two, three, four, or rarely five, processes, those of one cell being directly joined to those of another, and *there is no distinction between axon and dendrites*. The processes are all relatively short. In some lower forms (medusæ) they constitute the entire nervous system. No animal is altogether without them, but in vertebrates they are chiefly found in connection with the vascular system and the skin.

The nervous nature of these cells has often been doubted, but apart from many instances showing the passage over of fibres from myelinated nerves to those of nerve-nets, the presence of neuro-fibrillæ in the cells (Apáthy) practically settles the matter.

With the progress of development in the animal series some of these cells become specialised, and eventually one process is differentiated from the rest as an axis cylinder.

Amongst invertebrates it has been shown (Apáthy, Allen, etc.) with tolerable certainty that neuro-fibrils pass without a break from the periphery, through receptive nerve-cells, ganglion nerve-cells, to the muscles, glands, etc. In some of the lowest forms with definite central nervous system (*e.g.*, worms) these neuro-fibrils break up within the ganglion cells into an elaborate latticework, so that they may form connections with other neuro-fibrils passing through other ganglion cells. In these low forms the whole of this latticework is confined to the interior of the nerve-cells, but as we pass up in the scale we find that more and more the latticework comes to lie outside the nerve-cells in the surrounding matrix, until when we reach the vertebrates practically all the latticework is extra-cellular, except in the spinal ganglia cells (receptive cells), and possibly in the Purkinje cells of the cerebellum.

It must be understood that neuro-fibrils on their way to their destination may pass through many ganglion cells without necessarily making connection with their fellow neuro-fibrils in these cells.

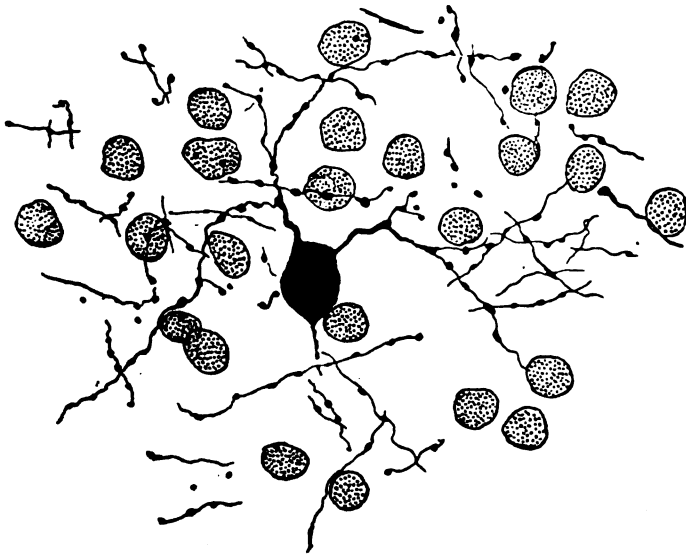
Bethe's conception of the precise structure of this extra-cellular latticework will be referred to later on when dealing with the Golgi nets.

Personal Observations with the Methylene Blue and Peroxide Method (Pseudo-Vital).

Intercalary cells of cerebrum.—Both Ehrlich's vital and my pseudo-vital method show clearly that there is a marked difference in the staining capacity of the cortical cells whereby some (the pyramidal or Purkinje cells) are barely coloured at all, whilst others (what I now term intercalary cells) stain nearly black. These methods also show that the pyramidal (including Betz) cells are invested by a loose beaded network (see photo-micrograph

No. 2), which I have been able in man and rat to demonstrate around cells of *all* the cortical layers. Hence the inference seems justifiable that every pyramidal cell of the cortex (and I include under this designation Betz cells, and those of the second and spindle layer) is enveloped in this network, which appears to be a continuation of the dendrites of the intercalary cells. I have met with a number of cases in which this derivation of the beaded network was apparent, and I have already in this Journal produced a photo-micrograph which shows this (January,

FIG. 1.



Calcarine fissure; granule layer. An intercalary cell lying among granule cells (which are here only indicated by their nuclei). Notice the sinuous course of its processes, and how eventually they assume a beaded appearance. Compare this cell with the two in Fig. 2.

1903); but it is not often that the instances which show their dendritic origin lend themselves to photography, considerable variations of focus usually being required to follow the course of the fibres of origin. Perhaps photo-micrograph No. 3 shows as conclusively as one can expect by this means that delicate beaded fibrils spring from the dendrites of the intercalary cells to take part in the beaded structure around the pyramidal cells.

Fig. 1 is a *camera lucida* drawing of an intercalary cell in the

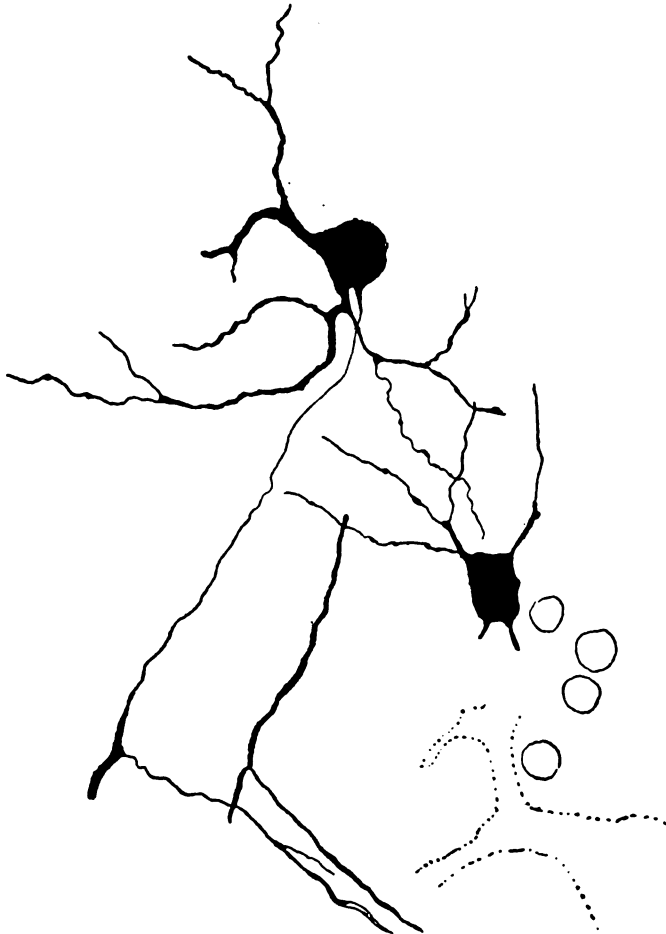
granule layer of the calcarine fissure, with its dendrites springing abruptly as slender branches from the rounded cell body and dividing up into numerous delicate beaded fibrils which course sinuously about among the granule cells. In the calcarine fissure, although the beaded fibrils lie thickly spread among the granules, they do not appear to form definite networks about them. The fibrils here are stouter and the beads larger than in the frontal and ascending frontal cortex. In both these respects and in others not here mentioned the structure of this region of the occipital cortex is very similar to that of the caudate nucleus.

In all probability the "terminal knobs" or "boutons," described by some observers as the terminations of axis cylinders around nerve-cells, are parts of the pericellular beaded network imperfectly shown. Van Gehuchten, dealing with these structures as shown by Cajal's new silver method, denies that they form a network, but states that the "boutons" are *always* independent of one another; but my method shows in the most unmistakable manner that these knobs, boutons, or beads as I call them (presuming that we are dealing with the same thing), are connected in every case by delicate fibrils, and moreover that at some of the knobs a Y-shaped branching occurs, and a little further on each branch again divides. In dealing with such very minute objects it is impossible even with oil-immersion lenses to be absolutely certain in all cases whether fibrils are continuous with one another or only overlap, but I think that the arrangement of the fibrils just described is strongly in favour of the net-like character of this pericellular structure.

Intercalary cells of cerebellum.—I have assumed, in spite of certain differences which will be shortly discussed, that the dark cells of the cerebral cortex are homologous with those of the cerebellar cortex. They have, besides their similarity in staining capacity, other distinctive features in common, so that altogether there are four main points by which they are characterised, *viz.*: (1) dark staining; (2) shape, chiefly oval, pentagonal, square, or round, rarely pyramidal, and in all cases their dendrites spring from them abruptly as relatively slender stems, and do not pass off by insensible degrees, as in the case of the pyramidal cells; (3) the dendrites run for long distances as slender branches, retaining a fairly uniform calibre; they are

irregular in contour, with moniliform swellings or lateral twigs, and their course is always sinuous, contrasting with the almost

FIG. 2.



Two basket cells belonging to what I term the intercalary cell system. Notice the very slender process passing from the upper one, which eventually swells out into a comparatively wide basket fibre, and from which again a delicate fibril is given off, which itself eventually broadens into a tape-like band to form part of a basketwork about a Purkinje cell. The upper part of a Purkinje cell is shown in dotted lines, and one or two granules. Notice the beaded character of the processes (other than that from which the basket fibre arises).

universally rectilinear course of the dendrites from pyramidal cells ; (4) they are not definitely orientated.

The difference just referred to between the cerebral and cerebellar intercalary cells is that, whilst the former appear to give origin from their dendrites to a beaded structure loosely enveloping the pyramidal cells, the cerebellar intercalary cells, from processes generally regarded as axons, give origin to the Purkinje cell basketwork, which differs very materially from the beaded network. In the first place, it is not beaded, and the individual fibres of which it is formed are generally broad tape-like bands running chiefly from the molecular layer aspect of the cell to the granular, and with only a few lateral or connecting twigs. Around the axons of the Purkinje cells the fibres blend together, and form a tube in which the axon loosely lies. I believe that here in this tube-like portion there is direct connection between different basket cells.

The basket fibres which lie above the Purkinje cells in the inner half of the molecular layer, and form a well-developed system of stout darkly stained threads, running with a gentle sinuous course parallel to the surface, originate from the basket or intercalary cells as extremely fine threads, which at a little distance from their origin somewhat abruptly thicken out (see fig. 2). From this thick fibre again delicate wavy threads pass down which eventually broaden out into tape-like bands forming the basketwork.

It is extremely common for these basket fibres to turn completely back on themselves and run in the contrary direction; in fact, I have never yet examined a section of the cerebellum stained by this method which did not show numerous instances of this peculiarity. And sometimes a fibre not only bends right round on itself, but after running a short distance turns again, and runs more or less in the original direction. Now, if these fibres are axons and transmit impulses from one part to another, this is a very roundabout way of doing so; but if, as I would suggest, they are not axons, but serve for the distribution of impulses, then their circuitous course can more readily be accounted for.

In some cases a fibre can be seen passing off from the convexity of one of the bends (see fig. 3), a condition which is strongly suggestive of the continuity of these cells with one another.

Thus it will be seen that although in many points the dark cells of the cerebellum bear a strong likeness to those of the

cerebrum, they differ in the form of investment that they give rise to, and also apparently in the manner by which this investment originates; but in regard to this latter point I shall endeavour to show that the difference is not so great as it appears on the usual assumption that axons are solely concerned with the passage of afferent impulses, and dendrites with efferent, a theory which is known as the law of dynamic polarisation.

From personal observations with Cajal's new silver method for staining neuro-fibrils I have been able to perceive that neuro-fibrils pass from one dendrite of a particular cell through the cell-body and out by another dendrite. Bethe shows this state of affairs clearly in some of his figures, and so, apparently, does Max Bielschowsky. If neuro-fibrils behave in this way,

FIG. 3.



A basket cell with slender process widening out as it passes along into a stout basket fibre, which turns back on itself. Notice on the convex aspect of the band a fibre is present, which it is suggested comes from another basket cell.

it seems to me that this of itself is quite incompatible with the law of dynamic polarisation, on the assumption that they are the conductors of nervous impulses, for it is obvious that in whatever way the impulse passes along such a fibril it must travel cellulipetally in one dendrite and cellulifugally in the other. I would suggest that axons and dendrites differ in that the former are concerned with the transmission of nervous impulses from or to distant parts, whilst the latter serve as distributors or receivers of impulses, and that their sphere of action is limited in this respect to comparatively small areas. Of course, as neuro-fibrils run within dendrites from one cell to another, this distinction would be only relative; to a certain extent the dendrites would be implicated in the transmission of impulses, but this would be only a subsidiary part of their function. From this point of view there is no difficulty in bringing the posterior ganglia cells into harmony with others,

whereas now it is necessary to assume that the peripheral part of their process is a dendrite, which has, however, taken on all the anatomical features characteristic of an axon. These cells are peculiarly placed; they are remote from the periphery whence they receive impulses, and also from the nerve-cells to which they transmit the main portion of these impulses, and therefore, on my supposition, the process on both sides of the cell is axonal and anatomically identical. There is no fundamental difference between dendrites and axons, and, as has been pointed out, according to Bethe originally all cell processes were similar. Both consist essentially of neuro-fibrils, but as axons have to transmit their impulses a long way they are provided with sheaths which, among other functions, probably serve to protect and insulate the contained neuro-fibrils.

On this supposition some of the objections against regarding the dark cells of the cerebellum as homologous with those of the cerebrum are removed, but still some remain. We have no clue, either from methylene blue methods, or any other that I know of, how the *beaded* dendrites of these cerebellar cells are brought into connection with other cells, although probably we shall eventually be able to establish a direct connection between them and the axons of other, possibly granule, cells.

If, as I have suggested, the basket fibres are not really axons, then it would seem as if these cells have no process corresponding to such; they would come under the denomination of amacrine cells; but the dark cells of the cerebrum have well-marked axons.

Dr. Alexander Hill has shown, with considerable probability, in cats' and rats' brains, by the Golgi method, that the granule cells of the cerebellum are sometimes continuous with one another, and that fibres which start as the axons of certain larger cells end, after subdivision, by uniting directly with smaller cells.

These intercalary cells are met with in large numbers in all regions of the cerebral cortex and in the molecular layer of the cerebellum, in which latter site they are much more numerous than the pale (Purkinje) cells, whereas in the cerebral cortex the pale (pyramidal) cells are the most numerous. They seem to be also more numerous in the occipital lobe (calcarine fissure area) than in the ascending frontal. In the frontal region they

are plentiful; here their number is not much below that which they attain in the occipital region. The caudate nucleus, which is only a modified (? abortive) form of cortex, also contains a large number, and here they show with great clearness the lateral projections, in some cases ending shortly in a knob, and in some extending for long distances as beaded fibrils. Probably homologous cells occur in the thalamus.

It appears to me that a scheme of the nervous system which leaves out altogether such widely distributed cells as those I have just described is inadequate.

Golgi Nets.

One of the coats or investments of the ganglion cells is the structure described by Golgi, and named after him, which must now receive some consideration because it is assumed by Bethe to play a very important part in his scheme of the vertebrate nervous system.

It appears as a trelliswork structure *closely* investing the nerve-cells and their processes; the apertures of the trellis are pentagonal, but, according to Bethe, they vary somewhat in different nets, so that it is possible by inspection of a portion of the net to determine to what region the nerve-cell it covers belongs. A little black spot is frequently present in the centre of the pentagon without visible connection with the trabeculæ. A glance at photo-micrograph No. 1 shows clearly the general appearance of these nets, and also that they cannot be confounded with the pericellular beaded network (photo-micrograph No. 2).

These Golgi nets may be taken to illustrate the tendency, which I have referred to in an earlier part of this paper, for workers by special methods to designate structures which it is charitable to assume they cannot be familiar with in methylene blue preparations as "artefacts."

This must imply one of two things: either it must be assumed that two such widely different methods as Golgi's and methylene blue produce an artificial structure of such complexity, and of such microscopic minuteness, identically the same in both cases, and also differing constantly in its artificiality over cell bodies of different cells—a state of affairs which would be nothing short of miraculous; or it means that

the structure is merely an appearance due to faulty technique, wrongly interpreted, and caused by an incrustation of the stain around recognised structures, which are thereby masked and incorrectly presented to view—an implication which the granular nature of silver impregnation lays itself open to. But the fact that it is revealed in a precisely similar form by a stain which does not give rise to any incrustation is strong evidence that this alternative is untenable.

Now Bethe, in opposition to most other observers, maintains that Golgi nets are nervous structures, and that neuro-fibrils are contained within their trabeculæ, these latter forming a kind of sheath or covering for the neuro-fibrils. The neuro-fibrils from distant parts emerge from the Golgi net, and pass into the nerve-cell, which it envelops, and *vice versa* neuro-fibrils leave the cell and enter the net and run to other nerve-cells by way of a diffuse Golgi net structure which he describes as occupying the whole matrix betwixt ganglion cells, and which he believes to be identical with Nissl's hypothetical "grey."

In Bethe's estimation, therefore, the Golgi net system takes the place in vertebrates of the intra-cellular latticework which is found in the ganglion cells of the invertebrates.

Ramón y Cajal, Donaggio, Held, and even Apáthy (with whom in general Bethe is in agreement) all regard these nets as glial in nature, and from my own observations on rats' brains I can strongly endorse their view, for I have frequently seen an apparently direct continuity between the branches of small glial cells and the network, which is in effect a ramification of the branches of these glial cells.

I am inclined to believe that the pericellular beaded network will be found to be the great medium for establishing direct connection between the different cells of the central nervous system; and although there is no difficulty in constructing a scheme of the cerebral cortex on this basis which reconciles the main appearances seen by Cajal's silver method for neuro-fibrillæ and those shown by my method, there are still so many points not yet cleared up that I do not think there is any advantage in setting forth a scheme liable at any moment to be overthrown by freshly discovered facts. And further, before such a scheme can in any degree hope to be lasting, it must also include the relationship of the cerebellar cells, of which we are still largely

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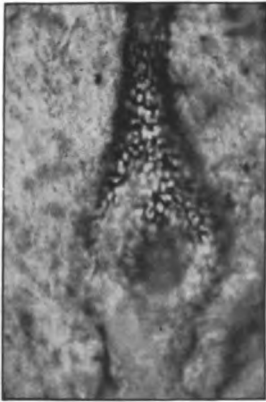


FIG. 1.

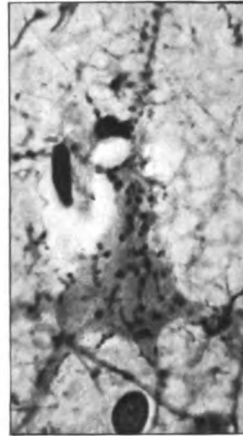


FIG. 2.

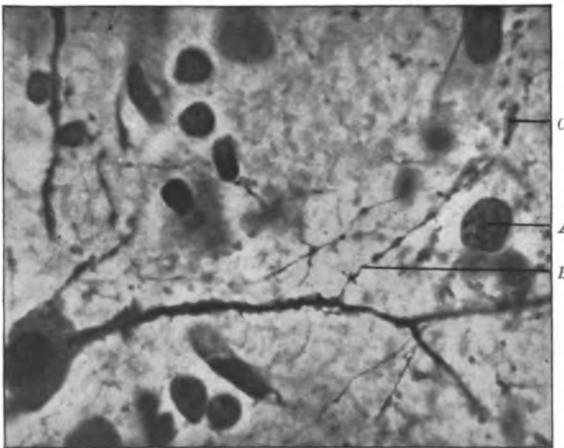


FIG. 3.

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To illustrate Dr. JOHN TURNER'S paper.

ignorant. There are crowds of fine details shown by my method which I am unable as yet to interpret. A glance at a successful preparation, say from the frontal cortex, shows myriads of delicate *beaded* fibrils coursing in all directions, some of which can be traced for two or three hundred microns. These threads are as slender as neuro-fibrils, but usually these latter appear of a perfectly smooth contour; all those figured by Bethe are without heads, as well as are all those I have seen by Cajal's method; nevertheless I believe them to be neuro-fibrils.

The one point on which I feel fairly confident is that the method shows a true continuity between the different cells of the cortex; for not only are the intercalary cells joined together by their processes, but from the beaded pericellular network to which they give rise, fibres pass directly into the axons of the pyramidal cells.

In spite of Lugaro's recent protest, it appears to me that no one as yet has even shaken the evidence on which Apáthy, Bethe, and others base their views on the continuity of the nerve-cells of invertebrates by means of neuro-fibrils, a continuity which is not, as Lugaro holds, a special case, but which appears to exist universally between the nerve-cells of the invertebrates so far as these have yet been studied in this connection. And although the evidence on which this continuity in the invertebrates is based may not be considered so convincing, from an evolutionary point of view if it exists in some classes of animals, with great probability it occurs in all.

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PHOTO-MICROGRAPHS.

- No. 1.—Shows a Golgi net over a cell from Deiter's nucleus of a young rat.
No. 2.—Pyramidal cell from frontal cortex (human), showing its pericellular beaded network.

No. 3.—Shows an intercalary cell (to left of picture) giving off a stout process. Notice how this process springs abruptly from the cell, is somewhat irregular in contour, and runs for some distance without diminishing in calibre. At the right-hand side of the picture is a pyramidal cell, of which the nucleus (A) only shows in the photograph. A little distance above the nucleus some of the beaded fibrils of the network about the apex of the pyramidal cell can be seen (c). Springing from the side of the process of the intercalary cell, a short distance before it bifurcates, is a delicate beaded fibril (B), which runs up obliquely to join and take part in the network about the pyramidal cell.

All three photographs are magnified 700 diameters.

Amentia and Dementia: A Clinico-pathological Study.

By JOSEPH SHAW BOLTON, M.D., M.R.C.P., Fellow of University College, London; Senior Assistant Medical Officer, Lancaster County Asylum, Rainhill.

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Introduction.

THE following paper consists of further instalments of a research which has been conducted by the author for several years and which deals with the general pathology of mental disease from both clinical and pathological standpoints. The essential bases of a scientific general classification of mental diseases are a morbid anatomy and a general pathology. Before the latter problem could be successfully attacked a prolonged

study of the structure and mode of development of the cell-layers of the cortex was necessary. This was commenced by a lengthy investigation of the region of the cortex concerned with the special sense of vision, and a paper on this subject was published in 1900.⁽¹⁾ This paper dealt, by the method of micrometric examination, with the general histology of the regions of the cortex cerebri concerned in the immediate reception (projection centre) and the elaboration (lower associational centre) of visual impressions; and the research resulted in the exact localisation of the primary visual area of the cerebral cortex. This region was described by the author as the "visuo-sensory" area, and to the surrounding area of visual association he applied the term "visuo-psychic."⁽²⁾ The results obtained from this study of the cortical areas concerned with one special sense were considered sufficient for the purposes of the research, and the region of the cortex cerebri which occupies a higher plane in the hierarchy of cerebral function than those concerned with sensory reception and elaboration was then taken into consideration. Before, however, it was possible to apply the same method to the region of the cortex cerebri concerned in higher association and the general orderly co-ordination of psychic processes, it was first necessary to satisfactorily determine the particular part of the cortex which possesses these functions, as this is the subject of grave dispute on the part of different authors.⁽³⁾

This question was settled by a careful clinical and pathological analysis of 200 cases of mental disease, with the result that the regions of under-development in cases of developmental mental deficiency and of wasting in cases of dementia (or permanent psychic disability due to neuronic degeneration) were satisfactorily determined to have their chief focus in the prefrontal region.

The cortex cerebri of twenty carefully selected cases was then examined by the micrometric method. The material made use of was obtained from the cerebra of normal individuals, of foetuses of different ages, and of cases of marked mental deficiency, of chronic and recurrent insanity without dementia, of chronic insanity with moderate dementia, of severe and gross dementia, and of gross dementia paralytica (general paralysis of the insane).

The research dealt with the modes and time of development

of the cell-layers of the cortex cerebri and with their relative degrees of development and retrogression in these different types of mental alienation.⁽⁴⁾ As this investigation elicited many important facts and is the basis on which the present research has been founded, the conclusions which were derived from it will be referred to at some length.

The cortex cerebri is composed, in the opinion of the author, of five primary layers. Of these, two, the first or superficial, and the fourth, are essentially nerve-fibril layers. The remaining three, namely the second, the third, and the fifth, containing respectively the "pyramidal," the "granule," and the "polymorphic" cells, are essentially nerve-cell layers, and form the original basis from which the complex adult cortex cerebri is derived. Owing to the absence of this key to the structure of the cerebral cortex, much confusion, especially in the nomenclature employed by different authors, has arisen. For example, in the primary visual area, the third or granule layer (middle cell layer) is hypertrophied and duplicated owing to the presence in its midst of the line of Gennari, but it is often described as three separate layers. Again, the second or pyramidal layer (outer cell layer), which is structurally and developmentally single, is commonly subdivided into separate layers of small and large pyramids. The Betz or ganglionic cells, also, which lie in the fourth layer or inner line of Baillarger (inner fibril layer) of the psychomotor area, and are homologous with the "solitary" cells lying in this layer in other regions of the cortex, are commonly described as "pyramidal cells," and referred to as if they were part of the pyramidal layer of nerve-cells.

The following conclusions concerning the functions of the three primary cell layers of the cortex cerebri resulted from the researches of the writer.

(1) *The second or pyramidal layer of the cortex cerebri (outer cell-layer).* (a) *The prefrontal region.*—The pyramidal layer is the last cell-layer of the cortex to develop during the process of lamination, and it is also the first to undergo retrogression in dementia. It is the only layer which appreciably varies in depth in normal brains; the degree of its development in normal foetuses and infants varies directly with the mental power of the individual; it is under-developed to different degrees, not only in idiots and imbeciles, but also in chronic and recurrent lunatics without dementia; and the degree of its retrogression in de-

mented patients varies directly with the amount of dementia existing in the respective cases. (b) *The visuo-psychic region*—The pyramidal layer reaches practically the same adult depth as in the prefrontal region, but it does not vary in depth according to the degree of dementia, though a small and practically constant decrease in depth is evident. This layer develops much later than does the pyramidal layer in the visuo-sensory region, and in a child of one month it is less than two thirds of the adult depth. (c) *The visuo-sensory region*—The pyramidal layer in this region is in the adult only about five ninths of its depth in the regions above referred to. It, however, develops much earlier, being in infants of one and three months very little below the adult depth.

The pyramidal layer, therefore, subserves the "psychic" or associational functions of the cerebrum. These functions are pre-eminent in the prefrontal region; they are less important in the visuo-psychic region; and they are of the least importance in the visuo-sensory region. These three regions are therefore of different grades in the hierarchy of cerebral function.

(2) *The third, or granule layer (middle cell-layer), is developed before the pyramidal layer. In the primary visual area the optic radiations end in the midst of the hypertrophied and duplicated granule layer. This layer, therefore, probably, reasoning by analogy, subserves the reception or immediate transformation of afferent impressions, whether from the sense organs, or from other parts of the cerebrum.*

(3) *The fifth or polymorphic layer (inner cell-layer) is the first layer to be differentiated during the process of lamination, and it is the last to fail in the retrogression of dementia. A decrease in this layer exists in extreme aments (whether normal infants or idiots), and in demented who are unable to carry on the ordinary animal functions, such as attending to their wants, etc. This layer, therefore, probably subserves these lower voluntary functions of the animal economy.*

In this connection it seems desirable to refer to an unpublished research in which Watson is at present engaged, and which, even in its unfinished state, would appear to prove the correctness of the writer's view concerning the functions of the polymorphic layer. Watson is making an extensive histological investigation of the cortex cerebri in various types of mammals. In his work he has adopted very closely the classification of the cerebral cortical layers described by the writer, and he clearly recognises the great importance of the "granule" or middle

cell-layer as delimiting the true pyramidal layer from the more or less pyramidal-shaped nerve-cells which are found below the granule layer. As, however, in some mammals he finds certain difficulties in accurately defining the writer's fourth and fifth layers, he prefers for the purposes of a general statement to use the terms "supra-granular" and "infra-granular," supra-granular being equivalent to the writer's second or pyramidal layer, and infra-granular including his fourth and fifth layers, although probably the majority of the infra-granular nerve-cells belong really to the polymorphic layer. As a result of his investigation, Watson has found that whilst the supra-granular layer (the writer's pyramidal) in various low types of mammal is poorly developed and inconsiderable in depth, in some consisting of at most two or three rows of cells, the infra-granular layers, on the other hand, are well developed, complex in structure, and occupy the greater part of the depth of the grey matter, constituting in every way the most prominent part of the cortex. As one rises in the mammalian scale, there is seen a corresponding increase in the depth of the supra-granular layer relative to the infra-granular. He has also found that whilst in certain mammals of little antiquity a considerable number of cells in the poorly-developed supra-granular layer remain even in the adult in a more or less embryonic condition, in other mammals of greater antiquity all, or practically all, the cells in this layer are fully developed and complex in structure.

From these facts he concludes that the infra-granular layers constitute the most important cell formation of the lower mammalian cortex as regards functional activity. Further, he considers that certain mammals of relatively great antiquity, *e.g.*, some of the insectivora, which have survived in the struggle for existence because of their adoption of a safe mode of life, have fully developed their trifling supra-granular layer, owing, no doubt, partly to their relatively longer existence in the earth's time-history. These animals, however, still depend largely upon their infra-granular layer for such mental capacity as they possess: yet, still more so, must certain other newer mammals, *e.g.*, some rodents, in which great numbers of the elements of the supra-granular layer remain, even in the adult animal, in a more or less embryonic condition, depend upon their infra-granular layer for the mental capacity they possess. These latter animals, it is concluded, are still being weighed in the balance for survival or extermination. They must either further develop their immature supra-granular layer and survive, or cease to do so, and suffer extermination, unless this is prevented by such other aids to survival as fecundity or artificial means of protection against their enemies. Taking educability as the criterion of intelligence, and correlating this with the state of development of the supra-granular layer especially, certain differences have been noted even in mammals of the same order. The guinea-pig, for example, is born in a relatively mature state, and learns little during its after-life: there is, correspondingly, little difference between the cortex of the young and adult specimens. In the case of the rabbit, however, which is born in a very immature condition, there is a marked difference in the development of the cortex of the young and adult, whilst corresponding with this fact is the observation that the young rabbit has much less intelligence than is possessed by the adult.

These and many other related facts will be published *in extenso* on the completion of the research, but Watson has kindly permitted the writer to make the above premature reference to his work.

From these studies in morbid anatomy and general histology the writer concludes that *the cellular elements throughout the cortex cerebri which are especially concerned in the performance of associational functions are those of the pyramidal layer of nerve-cells*; and he considers it proved that *the great anterior centre of association of Flechsig in the prefrontal region is under-developed on the one hand in all grades of primary mental deficiency, and on the other hand undergoes primary atrophy pari passu with the development of dementia. This region of the cerebrum is therefore concerned with the performance of the highest co-ordinating and associational processes of mind.*

As the methods of the writer have been subjected to such strictures and the results to such criticism, it seems desirable to repeat here certain reasons for the former and certain explanations concerning the latter.

The scope of the subject is so wide that a complete review of the literature bearing on many of the subjects of discussion would in itself constitute a volume. Further, the collation of such data as are obtainable from the various published articles is well-nigh impossible owing to the different methods by which they have been obtained and also in many cases to their entirely contradictory nature, even on essential points concerning the morbid anatomy of mental disease. The author has therefore, on the whole, contented himself with the recording and classifying of the results of his own observations, and at the expense of much time and trouble has personally verified even many well-known and accepted facts of morbid anatomy. This has been especially necessary as the whole research has for its object the correlation of the clinical types of mental disease and the morbid appearances observed by naked-eye examination of the contents of the cranium and by micrometric examination of carefully selected regions of the cortex cerebri in equally carefully selected cases, and as from this double point of view the literature available has been found to be of little or no practical value.

With reference to his results, the writer wishes to point out that, as the *correlation* of clinical types with morbid appearances has been his object, any given descriptions of morbid appear-

ances do not necessarily imply that he wishes to claim originality for them, as very few of those embodied in the papers are not well known or have not been frequently described at length as facts of morbid anatomy. Finally, as regards the results of micrometric examination and his positive conclusions from these, which are the basis of the present further contribution, he wishes to repeat that the utmost care was taken to obtain trustworthy material and to correctly orientate the parts made use of, and that his prolonged experience of the method of micrometric measurement adopted justifies him in guaranteeing their correctness and value.

Summary of Contents.

The present paper consists of three parts, of which the first is concerned with clinico-pathological data, and deals with the morbid anatomy of mental disease, whilst the second and third deal with clinical data only.

The first part is devoted to the general verification and amplification of the facts obtained during the writer's study of the morbid anatomy of dementia. The 200 cases previously published have been increased to 433, with practically identical results, and the percentages given in the previous paper may therefore be accepted as substantially accurate in the case of the particular population, that of the London County Asylum, Claybury, from which the data are derived. It has hence been unnecessary to insert such a minute analysis of morbid appearances as was contained in the previous paper, and only those details to which the writer wishes especially to draw attention are therefore referred to at length. It was, however, incumbent on him to repeat his observations and to generally verify and in some cases amplify the facts previously obtained, as percentages derived from the study of naked-eye morbid appearances in a large series of cases belong to quite a different plane as regards accuracy from that occupied by the statistics resulting from micrometric examination of the cortex of a small series of carefully selected cases. In the case of general naked-eye morbid anatomy, for example, the cause of death, the interval before the *post-mortem* examination, the temperature at which the body is kept after death, etc., all exercise an important influence in modifying in some degree the morbid appearances, and consequently a large series of cases is necessary for the

preparation of approximately correct percentages. On the other hand, such contrary factors as œdema or marked congestion of the cerebrum, a delayed *post-mortem* examination, etc., would render a brain absolutely useless for the purposes of micrometric examination; and the writer had, in fact, great difficulty in obtaining, in an entirely satisfactory condition, even the small number of brains he required in spite of the hundreds of cases at his disposal.

As a result of his clinico-pathological and histological studies the writer enunciated a provisional classification of mental diseases, in which he used the term "*amentia*" to in the widest sense connote *the mental condition of patients suffering from deficient neuronic development*, and the term "*dementia*" to similarly connote *the mental condition of patients who suffer from a permanent psychic disability due to neuronic degeneration following insufficient durability*.

The term *amentia* as thus defined covers a much larger group than that indicated by the terms *idiocy* and *imbecility*, and includes all cases possessing a general or special developmental deficiency which may become evident either with the dawn of psychic life or at such critical periods as early childhood and school-life, puberty, adolescence, marriage, maturity, childbirth, the climacteric, etc., at any one of which the degenerate may fail to respond normally to his environment and may show his or her inherited deficiency.

The class may be grossly divided into two subdivisions, namely, *low grade aments*, or idiots and imbeciles, and *high grade aments*, in whom the developmental deficiency becomes evident at or after puberty. In the case of the latter group, apparently complete recovery of a permanent or a temporary nature may occur, a stationary condition of insanity without appreciable dementia may follow, or at once or later a varying degree of dementia may ensue. These patients usually show more or less marked stigmata of degeneracy, and, in the case of the first two sequelæ referred to, *post-mortem* examination of the cranium shows no abnormality of the intra-cranial fluid or membranes, apart from those associated with the local or systemic diseases which are the cause of the fatal issue.

The term *dementia*, as defined by the writer, is also applied in a somewhat different manner from that sanctioned by common usage, in that it refers to a *permanent* psychic disability due to

neuronic degeneration, and not to a loss of mental power, which may be temporary or permanent. He employs the term *mental confusion* to connote the symptom-complex, which occurs in many acute cases of insanity, and which is not peculiar to what is usually described as Korsakow's disease, but occurs to some degree not only in many cases which recover, but in all cases which are developing dementia. The symptomatology of mental confusion, and the diagnosis of this from dementia, will be referred to in a later part of the paper, but the chief causes of this important symptom-complex will be briefly indicated here. These appear to be (1) *direct action of toxines*, especially alcohol and those following childbirth. In these cases, even when severe, almost complete or apparently complete recovery frequently occurs, and persons with relatively normal cerebra may probably be affected. Under this class may be included many cases of epileptic confusion, and it is into this group that the cases described by many writers as Korsakow's disease properly fall. (2) *Indirect action of toxines*, resulting in deficient nutrition of the cortical neurones (*a*) by vascular and neuroglial (and chiefly secondary neuronic) changes, which follow prolonged action of the toxine, and which are probably largely of the nature of secondary proliferation after, or of reaction to, the injury produced by the toxine. The chief, if not the only variety under this heading, is the dementia paralytica (general paralysis of the insane) which is a frequent sequela of systemic syphilis in degenerates, and which rapidly or slowly passes on to a fatal issue. (*b*) By the vascular degeneration accompanying senility or premature senility, which similarly results in secondary toxic and nutritional affection of the cortical neurones. In cases of this type, also, the dementia which supervenes, progresses rapidly or slowly till death ensues.

Onset of mental confusion.—As in the highest grades of pure amentia, so in all cases associated with mental confusion, the time of onset of the attack (*i.e.* when the potential lunatic becomes an actual one) depends on "stress" in the very widest sense, and including the causes of mental confusion enumerated above. The "stress" required may be slight, as when the hereditary disability is marked, in which case the patient rapidly enters an asylum and either partially recovers, often only to relapse, or remains a permanent inmate; or it may be extremely great, as in the highest psychopaths, where syphilis, alcoholic

excess, a generally irregular life, and the severest business strain and worry may be needed, in which case an extremely rapid case of dementia paralytica is likely to ensue; or any intermediate degree may be necessary to determine the breakdown.

Development of dementia.—In the more lowly aments the neurones are relatively stable, as their functional power is so slight that “stress” cannot intervene to any dangerous extent, and consequently these cases do not, as a rule, develop dementia, especially as they frequently die before (premature) senile involution of the cortical neurones occurs. On the other hand, in higher degenerates of any grade whose neurones suffer from deficient durability, it may almost be considered a general law that the higher the development of the neurones, the greater is the degree, or at any rate the more rapid is the progress, of the dementia which results when “stress” has determined the time of onset of the insanity. Until senility occurs, or apart from vascular changes due to whatever cause, the dementia is never severe, the ordinary chronic lunatic being the common result. It is, however, probably correct as a general average (excluding dementias ensuing on mental confusion following the indirect action of toxines) that the dementia of puberty and adolescence is severer on the whole than the dementia of maturity, and this, again, than the dementia of presenility (*e.g.*, climacteric melancholia, etc.). The primary cause of the development of dementia is thus a deficient durability of the cortical neurones. If this decrease in durability is slight, neuronc degeneration ensues in old age; if it is more marked, it occurs at the climacteric; if it is still more marked, it will appear at maturity; and if it is very marked, it will appear evident at adolescence or even puberty. On the other hand, in amentia the deficiency is developmental, though in many aments deficient durability also exists, and the mental condition thus often becomes a mixed one owing to the development of dementia in a high-grade ament or in one of the milder types of low-grade ament.

In Parts II and III of the present paper, which deal from the clinical aspect with “amentia” and “dementia” respectively, the data are derived from a study of 728 chronic or recurrent lunatics admitted into the East Sussex County Asylum, Hellingly, during the first seven months after the opening of the asylum. Practically all the cases were transfers and all were chargeable to the different unions of East Sussex. All

TABLE A.—Clinical Classification of 728 Cases of Mental Disease.

	M.	F.	T.	M.	F.	T.	F.	T.
AMENTIA.								
(1) IDIOTCY AND IMBECILITY (primary and secondary)								
(a) Extreme	—	8	—	51	43	94		
(b) Moderate	13	8	21	—	—	—		
(c) Slight	15	8	23	—	—	—		
(d) Extreme, with epilepsy	7	8	15	—	—	—		
(e) Moderate, with epilepsy	8	9	15	—	—	—		
(f) Slight, with epilepsy	2	1	3	—	—	—		
(2) EXCITED AND "MORAL" CASES								
(a) "Moral" cases	—	—	—	22	64	86		
(b) Simple emotional chronic mania	5	9	14	—	—	—		
(c) Chronic mania with incoherence and delusions	4	32	36	—	—	—		
(d) "Cranks" and asylum curiosities	6	13	19	—	—	—		
(3) RECURRENT CASES								
(a) Relapsing	7	10	17	17	30	47		
(b) Now chronic	—	—	—	—	—	—		
(4) HYSTERIA								
(a) Relapsing	6	13	19	—	—	—		
(b) Now chronic	11	17	28	—	6	6		
(5) EPILEPTIC INSANITY								
(a) Epileptic mania	—	—	—	6	18	24		
(b) High-grade amentia with epileptic mania	2	5	7	—	—	—		
(c) Mild imbecility with epileptic mania	4	11	15	—	—	—		
(d) Epileptic mania with mild senile dementia	—	1	1	—	—	—		
(6) CASES WITH SYSTEMATISED DELUSIONS (including paranoia)								
(a) Epileptic mania with mild senile dementia	—	1	1	—	—	—		
(b) Epileptic mania with mild senile dementia	10	16	26	10	16	26		
Total amentia	106	177	283	106	177	283		
DEMENTIA.								
(1) PRIMARILY NEURONIC (age, stress, or both)								
(a) Senile or "worn out" dementia in high-grade amentia, etc.	—	—	—	53	70	123		
(I) Cases with previous attacks and now chronic dementia	9	23	32	—	—	—		
(II) Chronic cases with dementia	6	7	13	—	—	—		
(III) Mania with dementia	12	8	20	—	—	—		
(IV) Melancholia with dementia	6	8	14	—	—	—		
(V) High-grade amentia, recurrent cases with dementia	4	12	16	—	—	—		
(VI) High-grade amentia, chronic cases with dementia	16	12	28	—	—	—		

	—	14	30	44	—	18	47	65
(b) <i>Pre-senile or climacteric dementia</i>								
(I) Mild	7	4	17	21	—	—	—	—
(II) Moderate	6	—	—	—	19	—	—	—
{ <i>Mania</i>	1	—	—	—	20	—	—	—
{ <i>Melancholia</i>	4	—	—	—	11	—	—	—
{ <i>Chronic insanity</i>	26	—	—	—	4	—	—	—
{ <i>Simple dementia</i>	—	—	—	—	8	—	—	—
(c) <i>Dementia of maturity</i> (chiefly from intemperance, syphilis, child-birth, etc.)	32	—	—	—	60	34	34	60
(d) <i>Premature dementia</i> (<i>dementia præcox</i>)	23	—	—	—	57	55	55	112
(I) Approximately "hebephrenic"	2	—	—	—	—	—	—	—
(II) Approximately "katoenic"	—	—	—	—	64	—	—	—
(III) Approximately "paranoid"	—	—	—	—	41	—	—	—
(2) PROGRESSIVE AND SECONDARY.	—	—	—	—	7	—	—	—
* (a) <i>Dementia senilis</i>	—	—	—	—	—	—	—	—
(I) <i>Melancholia with dementia</i>	—	—	—	—	9	15	15	24
(II) <i>Mania with dementia</i>	3	—	—	—	5	—	—	—
(III) <i>Simple dementia</i>	—	—	—	—	5	—	—	—
(b) <i>Dementia paralytica</i>	6	—	—	—	14	—	—	—
(I) Juvenile	—	—	—	—	—	9	9	23
(II) Ordinary	1	—	—	—	1	—	—	—
(III) Senile	11	—	—	—	20	—	—	—
(3) SPECIAL VARIETIES OF DEMENTIA.	2	—	—	—	2	—	—	—
† (a) <i>Dementia following sense-deprivation</i>	6	—	—	—	10	4	4	10
(b) <i>Dementia following epilepsy</i>	12	—	—	—	20	8	8	20
(c) <i>Dementia following cerebral lesions</i>	—	—	—	—	3	5	5	8
(I) Cerebral syphilis	2	—	—	—	—	—	—	—
(II) Other lesions (gross)	—	—	—	—	—	—	—	—
(A) Old standing (embolism, etc.)	1	—	—	—	2	3	3	—
(B) From vascular degeneration	—	—	—	—	3	—	—	—
Total dementia	198	247	445	198	445	247	445	445
Grand total.	304	424	728	304	728	424	728	728

* The delusional types of senile dementia come under sub-division (1) (a).

† A distinct class from amentia of deprivation.

the mental states were taken personally by the writer on a constant system, and the personal equation may thus be considered constant. The cases are grouped on the clinico-pathological lines above indicated, and the author's clinico-pathological experience of over 1000 cases of mental disease at the London County Asylum, Claybury, and the Pathological Laboratory of the London County Asylums, justifies him in thinking that relatively few of the 728 cases are wrongly classified.

As Part I only of the paper will be included in the present instalment, a general classification of the cases to be referred to at length in Parts II and III will be found on pp. 280 and 281.

A full discussion of this table, including illustrative examples of the different types referred to, will appear in Parts II and III of the present paper.

PART I.

The present division of this paper deals with the morbid anatomy of dementia on similar lines to those adopted in a previous contribution. By a comparison of the mental conditions of the patients with the naked-eye morbid appearances found within the skull-cap at the *post-mortem* examinations, it was demonstrated that the latter vary in degree with the amount of dementia, and are otherwise independent of the duration of the mental disease. It was further shown that the severer grades of dementia are associated with a much more extreme degree of vascular degeneration than occurs in non-demented or less severely demented lunatics of the same age, and that the latter is the cause of the former. "In a cerebrum which has begun to break down, or where degeneration has passed to the 'moderate' stage (Group III), the presence or incidence of gross vascular degeneration will cause rapid progress of the neuronc degeneration with gross dementia."

To the 200 cases previously analysed a further 233 are here added, making a total of 433, and throughout the present contribution Series A refers to the earlier 200, and Series B to the present 233. The latter is selected from a later consecutive series of 311 *post-mortems*, of which the following is an analysis:—

	Males.	Females.	Total.
Dementia paralytica	44	18	62
Special	8	8	16
Classified	83	150	233
	135	176	311

The special cases, namely unusual gross lesions, tumours, etc., are excluded, and the cases of dementia paralytica (general paralysis of the insane), will not be made use of as the subject was exhaustively treated in a previous paper.

The remaining 233 cases will be classified into the five groups previously made use of, namely (1) cases without dementia ; (2) cases with appreciable dementia ; (3) cases of insanity with moderate dementia ; (4) cases of dementia which still show symptoms of insanity, and (5) cases of gross dementia. These groups agree remarkably closely with the following five classes, based on morbid appearances: (1) Cases without morbid changes and where the pia-arachnoid strips naturally ; (2) cases with slight morbid changes and where the pia-arachnoid strips rather more readily than natural ; (3) cases with moderate morbid changes, with subdural excess to the level of the tentorium and where the pia-arachnoid strips readily ; (4) cases with marked morbid changes and where the pia-arachnoid strips very readily, and (5) cases with very marked morbid changes, and where the pia-arachnoid strips like a glove from the hemisphere.

Further reference to details of morbid anatomy and to the manner in which intra-cranial morbid changes are in certain cases modified by such general diseases as are the cause of death will be made later in the paper. It may, however, be noted here that the difference between Groups I and II is not very marked, that both these differ considerably from Group III, and that this differs even more from the again similar Groups IV and V.

Groups I and II contain the majority of the cases of amentia, though several scattered cases with senile or presenile involution of the cerebrum occur in the later groups. Group III is composed largely of cases of the dementias of maturity and pre-maturity (*dementia præcox*), but contains many senile

and pre-senile cases which, had they lived, would have passed into Groups IV and V. Finally, Groups IV and V contain cases of advanced involution of the cerebrum of either a primary nature or due to the primary factors referred to earlier under the second group of causes of mental confusion.

The cases to be referred to are as follows :—

	Series A.	Series B.	Total.
Group I. No dementia	33	32	65
Group II. Appreciable dementia	52	44	96
Group III. Insanity with moderate dementia	51	50	101
Group IV. Severe dementia with symptoms of insanity	37	55	92
Group V. Gross dementia	27	52	79
Total	200	233	433

It will be noted that Series B contains a much larger proportion of cases in Groups IV and V than Series A, and that the numbers of cases in each group are more alike in the total of 433 than in either of the two series.

GROUP I.

The cases in this group are as follows:

	Series A.	Series B.	Total.
(1) Various and recent cases	5	6	11
(2) Recurrent insanity without dementia	4	8	12
(3) Excited and "moral" cases:			
(a) Hysteria	3	1	24
(b) Excited cases	5	3	
(c) Excited cases with delusions	8	4	
(4) Epileptics, imbeciles, and idiots	8	10	18
Total	33	32	65

Though the cases contained in this group are obtained on a pathological basis, the clinical divisions into which they so readily fall bear the semblance of a scientific classification, and at once show that the group is composed of cases which are by

the author classified under the heading "amentia." As was shown in a previous paper, where selected cases were examined histologically by the micrometric method, the essential common feature of this group (except in certain "sane" or quite recent cases in Class 1), is an incomplete development of the pyramidal or superficial cell layer of the cortex cerebri, and not the retrogressive change which occurs in dementia. The author hence considered it necessary to extend the field occupied by cases of mental disease due to defective development (idiots and imbeciles) and considered the term "amentia," as defined earlier, a suitable one for the purpose.

A comparison of the cases in Series A and Series B also shows a much closer resemblance than might have been expected when it is remembered that the two series are drawn from consecutive *post mortems*, as at different periods so many factors cause modifications both in the general death-rate and in the special types of cases which succumb to prevailing fatal diseases.

Series B. Group I. Class 1.

Various and Recent.

Of the six cases in this class, the first, a young girl with simple melancholia and tuberculosis of the lungs, died two months after admission, and the second and third were examples of puerperal mania who died after seven days and seven months respectively. The fourth was a case of mental confusion (alcohol) who died in eighteen days; the fifth was a case of mental confusion, dying in 13 days with otitis media, meningitis, and cerebellar abscess; and the sixth was a man *æt.* 57, with mental confusion, restlessness, and a syphilitic stricture of the *œsophagus*, who died after eight days' residence.

Series B. Group I. Class 2.

Recurrent Insanity without Dementia.

This class contains eight recurrent cases of various types, and as has been shown elsewhere, cases of this variety constitute probably the very highest grade of amentia. The attacks are due to functional instability, and not to neuronie degeneration, and the patients during their lucid intervals are perfectly sane

and at times of above average intelligence. They are merely unable to withstand the strain caused by the normal environment of sane individuals.

Great variation exists in the brain-weights of these cases. Of the four females, the brain of No. 8 weighs 975 grammes only, whilst that of No. 10 weighs 1500 grammes (average female normal, 1275); and of the four males, No. 13 weighs only 1220 grammes, whilst Nos. 11, 12, and 14 vary from 1527 to 1600 grammes (average male normal, 1400). It is desirable here to note that the author has already amply demonstrated that no relationship whatever exists between the depth of the cortex cerebri and the brain-weight, and that the former is the only important criterion of the functional value of the organ. Such marked variation in the brain-weights of the cases in this class is, however, useful evidence in favour of abnormal development of the cerebrum when considered in association with the general results of micrometric examination of the cortex cerebri of such cases.

Cases 10, 13, and 14 are inserted as examples of the different types included in the group.

CASE 10.—Admitted March 8th, 1897; died March 1st, 1902. Female, æt. 45; single; cousin insane.

History.—Six previous attacks, the first at the age of 21 years. “Excited, noisy, and troublesome; chatters continuously, uses very foul language, and has vague delusions about a blind doctor.”

Course.—Soon began to work, but was excitable, unstable, noisy, and foul-mouthed. At times was quarrelsome and impulsive, at others was dull and reticent, and at others worked.

Dura and S.D.: natural; no excess. Pia-arachnoid: very œdematous, and strips like a glove owing to œdema. S.A.: no excess. Vents., Lat.: natural. IV: a few granulations in lateral sacs. Vessels: natural. Slight decrease in size of prefrontal convolutions, chiefly developmental. Encephalon: 1500 grammes. Right hemisphere, unstripped: 645; left hemisphere, unstripped: 678. Right hemisphere, stripped: 612; left hemisphere, stripped: 637.

Cause of death.—Left lobar pneumonia.

CASE 13.—Admitted March 6th, 1901; died March 8th, 1902. Male æt. 26, single; aunt insane.

History.—Had chorea at the age of 13 years. Was always very dull. First attack at the age of 15 years, and has done no work for six years. Strayed from home twice eighteen months before admission, and was each time lost for several days. “Depressed, sullen, restless; stares wildly about; obstinate, violent, cunning; a pronounced masturbator.”

Course.—Rapidly brightened up and worked well for months; then became dull and depressed and lost flesh (*cf.* p. 336).

Dura and S.D.: natural; slight excess of fluid. Pia: very oedematous and congested, but otherwise natural, and strips rather more readily than natural. S.A.: no excess. Vents., Lat. and IV, and Vessels: natural. The brain is oedematous. and the prefrontal gyri are small. Encephalon: 1220 grammes. Right hemisphere, unstripped: 530; left hemisphere, unstripped: 530. Left hemisphere, stripped: 520.
Cause of death.—Acute tuberculosis of lungs.

CASE 14.—Admitted December 11th, 1894; died January 17th, 1903. Male, æt. 56, single. No family history.

History.—Previous attack in 1892. Present certificate dated 1893. "Dull and melancholic; says he is pursued and hunted down by a number of men whose voices he hears wherever he is, but whose names he cannot remember."

Course.—Developed ideas of grandeur concerning the possession of property in various counties. Frequently talked to himself. Then he became quiet and well-behaved, but later developed delusions of persecution by electricity and was somewhat aggressive. Developed severe morbus cordis and became dull and depressed, and continued to suffer from auditory hallucinations.

Dura and S.D.: natural; no excess. Pia: natural; strips naturally. S.A.: no excess. Vents., Lat. and IV, and Vessels: natural. Brain: natural, 1600 grammes. Right hemisphere, unstripped: 695; left hemisphere, unstripped: 700. Left hemisphere, stripped: 685.

Cause of death.—Cardiac failure, morbus cordis, and renal cirrhosis.

Series B. Group I. Class 3.

Cases of an Excited or "Moral" Type.

Of the eight cases in this class, seven are women, and five of these are unmarried. The other case, No. 15, is a male, æt. 29, whose mental condition, one of religious exaltation with periods of trance, much resembled "catatonia," as [do so many marked cases of hysteria. As full reference will be made to the cases under this class in Part II of the present paper, further remarks here are unnecessary.

Sub-class (a) Hysteria.

In the present series of cases, only one, a male, falls under this category, whereas in Series A there were three females.

CASE 15.—Admitted March 12th, 1900; died March 29th, 1902. Male æt. 29, single. Father insane.

History.—Has done no work for two years, but has been worse for seven months. "Spends his time gazing into vacancy and laughing and

muttering to himself. Notices neither surroundings nor neighbours. Does no work, as he takes his directions from the Bible, and does not go to church because he is talked about and his 'absence preferred.' Refuses food."

Course.—In a condition of religious exaltation. Holds communion with God and the dead. Looks as if in a trance. Was fed for months with a tube. Gradually became profoundly depressed and lost flesh rapidly (*cf.* p. 336).

Dura and S.D.: natural; no excess. Pia: natural. The brain is so softened that stripping is almost impossible, but it is natural throughout excepting for œdema. S.A.: no excess. Vents., Lat. and IV, and Vessels: natural. Brain œdematous, 1350 grammes. Right hemisphere, unstripped: 555; left hemisphere, unstripped: 555.

Cause of death.—Acute tuberculosis of the lungs, tuberculous pneumonia and gangrene of the lung.

Sub-class (b) "Excited" Cases.

This sub-class contains three unmarried females, all of whom possessed brains much below the average weight. They were all chronic maniacs who were subject to severe relapses alternating with "sane" intervals.

CASE 16.—Admitted December 21st, 1894. Died September 27th, 1902. Female, æt. 42, single. No family history.

History.—"Very excitable. Undresses herself in the grounds. At times refuses her food and says it is poisoned. Thinks she is coming into a fortune. Tried to commit suicide by holding her head under the cold water tap. Laughs and talks to herself and makes very funny noises."

Course.—A chronic maniac with severe relapses and recoveries. In the former she is excitable, restless, and impulsive, and has auditory hallucinations. In the latter she is quiet and industrious. Frequently washes herself, as she thinks her clothes are infested with vermin. Finally became paraplegic from Pott's disease.

Dura and S.D.: natural; slight excess. Pia: slight fronto-parietal milkiness; little or no thickening; strips rather more readily than natural. S.A.: no excess. Vents., Lat. and IV, and Vessels: natural. Slight fronto-parietal rounding of convolutions; little or no wasting. Encephalon: 1145 grammes. Right hemisphere, unstripped: 490; left hemisphere, unstripped: 490; left hemisphere, stripped: 480.

Cause of death.—Chronic tuberculosis of lungs, large intestine, and vertebral column, with involvement of the cord.

CASE 17.—Admitted May 29th, 1896; died December 27th, 1902. Female, æt. 25, single. No heredity of insanity, but marked stigmata of degeneracy.

History.—"Dull and depressed. Cries when spoken to. Says that impulses come over her so that she does not know what she does.

Screams, shouts, and disturbs the whole place. Lies on the floor and kicks at everything."

Course.—Was in eighteen wards during her residence in the asylum. Excited, unreasonable, restless, troublesome. Required firm treatment. On different occasions recovered and relapsed, smashing, and requiring seclusion.

Dura and S.D.: natural, no excess. Pia: natural, strips naturally. S.A.: no excess. Vents., Lat and IV, and Vessels: natural. Brain simply convoluted, 1035 grammes. Hemispheres of equal weight; unstripped: 440; stripped: 425.

Cause of death.—Cardiac failure; hæmatoporphyriaemia.

Sub-class (c) "Excited" Cases with Delusions.

Of the four females in this sub-class, two were married. The brains of three were much below the average weight, varying from 1155 to 1180 grammes, and that of the other was much above, weighing 1385 grammes. This last case, No. 22, was an unmarried female, æt. 29, with a heredity of insanity and phthisis, who was depressed and taciturn and suffered from sexual delusions.

CASE 20.—Admitted March 23rd, 1895; died May 8th, 1902. Female, æt. 33, married. No family history.

History.—"Says the devil is burning her with red-hot poker, that a voice told her her mother was Bishop Cranmer's wife. Thinks her food is poisoned."

Course.—Excited, restless and fidgety, and wild in appearance. At times recovers, becomes very tidy and works; at others is noisy and violent, and suffers from sexual and persecutory delusions, with auditory hallucinations.

Dura and S.D.: natural; slight excess. Pia: natural; strips naturally. S.A.: no excess. Vents., Lat.: natural. IV.: a few small granulations in the lateral sacs. Vessels: natural. Slight underdevelopment of the prefrontal region. Encephalon, 1155 grammes. Right hemisphere, unstripped: 495; left hemisphere, unstripped: 495; right hemisphere, stripped: 490; left hemisphere, stripped: 485.

Cause of death.—Recent tuberculosis of the lungs; chronic dysentery.

Series B. Group I. Class (4).

Epileptics, Imbeciles, and Idiots.

Of the ten cases in this class, three are examples of epileptic insanity without dementia, and of these one, a male æt. 35, was so unstable, violent and dangerous as to require constant treatment by sedatives, though in his lucid intervals he was well-

behaved and good-natured. His family were very neurotic. The fits began in these cases between the ages of 21 and 27 years. Of the remaining seven cases, four were imbeciles, one was an imbecile with epilepsy, and two were idiots. The brain-weights of these cases, as they were all of naked-eye normal appearance except in some instances for œdema, afford a striking illustration of the remarks made on page 286. Of the three cases of epileptic insanity the weights of the female encephala were 1220 and 1005 grammes, and of the male 1473 grammes, the former being below and the latter above the average normal. The average weight of those of the four male imbeciles was 1286 grammes, that of the male epileptic imbecile was 1143 grammes, and those of the male and female idiots were respectively 1407 and 1110 grammes.

The following examples, Nos. 26 and 32, are inserted for illustrative purposes, the former being a male idiot and the latter a male imbecile :

CASE 26.—Admitted October 27th, 1900; died February 5th, 1902. Male, æt. 17, single. No family history.

History.—Hurried instrumental labour. In asylums since six years of age. Had a fit at the age of eight years. "Rapid movements of eyes. Bit his hands when in a passion. No appreciation of environment. Does not speak. Cannot attend to himself in any way. Sometimes restless and violent."

Course.—Gibbers and makes grimaces in answer to questions. Strikes grotesque attitudes. Salivates. Regurgitates food and then eats it again. Impulsive. Unable to attend to himself. Habits defective. Gradually lost flesh and died almost a skeleton.

Dura and S.D.: natural; slight excess. Pia: œdematous; a little fronto-parietal milkiness; difficult to strip owing to the extreme œdema of brain and membrane. S.A.: no excess. Vents., Lat.: dilated; endyma very œdematous. IV.: a few granulations in lateral sacs. Vessels: natural. The brain appears normal apart from œdema, 1407 grammes. Right hemisphere, unstripped: 597; left hemisphere, unstripped: 597; right hemisphere, stripped: 565.

Cause of death.—Tuberculous pneumonia.

CASE 32.—Admitted August 17th, 1896; died April 1st, 1903. Male, æt. 30, single. No family history.

History.—Certified since May, 1895. "Imbecile in manner, speech, and behaviour. Talks to no one, and usually answers questions with a threat. Unoccupied, restless, sleepless. Masturbates. Dangerous."

Course.—Of low intelligence. Says he has never been able to get on as he cannot keep more than one idea in his head at a time. Neglectful of himself. Grins inanely. Memory very deficient. Noisy, restless,

and often aggressive. Quite idle. Finally, quite uninterested in his surroundings, and wet and dirty (*cf.* p. 336).

Dura and S.D.: natural. Slight excess. Pia: natural. Strips naturally. S.A.: no excess. Vents., Lat.: natural. IV.: granulations in lateral sacs. Vessels: natural. Pre-frontal gyri small and poorly developed. Encephalon 1375 grammes. Right hemisphere, unstripped: 595; left hemisphere, unstripped: 600; left hemisphere, stripped: 585.

Cause of death.—Acute tuberculosis of lungs, small intestine, and mesenteric glands.

The Heredity of Insanity in Group I.

Of the thirty-two cases in this group family histories were available in eighteen. Of these a psychopathic history existed in twelve, or *66 per cent.* It is noteworthy that of the five histories available in Class 4 (epileptics, imbeciles, and idiots), in four an hereditary taint existed, and in the case of the fifth (epileptic insanity) the grandfather suffered from paralysis and the maternal grandmother had two fits of “apoplexy.”

GROUP II.

The cases in this group are as follows :

	Series A.	Series B.	Total.
(1) Various	2	4	6
(2) Adults with mental confusion . . .	9	3	12
(3) Seniles:			
(a) Recent senile cases	7	4	13
(b) Recurrent senile cases	10	3	
(c) Chronic senile cases	7	6	
(4) Chronic and recurrent maniacal adults .	3	4	7
(5) Chronic delusional adults	8	11	19
(6) Epileptics	6	9	15
Total	52	44	96

In this group, as in the last, the subdivisions bear the semblance of a scientific classification and, on comparison with the classification of mental diseases given in the introduction, it will be seen that, except as regards classes 1 and 2, class 3 (a) and part of class 6, the cases as a whole come under the category of amentia. Further evidence on this point will be brought forward later in the general summary of morbid appearances,

when Groups I and II are generally compared with Groups III, IV, and V.

On comparison of Series A and Series B it will be seen that as in Group I, so in the present group, the types are the same, and even the proportions are similar, a fact which shows that the number of cases made use of is amply sufficient for the purpose.

Series B. Group II. Class 1.

Various.

This class includes cases of acute delirium of 8 days' and of acute mania of 17 days' residence respectively; a case of cerebral hæmorrhage after 3 months' residence; and a case of resistive melancholia, which died of tuberculosis after a residence of 9 months. The latter two are selected as examples.

CASE 33.—Admitted March 14th, 1902. Died June 6th, 1902. Female. æt. 52 years. Widow. Fits and paralysis on father's side.

History.—Symptoms for two years. "Memory very weak. Delusions as to where she is and how long she has been here. Rambles incoherently about her family and constantly contradicts herself."

Course.—Dull and confused. Garrulous. Gives an incoherent account of her past life. Speech slurred. Clean in habits. Fell from a chair seriously ill, and died in four days.

Dura and S.D. : natural; no excess. Pia : slightly thickened; strips rather more readily than natural. S.A. : no excess. Vents, Lat. : slightly dilated. IV : natural. Vessels : extremely atheromatous, even to the smallest vessels. No visible wasting of the cerebrum, 1424 grammes. Right hemisphere, unstripped, 614. Left hemisphere, unstripped : 610. Left hemisphere, stripped : 580. In the right hemisphere at the commencement of the Sylvian fissure is a softening due to a moderately recent hæmorrhage affecting the lower and outer part of the orbital surface of the frontal lobe. Further backwards a small older hæmorrhage has occurred into the outer and lower corner of the lenticular nucleus. Just behind the latter is another old hæmorrhage lying between the cortex and white matter at the bottom of the parallel sulcus. Still further back is a relatively large recent hæmorrhage in the posterior part of the optic thalamus.

Cause of death.—Cerebral hæmorrhage. Systemic vascular degeneration and cardiac hypertrophy.

CASE 35.—Admitted August 9th, 1901. Died May 29th, 1902. Male, æt. 34 years, single. No family history.

History.—Previous attack six years ago. "Was standing with his face to the wall and either only muttered or did not answer questions

at all. Looks vacantly around him. Very silent and vacant. Often stops for hours with his head under the sheet."

Course.—When spoken to covers his face with his hands and mutters incompleted sentences. Takes no notice of his surroundings and wanders aimlessly about. Extremely resistive to everything done for him. Usually requires tube feeding. At times wet and dirty. At one time gained several pounds in weight under tube feeding, but later rapidly became emaciated (*cf.* p. 336).

Dura and S.D. : natural ; moderate excess. Pia : very oedematous. Strips rather more readily than natural. S.A. : slight excess. Vents., Lat. : slightly dilated. IV : oedematous. Vessels : slightly thickened. Prefrontal gyri smaller than normal. Encephalon : 1395 grammes. Right hemisphere, unstripped : 588. Left hemisphere, unstripped : 565.

Cause of death.—Tuberculosis of lungs and intestines.

Series B. Group II. Class 2.

Adults with Mental Confusion.

This class includes three cases of "mental confusion," with a residence in the asylum of days, months, and years respectively. All the cases had a history of alcoholic excess, but all were above the average age of 57 years, and two suffered from degeneration of the cerebral vessels. All three cases are summarised below.

CASE 37.—Admitted May 12th, 1902. Died May 23rd, 1902. Female, æt. 57 years, married. No family history.

History.—History of alcoholic excess. "Totally unconscious of her surroundings. Keeps continually muttering to herself, and fails to understand any questions put to her. Has been shouting and raving continually. Difficult to keep in bed, and filthy in her habits."

Course.—Intensely confused. Mutters incoherently. Very sensitive to touch. Paraplegic. Sore throat and bleeding gums. Septic rash.

Dura and S.D. : natural ; marked excess. Pia : thickened and slightly milky. Strips rather more readily than natural. S.A. : slight excess. Vents., Lat. : natural or slightly dilated. IV : natural. Vessels : moderate atheroma. Small prefrontal region. Moderate fronto-parietal wasting. Encephalon : 1060 grammes. Right hemisphere, unstripped : 447. Left hemisphere, unstripped : 440. Left hemisphere, stripped : 415.

Cause of death.—Purulent bronchitis.

CASE 38.—Admitted June 21st, 1902. Died March 2nd, 1903. Male, æt. 61, married. No heredity of insanity.

History.—History of alcoholic excess. "Tells me he is going to the devil at two o'clock to-day. Hears the devil calling him, and says he has been after him for six months. Says people are trying to kill him."

Course.—Very miserable, as he has committed every possible sin.

Sees the devil flitting to and fro and waiting for him. Slowly improved and became brighter, but was still apathetic.

Dura and S.D. : congested. No excess. Pia : some œdema. Slight fronto-parietal milkiness and thickening. S.A. : considerable excess. Vents., Lat. : natural. IV. : lateral sacs very granular. Vessels : natural. Considerable wasting in the prefrontal region and moderate in the first temporal gyrus and the rest of the fronto-parietal region. Encephalon : 1325 grammes. Right hemisphere, unstripped : 575. Left hemisphere, unstripped : 583. Left hemisphere, stripped : 545.

Cause of death.—Cardiac failure and broncho-pneumonia. Vascular degeneration and early renal cirrhosis. Probable systemic syphilis.

CASE 39.—Admitted March 18th, 1895. Died April 10th, 1903. Male, æt. 58, married. Mother intemperate.

History.—History of alcoholic excess. Symptoms two years. Several previous attacks. "Violently excited, shouting, screaming, boasting of the number of asylums he has been in, and threatening to commit suicide. Cries, makes faces, etc."

Course.—Noisy, excitable, impulsive, and very garrulous. At times was very depressed and refused food. Continued very unstable, emotional, and restless, and constantly talked to himself. Alternated between excitement and depression till death.

Dura and S.D. : natural ; some excess. Pia ; a little thickening, chiefly in the fronto-parietal region. S.A. : some excess. Vents., Lat. : somewhat dilated. IV. : lateral sacs very granular. Vessels : a little patchy, early atheroma, and some irregular dilatation. Prefrontal gyri small. A little wasting in the first temporal gyrus and in the fronto-parietal region. Small superficial softening on the orbital surfaces of the frontal lobes and on the tips and the under surfaces of both temporo-sphenoidal lobes. Encephalon : 1200 grammes. Right hemisphere, unstripped : 520. Left hemisphere, unstripped : 515. Right hemisphere, stripped : 495.

Cause of death.—Chronic ulcerative dysentery. Vascular degeneration and cerebral softening.

Series B. Group II. Class 3.

This class includes 13 senile cases, which are divided into recent, recurrent, and chronic sub-classes.

Sub-class (a).

Recent Senile Cases.

Of the four senile cases in this sub-class, all appear to be recent ; one died during the acute stage of the attack, two improved and relapsed, and one continued unimproved, all three dying after a residence of months. In all the last three

cases some degeneration of the cerebral vessels existed. In all the cases mental confusion was a prominent feature.

CASE 41.—Admitted October 4th, 1901. Died July 5th, 1902. Female, æt. 73, widow. No heredity of insanity.

History.—Double senile cataract. Fell down the workhouse stairs some time ago and has been light-headed ever since. “Thinks people are constantly following her about. At times quite lost in her mind, not knowing what she is doing. Violent, and throws things about.”

Course.—Resistive and troublesome. Thinks she is persecuted and followed, and suffers from auditory hallucinations. Simple-minded. Became quieter, clean, and tidy. Memory fair. Ideas of suspicion. Then developed illusions of identity, and thought her daughter was dead, and wanted to attend her funeral.

Dura and S.D.: thickened; slight excess. Pia: considerably thickened; little or no milkiness; strips fairly readily. S.A.: slight excess. Vents., Lat.: slightly dilated. IV.: granulations in lateral sacs. Vessels: slightly thickened. Wasting is fairly marked in the prefrontal region, less in the parietal lobules and first temporal gyrus, still less in the motor area, and least in the rest of the cerebrum. Encephalon: 1205 grammes. Right hemisphere, unstripped: 515. Left hemisphere, unstripped: 510. Left hemisphere, stripped: 470.

Cause of death.—Broncho-pneumonia; chronic disseminated tuberculosis of lungs; morbus cordis; empyema of appendix.

Sub-class (b).

Recurrent Senile Cases.

The three cases in this sub-class, although in two instances vascular degeneration exists, differ entirely from the cases in the last category in the general absence of mental confusion and in the fact that such cerebral lesions as are present are of local vascular origin. Nos. 45 and 46 are inserted as types. In the former, mental hebetude followed vascular lesions after recurrences of insanity for thirty years; in the latter a similar result occurred after several years of chronic insanity.

CASE 45.—Admitted February 26th, 1900. Died November 6th, 1901. Female, æt. 75, widow. No family history.

History.—First attack at the age of 45 years. Several during 1893-5. “Rambling and incoherent. Thinks a roof is a green field and that chimney-pots are people walking about. Strange in manner. Sews rags together, etc. Stores rubbish.”

Course.—Cannot give a rational account of her past life. Depressed, visual hallucinations, memory impaired. Talkative. Decorates herself with rubbish. Once for a few weeks was dull and stupid and dirty in habits and then brightened up, but had ceased to care for her personal

appearance. Continued to alternate from depression to excitement and to collect rubbish.

Dura and S.D. : thickened, and adherent to skull-cap on left side ; considerable excess. Pia : a number of scattered recent extravasations of blood ; slight fronto-parietal milkiness ; considerable œdema ; strips fairly readily in fronto-parietal region and naturally elsewhere. S.A. : considerable excess. Vents., Lat. : little or no dilatation. IV. : granulations in lateral sacs. Vessels : dilated, and a little atheromatous. A little local wasting of vascular origin. Encephalon : 1195. Right hemisphere, unstripped : 525. Left hemisphere, unstripped : 515. Right hemisphere, stripped : 495. Left hemisphere, stripped : 485.

Cause of death.—Broncho-pneumonia. Gross vascular degeneration, with secondary morbus cordis.

CASE 46.—Admitted December 11th, 1894. Died November 1st, 1901. Female, æt. 62, widow. No family history.

History.—Previous attack in 1891. “Obstinately silent. Stares vacantly around. Indifferent to her surroundings. Assumes grotesque attitudes. Cannot attend to her own wants. Never well since last attack. Thinks she is to marry the family doctor. At times hears voices.”

Course.—Intense pseudo-hallucinations of hearing. Soon began to work well, and as a rule was pleasant and friendly, but was inclined to be sullen at times. Continued to think that she was to be married to the doctor. During the past two years of her life was quiet and somewhat dull, and worked in the needleroom.

Dura and S.D. : natural ; moderate excess. Pia : little or no thickening ; many blood extravasations on the fronto-parietal region of the left hemisphere, and scattered everywhere over the right hemisphere ; strips rather more readily than natural. S.A. : slight excess. Vents., Lat. : right exceedingly dilated, especially in the posterior half, which is brown and scarred from old-standing softening ; left natural. IV. : a few granulations in the lateral sacs. Vessels : well-marked atheroma. In the hinder part of the right superior parietal lobule is a patch of softening which is not of recent date. Encephalon : 1300 grammes. Right hemisphere, unstripped : 535. Left hemisphere, unstripped : 545. Right hemisphere, stripped : 515. Left hemisphere, stripped : 525.

Cause of death.—Cardiac failure. Acute pleurisy and collapse of left lung. Very gross arterial degeneration.

Sub-class (c).

Chronic Senile Cases.

This sub-class contains six chronic lunatics with very little dementia. It is noteworthy that all are considerably above the average age of 57 years, and that only one, æt. 70, exhibits naked-eye degeneration of the cerebral vessels, and in this case it is slight. These cases showed a general absence of mental confusion and very little dementia, and the normal

condition of the cerebral vessels is noteworthy in this connection. In two cases the brains are very large, a male weighing 1645 grammes and a female 1480 grammes, and in two they are small, weighing only 1100 grammes each.

CASE 49.—Admitted April 9th, 1896; died January 6th, 1903. Female, æt. 67, widow. No family history.

History.—“Expression dreadfully depressed. Continually groans and cries. Sleepless, and says ‘They are all lost,’ and wrings her hands. Wants to be killed. Refuses food.”

Course.—Restless, depressed, moans “Oh, dear!” Thinks people are against her. Wanders about. Very apprehensive. Tries to strangle herself. Has auditory hallucinations. Destructive, and knocks herself about a good deal. Frequently defective in habits.

Dura and S.D.: natural; slight excess. Pia: considerable œdema; moderate thickening; slight fronto-parietal milkiness. S.A.: slight excess. Vents., Lat.: slightly dilated. IV.: natural. Vessels: natural. Wasting obscured by œdema. It is present in the fronto-parietal, but most marked in the pre-frontal region. Encephalon: 1095 grammes. Hemispheres, unstripped: 470, equal. Left hemisphere, stripped: 453.

Cause of death.—Tuberculosis of the lungs.

CASE 51.—Admitted November 4th, 1893; died November 14th, 1901. Female, æt. 67. No family history.

History.—Certified since January, 1888. “Thinks certain people introduce substances or gases of a noxious nature into her body, and says that these give out a vile stench and produce fatal effects if inhaled for any length of time. Peculiar in manner. A man came out of the wall of her bedroom and talked to her both day and night. The man finally ‘gassed’ her, and poisoned her whole system.”

Course.—Marked delusions of persecution. People in the street were able to pull her flat down by taking hold of her feet. Quiet and well behaved, but of uncertain temper. Occasionally worked. Then became untidy and resistive, and constantly talked to unseen people. Finally, after an attack of dulness with faulty habits, she brightened up and worked in the needle-room. Was most incoherent, and at intervals became noisy and troublesome.

Dura and S.D.: natural; slight excess. Pia: slightly thickened. Strips readily except at the occipital pole and on the under surface of the temporo-sphenoidal lobe. S.A.: No excess. Vents., Lat.: little or no dilatation. IV.: a few granulations in the lateral sacs. Vessels: natural. Wasting absent. Encephalon 1480 grammes. Right hemisphere, unstripped, 645. Left hemisphere, unstripped, 640. Right hemisphere, stripped, 623. Left hemisphere, stripped, 612.

Cause of death.—Cardiac failure. Organs healthy, but very wasted.

Series B. Group II. Class 4.

Recurrent and chronic maniacal adults.

This class contains four ordinary chronic maniacal female adults. The cerebral vessels were natural and the brains of

two were of normal weight, and of the other two were much below the normal weight. Nos. 54 and 55 are inserted as illustrative examples, the former of the general type of case and the latter to illustrate the influence of tuberculosis.

CASE 54.—Admitted February 26th, 1898; died October 30th, 1902. Female, *æt.* 50, single. Father intemperate and died of paralysis. Mother died of cancer.

History.—Symptoms, two years. “Refuses food. Thinks she is watched and accused of things that she is not guilty of. Is suspicious of being poisoned.”

Course.—Confused and incoherent, and slow in answering questions. Auditory hallucinations. Improved, but later was violent owing to her hallucinations. Then varied from improvement to violence, and constantly complained of ill-usage. Was in thirty-four wards during her residence in the asylum.

Dura and S.D.: natural; large excess. Pia.: much oedema. Very little thickening. Strips rather more readily than natural. S.A.: large excess. Vents., Lat.: little or no dilatation. IV.: a few granulations in the lateral sacs. Vessels: natural. Some general wasting, which is most marked in the pre-frontal region and next in the first temporal gyrus and the parietal lobules. Encephalon 1070 grammes. Hemispheres: 453, equal. Left hemisphere, stripped: 423.

Cause of death.—Exhaustion of acute parotid abscess. Pneumonia.

CASE 55.—Admitted March 30th, 1899. Died December 6th, 1901. Female, *æt.* 47, widow. Paternal cousin suffered from fits.

History.—Symptoms for eight months: “Is raving and talking to imaginary people. Hears voices, and tears up her clothes.”

Course.—Noisy, restless, and resistive. Strips off her clothing, and refuses her food; apprehensive; incoherent; has auditory hallucinations; then became quiet and well-behaved, but solitary in her habits. Finally was dull and stupid, and rarely spoke or occupied herself (*cf.* p. 336).

Dura and S. D.: somewhat opaque; excess. Pia.: little or no opacity; no thickening; strips readily, except lower temporo-sphenoidal region and occipital pole, where it strips naturally. S. A.: no excess. Vents., Lat. and IV, and Vessels: natural. A small amount of generalised wasting. Encephalon: 1165 grammes. Right hemisphere, unstripped: 495. Left hemisphere, unstripped: 490. Right hemisphere, stripped: 482. Left hemisphere, stripped: 477.

Cause of death.—Tuberculosis of the lungs.

Series B. Group II. Class 5.

Chronic Delusional Adults.

This class contains eleven chronic delusional adults. The three males all have brain-weights above the average and normal cerebral vessels. Of the eight females, only one brain

is above the average weight and the other seven are much below. In two the cerebral vessels are degenerated, in one moderately, and in the other severely. The cases as a whole are of the usual types. The following are inserted as illustrative examples :

CASE 62.—Admitted August 3rd, 1894. Died February 20th, 1902. Female, æt. 50, married. Father insane. Mother epileptic.

History.—Previous attack in 1893, and symptoms, following a dog-bite, for two years before this. “Delusions and hallucinations of persecution by electric wires and telephones in her abdomen and connected with her heart. Electricity is flashed in her face. Hears them laughing and talking loudly. Has seen them in a machine which floats like a balloon in the air.”

Course.—Memory good. Auditory hallucinations, and delusions about electric wires and telephones. Denies these in order to get home, but is seen to reply to voices. On trial for a month in 1895. Continued unchanged, but was reticent about her delusions. In 1900 had a right-sided convulsion, after which her memory became somewhat impaired. Permanent paresis of the right arm and leg resulted.

Dura and S. D. : natural ; considerable excess. Pia : some fronto-parietal milkiness ; strips rather more readily than natural in fronto-parietal region, and first temporal gyrus, and almost naturally elsewhere. S. A. : slight excess. Vents., Lat. : somewhat dilated. IV : granulations in lateral sacs. Vessels : moderate atheroma of basilar artery. Encephalon : 1155 grammes : right hemisphere, unstripped : 505 ; left hemisphere, unstripped, 515 ; right hemisphere, stripped : 475 ; left hemisphere, stripped, 485. Considerable fronto-parietal diminution. An old softening in the floor of the left lateral ventricle.

Cause of death.—Hæmorrhage into left pleural cavity from rupture of an aortic aneurism. Recent pericarditis. Old-standing mitral stenosis.

CASE 67.—Admitted October 21st, 1893. Died May 28th, 1903. Male, æt. 59, married. Eldest brother and two cousins insane.

History.—Certified since 1887 and a previous attack fourteen years earlier. “Excited, and thinks that there is a conspiracy against him, to which the relieving officer is a party ; is suspicious, and refuses his food.”

Course.—Exalted, simple-minded, memory fair. Suspicious. Ideas of persecution. Then was quiet and happy, and employed in the mess-room. Rather unstable and eccentric, and better in the asylum than outside. Poisonous fumes are blown into the asylum, and he continually opens windows to let them out. A year before his death he relapsed and was restless and troublesome, and afterwards slowly became more childish.

Dura and S. D. : natural ; some excess. Pia : some fronto-parietal thickening and œdema. S.A. : slight excess. Vents., Lat. : natural. IV. : granulations in the lateral sacs. Vessels : natural. Pre-frontal gyri small. Slight general wasting. Encephalon : 1440 grammes.

Right hemisphere, unstripped: 630. Left hemisphere, unstripped: 625.
Left hemisphere, stripped: 600.

Cause of death.—Right lobar pneumonia and pleural effusion. Morbus cordis.

Series B. Group II. Class 6.

Epileptics.

Of the nine patients in this class, one female and two males were somewhat feeble-minded congenitally, and the remaining three females and three males were ordinary epileptics with relatively little dementia. The vessels are natural in each case and the brains as a whole are of good weight. Three cases, an ordinary epileptic (No. 70), a case stated to be due to trauma (No. 75), and a patient who was congenitally feeble-minded (No. 76), are inserted.

Epileptic Insanity.

CASE 70.—Admitted October 9th, 1897. Died December 9th, 1901. Female, æt. 32, married. Father died insane.

History.—Fits since the age of 21, occurring chiefly during menstruation. "Very nervous and strange. Says a fit brought on by medicine sent her out of her mind. Does not remember where she lived. Thinks she heard her husband's voice when she was downstairs. Restless and noisy and very violent. Thinks she hears and sees her husband. Is incoherent and destructive, and at times refuses her food."

Course.—Confused and dull after fits. Very unstable, and liable to acute mania with auditory hallucinations. Has a few fits each month, and, after a series, becomes excited and restless with delusions of persecution.

Dura and S. D.: natural; no excess; thin recent film, most marked on right vertex. Pia: slightly thickened; strips rather more readily than natural, except on the under surface of the temporo-sphenoidal lobe. S.A.: no excess. Vents., Lat. and IV, and Vessels: natural. Prefrontal gyri small. A small amount of general wasting. Encephalon: 1275 grammes. Right hemisphere, unstripped: 565. Left hemisphere, unstripped: 560. Right hemisphere, stripped: 545. Left hemisphere, stripped: 540.

Cause of death.—Morbus cordis (button-hole mitral). Chronic dysentery, nearly healed.

Epileptic Insanity following Trauma.

CASE 75.—Admitted December 13th, 1900. Died October 16th, 1902. Male, æt. 56, married. Mother suffered from asthma.

History.—Injured the left side of his head by a fall at the age of 21 and since then has been deaf on that side. Later again fell on his head and had fits, which continued until 1888. Previous attacks of insanity in 1893, 1894, and 1899. Present illness began by a series of fourteen

fits, after which he was stuporose for two days, and then so excited as to require removal. "Dazed. Rambling and hesitant in his statements. Says he was driving a cab this morning and had an accident. Has a number of unreasonable dislikes. Violent since admission, and has had a fit."

Course.—Lost, vacant, mental reaction slow. Rubs his hands together. Then in a few weeks became brighter. Had only one fit in the asylum, but at times was very excited.

Dura and S.D. : natural ; some excess. Pia : some thickening in the fronto-parietal region ; strips rather more readily than natural. S.A. : no excess. Vents., Lat. : natural. IV : lateral sacs granular. Vessels : natural. Prefrontal gyri small. Little or no wasting. A few small mouse-eaten softenings on the outer side of the right temporo-sphenoidal lobe and on the orbital surface of the frontal lobes. Encephalon : 1415 grammes. Right hemisphere, unstripped : 625. Left hemisphere, unstripped : 620. Left hemisphere, stripped : 590.

Cause of death.—Cardiac failure ; right pleurisy, with effusion and collapse of lung ; morbus cordis.

Epileptic Insanity in High-grade Amentia.

CASE 76.—Admitted January 25th, 1900. Died February 9th, 1903. Male, æt. 31, single. Maternal uncle died of paralysis. Father intemperate.

History.—Epileptic fits since 6 years of age. Symptoms during the past five years. "Very weak-minded and childish in talk and manner. Bad recent memory. Frequent and violent fits."

Course.—Dazed and confused. Articulates badly. A fit within twenty minutes of admission. At times impulsive. Had frequent and severe fits.

Dura and S.D. : natural ; much excess. Pia : very little thickening ; marked fibrosis of small vessels. S.A. : no excess. Vents., Lat. : moderately dilated. IV : natural. Vessels : natural. Prefrontal gyri small. Encephalon : 1305 grammes. Right hemisphere, unstripped : 570. Left hemisphere, unstripped : 575. Left hemisphere, stripped : 560.

Cause of death.—Acute ulcerative dysentery ; chronic tuberculosis of lungs.

Heredity of Insanity in Group II.

Of the 44 cases included in this group, family histories were available in 20 instances, and of these 10, or 50 *per cent.* exhibited a psychopathic heredity. The only history available in Class 3 (*b*) (recurrent seniles) was positive, and 5 of 8 histories in Class 5 (chronic delusional adults) were positive. On the other hand, the two available histories in Class 2 (primarily toxic confusions), and the one in Class 3 (*a*) (recent seniles) were all negative. Though the number of available cases is small, these results are suggestive, and may be usefully compared

with those already published in the corresponding classes of Series A.

GROUP III.

The cases in this group are as follows :—

	Series A.	Series B.	Total.
(1) Cases beginning, or with first attack, between 16 and 25 years	3	4	7
(2) Cases beginning, or with first attack, between 26 and 40 years	11	15	26
(3) Cases beginning, or with first attack, between 42 and 56 years	13	14	27
(4) Cases beginning, or with first attack, between 57 and 70 years	10	10	20
(5) Cases beginning, or with first attack, after 70 years of age	7	2	9
(6) Epileptics	7	3	10
(7) Cases with age of incidence of attack unknown	—	2	2
Total	51	50	101

The cases in this group are classified according to the age of incidence of the first attack of insanity, as this method, in such a mixed series of moderate demented, appears to be on the whole less open to objection than would have been one founded on an etiological or a clinical basis. In this grouping Class 1. contains chiefly the dementias of prematurity, *i.e.* puberty and adolescence (dementia præcox), Class 2 the dementias of maturity, Class 3 the dementias of presenility (climacteric), and Classes 4 and 5 the dementias of senility. The latter three classes of patients would probably as a whole, had they lived, have rapidly or slowly passed into Groups IV. and V., which groups also include a larger or smaller number of long-standing cases of mental disease which at one time belonged to Group III., Classes 1 and 2.

A comparison of Series A and Series B shows, as in the previous groups, a close similarity in the general incidence of cases in the different classes.

Series B. Group III. Class 1.

Age of Incidence between 16 and 25 Years.

This class contains four cases, of which one appears to have been somewhat feeble-minded congenitally, whilst the others

developed their first attack at the ages of 20-25 years. The cerebral vessels are natural and the brains are of good weight, that of the female weighing 1240 grammes, and those of the males weighing from 1310 to 1495 grammes, in spite of the existence of cerebral wasting. The heaviest brain of the series (No. 80) also showed slight microgyria.

CASE 77.—Admitted August 29th, 1893. Died February 9th, 1902. Female, æt. 41, married. Family excitable and irritable.

History.—Three of seven children died in convulsions, and one had a harelip. Youngest child 11 months old. Previous attack in 1885. "Hears neighbours saying things about her. Says they watch and worry her. Is very excitable, mutters, and is of dirty habits."

Course.—Laughs and mutters to herself and answers questions inconsequently. Became noisy, destructive, obscene, and violent, and required sedatives. At times smashed. Finally was unoccupied, slovenly, silly, and erotic, and masculine in behaviour and appearance. Had a giggling laugh, and a general lack of intelligence and impaired memory.

Dura and S.D.: natural; moderate excess. Pia: considerable œdema; slight fronto-parietal milkiness and some thickening; strips readily throughout. S.A.: little or no excess. Vents., Lat. and IV, and Vessels: natural. Slight prefrontal wasting and relatively little elsewhere; the wasting is probably much obscured by the œdema. Encephalon: 1240 grammes. Right hemisphere, unstripped: 535. Left hemisphere, unstripped: 525. Right hemisphere, stripped: 520. Left hemisphere, stripped: 510.

Cause of death.—Exhaustion and cardiac failure.

CASE 80.—Admitted October 5th, 1901; died January 23rd, 1903. Male, æt. 31, single. No family history.

History.—Previous attack at the age of 20. "Delusion that people are coming to murder him. Fancies that he has taken some foul disease from a water-closet."

Course.—Feeble-minded, restless, irrelevant in his replies to questions; mischievous; masturbates. Does a little work. Finally childish, simple-minded, impulsive, and often noisy.

Dura and S.D.: natural; moderate excess. Pia: slightly thickened; strips readily. S.A.: slight excess. Vents., Lat., IV, and Vessels: natural. Slight microgyria of the middle third of the first and second frontal gyri and of the greater part of the posterior third of the hemispheres. Encephalon: 1495. Right hemisphere, unstripped: 635; left hemisphere, unstripped: 650. Left hemisphere, stripped: 620.

Cause of death.—Dysentery—a severe attack which has disintegrated almost the whole mucous membrane of the large intestine.

Series B. Group III. Class 2.

Age of Incidence between 26 and 39 Years.

This class includes 15 chronic lunatics, of whom 12 are females and 3 are males. Three females and 1 male were

primarily confused cases of alcoholic origin, and the rest were practically all chronic delusional cases with moderate dementia. No less than 11 of the 15 died of tuberculosis, and the variation in the mental condition which occurs during the alternate improvements and relapses in sufferers from this disease are well shown in the examples cited (Nos. 86 and 89). One case with a history of alcoholic excess, No. 92, who died from the secondary results of venereal disease, is also inserted, as such marked vascular degeneration rarely occurs in a patient of 48 years of age unless there is a history of alcoholic excess, syphilis, or both.

Nine females and two males have brains somewhat below the average weight, but, allowing for the wasting which has occurred, it is probable that in only one case, No. 92, was the weight of the brain originally much below the average.

CASE 86.—Admitted February 13th, 1894; died March 31st, 1902. Female æt. 36, single. No family history.

History.—"Says that every person who walks past her affects her stomach in a peculiar manner. Feels electricity passing through her. Hears her friends say all sorts of queer things about her. The voices prevent her from sleeping."

Course.—Improved rapidly during the spring, but in autumn became dull, silent, and depressed; then became incoherent and her memory and perception were much impaired; finally was silent and kept her mouth covered, and was morose and indifferent to her surroundings. Wet and dirty in habits unless constantly supervised (*cf.* p. 336).

Dura and S.D.: natural; moderate excess. Pia: relatively little thickening; strips readily in the fronto-parietal region and rather more readily than natural elsewhere, except at the occipital poles, where it strips naturally. S.A.: slight excess. Vents., Lat.: somewhat dilated; IV: a few granulations in the lateral sacs. Vessels: natural. Wasting most marked in the prefrontal region, and moderate elsewhere, except at the occipital pole, where it is absent. Encephalon: 1210 grammes. Right hemisphere, unstripped: 535; left hemisphere, unstripped: 530. Right hemisphere, stripped: 515; left hemisphere, stripped: 510.

Cause of death.—Tuberculosis of the lungs, left kidney, and other parts.

CASE 89.—Admitted May 21st, 1894; died January 18th, 1902. Female, æt. 48, married. Aunt, brother, and sister insane. Sister phthisis.

History.—Previous attacks in 1882 and 1893-4. "Will not move. Sits motionless. Resists every attempt to move her. Does not speak or answer questions. Refuses food and has to be fed."

Course.—Depressed, heavy, stupid, and resistive. Wet and dirty.

Then became bright, cheerful, clean, tidy, and industrious; then had several relapses. In each was at first sane, and then stuporose, with restless and purposeless movements and defective habits. Was at times very noisy and excited. Finally became quiet and depressed, but was subject to attacks of excitement. She was unoccupied and her memory was impaired (*cf.* p. 336).

Dura and S.D.: natural; moderate excess; thin, transparent film on both vertices. One or two blood-flakes in right anterior fossa. Pia: a few small subpial extravasations on posterior part; much œdema; strips readily except at occipital pole. S.A.: no excess. Vents., Lat.: slightly dilated; IV: a few granulations in the lateral sacs. Vessels: natural. Left hemisphere more simply convoluted than right. Wasting most marked in prefrontal region, and moderate in motor area, first temporal gyrus, and superior parietal lobule. Encephalon: 1205 grammes. Right hemisphere, unstripped: 515; left hemisphere, unstripped: 510. Right hemisphere, stripped: 490; left hemisphere, stripped: 486.

Cause of death.—Chronic tuberculosis of lungs and intestines.

CASE 92.—Admitted September 27th, 1897. Died October 18th, 1901. Female, æt. 48, widow. No family history.

History.—Previous attack from 1893 to 1896. “Talks excitedly, continuously, and rapidly. Will laugh vacantly at nothing at all. Conversation is at times incoherent. Very troublesome and restless. Ravenous. Sometimes wild or violent.”

Course.—Very confused and vacant. Peculiar staring appearance. Sees faces in the dark and used to hear voices. Owns to alcoholic intemperance. Then became wild in behaviour and exposed and abused herself; then was cleaner and worked a little. She later had several relapses, and lastly was noisy, impulsive, excitable, obscene, and of dirty habits. Three weeks before her death she lost the use of her left side.

Dura and S.D.: natural; considerable excess. Pia: slight frontoparietal milkiness and thickening; strips readily in this region, and rather more readily than natural elsewhere. S.A.: slight excess. Vents. Lat.: in the floor of the anterior horn of the left are a number of small superficial softenings; little or no dilatation; right natural. IV.: markedly granular in lateral sacs. Vessels: all extremely calcareous, but especially the cortical arteries. In the left hemisphere the prefrontal and lower midfrontal convolutions are in a condition of chronic wasting, associated with severe degeneration of the middle cerebral artery. The condition is less obvious in the surrounding parts of the hemisphere. In the right hemisphere a softening, not of recent date, exists in the distribution of the lenticulo-striate artery. Encephalon: 1095. Hemispheres, unstripped equal: 470. Right hemisphere, stripped: 450. Left hemisphere, stripped: 448.

Cause of death.—Double pyosalpinx, with rupture of that on the left side. Gross vascular degeneration and renal cirrhosis. Marked hypertrophy of left ventricle.

*Series B. Group III. Class 3.**Age of Incidence between 42 and 56 Years.*

This class includes six male and eight female chronic lunatics with moderate dementia. Four of the cases suffered from delusions, and in the remainder the chief symptom was mental confusion, one of them, No. 103, being a severe example of confusion of alcoholic origin and suffering from peripheral neuritis. The age of the patient and the degeneration of the cerebral vessels which was present made this case a mixed one, and although the patient only resided in the asylum for six weeks it is probable that the disease was of a chronic nature.

The causes of death were numerous and thus differ from those of Class 2. In only one case was the brain-weight below 1100 grammes, and in eight cases there was slight or moderate degeneration of the cerebral vessels. Several of the cases, had they lived, would, on clinical grounds, have become more demented and passed into Groups IV and V.

CASE 99.—Admitted May 22nd, 1894. Died March 5th, 1902. Female, æt. 63, widow. Eldest daughter insane.

History.—Many previous attacks since 1890. "Thinks people follow her about and get on the roof of the house and talk and prevent her from sleeping at night. Sees faces and figures on the ceiling."

Course.—Stupid, vacant, confused. Hallucinations of hearing; then improved, and a year later suddenly relapsed and became the Dowager Duchess of Sutherland and acted the part; then again improved and relapsed several times; finally became dull and semi-stuporose as the physical disease progressed.

Dura and S.D.: natural; much excess. Pia: fronto-parietal opacity and some general thickening; strips readily. S.A.: considerable excess. Vents., Lat.: natural. IV: a few granulations in the lateral sacs. Vessels: moderately atheromatous. Moderate wasting, obscured by œdema, in fronto-parietal region. Encephalon: 1258 grammes. Right hemisphere, unstripped: 545. Left hemisphere, unstripped, 540; right hemisphere, stripped: 514. Left hemisphere, stripped: 510.

Cause of death.—Secondary columnar epithelioma. Primary source in either uterus or vagina.

CASE 103.—Admitted November 8th, 1901; died December 21st, 1901. Female, æt. 58. No heredity of insanity.

History.—Has drunk heavily for six months. "Ideas of time, place and dates are quite confused. Hallucinations of hearing and vision. Rambling and incoherent, and unable to take care of herself."

Course.—Peripheral neuritis. Very tremulous. Vacant, dazed, con-

fused. Auditory and visual hallucinations. Then very restless and could hardly be kept in bed. Dirty in habits. Took food fairly well.

Dura and S.D.: somewhat thickened; marked excess. Pia.: a little generalised milkiness. Strips very readily in fronto-parietal region, and readily elsewhere. S.A.: excess. Vents., Lat.: slightly dilated. IV.: numerous fine granulations in the lateral sacs, and also lying scattered in the upper half of the ventricle. Vessels: moderate basal atheroma. Much wasting in pre-frontal region, considerable in fronto-parietal, slight elsewhere. Encephalon: 1198 grammes. Right hemisphere, unstripped: 515. Left hemisphere, unstripped: 520. Right hemisphere, stripped: 485. Left hemisphere, stripped: 491.

Cause of death.—Pneumonia. Emphysema. Cardiac hypertrophy.

CASE 105.—Admitted June 6th, 1899; died March 26th, 1902. Male, æt. 48, single. Father died insane.

History.—Had gonorrhœa ten years ago. Denies syphilis, but has pigmented scars on legs. “No sense of decency. Dirty in habits. Eats out of refuse pail. Fills his pockets with all kinds of rubbish and steals everything he can get hold of.”

Course.—Foolish and childish and indifferent to his surroundings. Had choreic movements of the head, hands and feet. Then improved, and worked well for a time, but afterwards became vacant, slovenly and dull, with a very impaired memory.

Dura and S.D.: natural; great excess. Pia.: thickened and opaque. Is œdematous and less thickened on the lower temporo-occipital region. Strips very readily. S.A.: considerable excess. Vents., Lat.: dilated and a little granular. Choroid cystic. IV.: natural. Vessels: apparently natural. Right hemisphere: wasting is considerable in prefrontal region; almost as marked in Broca's convolution, the first temporal gyrus, and the inferior parietal lobule; less marked in the rest of the motor area and the superior parietal lobule; least marked in the remainder of the hemisphere, but practically absent at the occipital pole and on the internal temporo-occipital region. Left hemisphere: less marked wasting. Encephalon: 1190 grammes. Right hemisphere, unstripped: 495. Left hemisphere, unstripped: 500. Right hemisphere, stripped: 465. Left hemisphere, stripped: 465.

Cause of death.—Rupture of aneurism of arch of aorta into right bronchus. Systemic syphilis.

Series B. Group III. Class 4.

Age of Incidence between 57 and 70 Years.

This class contains 10 senile cases, of whom 7 are females and 3 are males. The duration of the mental disease varied from 1½ to 9 years. Six of the cases showed naked-eye atheroma of the cerebral vessels, and this was slight in 3, moderate in 2, and severe in 1. The majority of these cases were of a very slow type and would probably have taken years to pass into later groups.

CASE 114.—Admitted November 14th, 1893; died February 20th, 1902. Female, æt. 72, married. Brother insane.

History.—"Dull and stupid-looking. Will not answer a single question. Delusions of following and annoying. Melancholic. Quite unmanageable."

Course.—Sullen, resistive, aggressive. Wants her rights. Has a habit of moving her right hand as if turning a barrel-organ, and of holding the other hand over her face. Now and then clasps her hands and hits the air. Continued unchanged for years, and then had visual hallucinations and frequently brushed away "spirits" with her hand. Continued restless and noisy and kept up the "winding" movements till within a few weeks of her death.

Dura and S.D.: natural; moderate excess. Pia.: moderate fronto-parietal milkiness and considerable general thickening. Strips very readily in the fronto-parietal region and readily elsewhere. S.A.: considerable excess. Vents., Lat.: moderately dilated. IV.: a few faint granulations in the lateral sacs. Vessels: moderate patchy atheroma. Wasting: most marked in pre-frontal region, next in rest of frontal lobe, superior parietal lobule and first temporal gyrus, next in inferior parietal lobule and outer temporal and pre-occipital regions, and least elsewhere. Encephalon: 1195 grammes. Right hemisphere, unstripped: 518. Left hemisphere, unstripped: 510. Right hemisphere, stripped: 493. Left hemisphere, stripped: 490.

Cause of death.—Exhaustion and cardiac failure. Chronic ulceration of ileum, the probable remains of former dysentery. Renal cirrhosis.

Series B. Group III. Class 5.

Cases beginning after the Age of 70 Years.

This class contains two females in whom the attack commenced at the ages of 75 and 84 years respectively. Both cases have a heredity of insanity, and the latter also has a history of alcoholic excess. In both cases the brains, allowing for the wasting, were of good weight, the stripped hemispheres weighing respectively 475 and 500 grammes; and in both there was considerable degeneration of the cerebral arteries. In No. 120, which is inserted below, a local vascular lesion existed.

CASE 120.—Admitted October 28th, 1901. Died May 28th, 1902. Female, æt. 86, widow. Father died insane at the age of 60; mother and son paralysed.

History.—Intemperate. Symptoms twelve months. Fell four weeks ago and partially lost her speech. "Incoherent, garrulous, and noisy. Talks incessantly the most absurd rubbish. Has attempted suicide."

Course.—Confused, repeats her words. Deaf. Often weeps. Improved somewhat, but rarely spoke coherently.

Dura and S.D.: thickened; generally adherent; marked excess;

thin film scattered over the base, especially on the left side. Pia: thickened and opaque in fronto-parietal region; natural elsewhere. Strips readily in the fronto-parietal region and naturally elsewhere. S.A.: some excess. Vents., Lat.: right moderately dilated; left much dilated. IV.: a few granulations in the lateral sacs. Vessels: some atheroma; considerable fibrosis, especially of the smaller vessels. In the left hemisphere is an old softening in the distribution of the postero-inferior branches of the middle cerebral artery. Encephalon: 1170 grammes. Right hemisphere, unstripped: 505. Left hemisphere, unstripped: 475. Right hemisphere, stripped: 475.

Cause of death.—Cardiac failure. Cardio-vascular degeneration. Atrophous emphysema. General fibrosis of viscera.

Series B. Group III. Class 6.

Epileptics.

This class includes 3 epileptics suffering from moderate dementia. Of these 1 was an adult with epileptiform attacks and the other 2 were senile cases with epileptic fits and degeneration of the cerebral vessels. There is a marked contrast in the weights of the brains of the two cases cited.

CASE 122.—Admitted February 27th, 1894. Died February 18th, 1903. Female, æt. 40, married. Mother intemperate.

History.—Intemperate. Convulsion six months ago. "Dull, apathetic, never speaks unless spoken to. Indifferent to surroundings. Memory a blank. Lost to time and place. Cannot attend to his own wants."

Course.—Ideation slow. Memory much impaired. Often wet and at times dirty. Later frequently had epileptiform attacks affecting the right side.

Dura and S.D.: natural; large excess. Pia: some fronto-parietal milkiness and a few blood extravasations. S.A.: slight excess. Vents., Lat.: slightly dilated. IV.: granulations in lateral sacs. Vessels: natural. Prefrontal gyri small; moderate wasting in fronto-parietal region and in first temporal gyrus. Encephalon: 965. Hemispheres, unstripped, equal: 410. Left hemisphere, stripped: 395.

Cause of death.—Tuberculosis of lungs and intestines. Double gonorrhœal pyosalpinx, most marked on the right side. Chronic alcoholism.

CASE 124.—Admitted February 1st, 1898. Died April 30th, 1903. Male, æt. 70, married. No family history.

History.—Fits for ten years. "Frequent epileptic seizures, followed by periods of excitement, and, at times, of great violence. Stupid feeling in his head. No recollection of anything after recovering from attack."

Course.—Marked loss of recent memory. Dull and slow. About eight fits a month, and quite lost and often violent after them.

Dura and S. D. : natural ; some excess ; slight brown punctate film over the whole of the right base, and in the left posterior fossa above the tentorium. Pia : some fronto-parietal thickening. S. A. : slight excess. Vents., Lat. : moderately dilated. IV : a few granulations in lateral sacs. Vessels : extremely atheromatous, with some calcareous deposit throughout. Some general wasting. Encephalon : 1600 grammes. Right hemisphere, unstripped : 718. Left hemisphere, unstripped : 690. Left hemisphere, stripped : 655.

Cause of death.—Lobar pneumonia. Cardio-vascular degeneration. Renal cirrhosis. Systemic syphilis.

Series B. Group III. Class 7.

Cases with Age of Incidence of Attack Unknown.

This class contains two senile recurrent cases in which the date of the first attack of insanity is unknown. The following case is inserted as it is a good example of a recurrent senile case of the type which only slowly develops dementia :

CASE 126.—Admitted March 12th, 1895. Died May 9th, 1902. Female, æt. 64, widow. No family history.

History.—Previous attack. "Says she feels so low-spirited that she would like to destroy herself ; that everyone seems against her ; that whatever she does goes wrong ; that she hears people talking about her."

Course.—Excited and nervous. Hears voices calling her names through telephones ; then became quiet, pleasant, clean, tidy, and industrious, and was sent out on trial ; then again developed recurrent attacks of depression. Was a troublesome patient, and in 23 wards during her residence.

Dura and S. D. : natural ; large excess. Pia : moderate fronto-parietal opacity ; some thickening ; strips readily. S. A. : slight excess. Vents., Lat. : natural. IV : a few small granulations in the lateral sacs. Vessels : moderately atheromatous ; an aneurism as large as a pea on the left vertebral artery. Marked pre-frontal wasting, and considerable in the fronto-parietal region and the first temporal gyrus. Encephalon : 1210. Hemispheres, unstripped, equal : 500. Left hemisphere, stripped : 483.

Cause of death.—Cardiac failure ; morbus cordis ; fatty heart ; atrophous emphysema.

Heredity of Insanity in Group III.

Of the 50 cases contained in this group, family histories were available in 26 instances and these showed a psychopathic heredity in 17, or 65 *per cent.*

GROUP IV.

The cases in this group are as follows :

	Series A.	Series B.	Total.
(1) ? Recent seniles	6	10	16
(2) Chronic seniles	19	37	56
(3) Seniles with convulsions	12	8	20
Total	37	55	92

Of the 55 cases in this group, no less than 47 are above the average age of 57 years. On comparison of Series A and B, as will again be noticed in Group V, the number of chronic senile cases in Series B is greatly in excess of that in Series A.

Series B. Group IV. Class 1.

(?) Recent Seniles.

This class includes 10 cases, of whom 8 are females and 2 are males. In all of these cases the most important clinical feature was mental confusion. Their lengths of residence varied from three weeks to a year, but it is probable that the disease, as shown by the chronic and advanced nature of the morbid appearances found at death, was of longer duration. In 9 cases there was degeneration of the cerebral vessels. The tenth, No. 129, had survived the acute stage of her attack and would, had she lived, have continued to be a quiet, inoffensive dement.

CASE 129.—Admitted February 14th, 1902. Died January 10th, 1903. Female, æt. 72, widow. No family history.

History.—"Memory defective. Depressed. Conversation incoherent and difficult to sustain. Lost to time and place. Dirty and destructive and annoys other patients, and strips herself naked at times."

Course.—Confused. Marked illusions of identity. Has known the A.M.O. and the charge nurse for years. Very happy. Wet in her habits. Became a quiet, inoffensive dement, who was happy and contented, lost to time and place, and of defective habits.

Dura and S.D.: natural; some excess. Pia: slight fronto-parietal milkiness; slight thickening; strips readily. S.A.: some excess. Vents., Lat.: dilated. IV: natural. Vessels: natural. Encapalon:

1170 grammes. Right hemisphere, unstripped: 500. Left hemisphere, unstripped: 485. Left hemisphere, stripped: 458.

Cause of death.—Cardiac failure; pneumonia; gangrene of right foot; morbus cordis and vascular degeneration; left hydronephrosis from calculus.

CASE 132.—Admitted June 11th, 1902. Died July 3rd, 1902. Female, æt. 78, widow. No family history.

History.—“Vacant, lost, and forgetful. Rambles vaguely in talk. Needed tending like an infant; childish. Dirty in habits. Shouts and raves. Restless and noisy. Does not recognise her daughter.”

Course.—Intense motor restlessness. Attention fair. Answers questions readily, but is rambling and incoherent. Easily confused. Memory much impaired. No idea of time and little of place.

Dura and S.D.: Somewhat thickened; large excess. Pia: frontoparietal opacity; considerable general thickening; strips very readily. S.A.: considerable excess. Vents., Lat.: very dilated. IV: natural. Vessels: considerable atheroma and dilatation. Fairly marked general wasting, which is greater in degree in the prefrontal region and less in the lower occipito-temporal. Encephalon: 1055 grammes. Hemispheres, unstripped, equal: 450. Left hemisphere, stripped: 415.

Cause of death.—Cardiac failure; morbus cordis: vascular degeneration and renal cirrhosis.

Series B. Group IV. Class 2.

Chronic Seniles.

This class includes 37 chronic and recurrent senile cases, of whom 22 are females and 15 are males. The chief clinical features were mental confusion, frequently associated with visual and auditory hallucinations, and restlessness, which passed on to dementia of a fairly severe grade. In several cases improvement occurred prior to the final development of severe dementia.

The duration varied from two to twenty years and some cases had suffered from attacks for as long a period as forty years. Of the thirty-seven cases, degeneration of the cerebral vessels existed in twenty-nine.

CASE 156.—Admitted December 20th, 1893. Died January 25th, 1902. Female, æt. 74. No family history.

History.—In several asylums since 1887, and now certified since 1889. “Talks in an excited manner. Uses bad language. Calls me a scoundrel. Says the police and doctors are Fenians.”

Course.—Very lost. Memory much impaired. Does not employ herself; then improved considerably and worked; then again became dull and lost, and again improved and worked; finally became very

lost, with impaired memory. Put scraps of paper into every letter she wrote. Talked to voices. Was at times noisy, and was unemployed.

Dura and S.D. : very adherent in frontal region ; great excess. In the left middle and posterior fossæ above the tentorium and extending halfway up to the vertex is a layer of recent blood-clot weighing 18 grammes. Small puncta exist on the dura all over the left base. The hæmorrhage has occurred from the anterior extremity of a vein passing from the left great anastomotic vein to the lateral sinus. Pia : moderate fronto-parietal milkiness. Considerable thickening. S.A. : Slight excess. Vents, Lat. : somewhat dilated. IV : granulations in the lateral sacs. Vessels : markedly atheromatous. Fairly marked prefrontal wasting ; rather less in motor area, superior parietal lobule and first temporal gyrus, still less in inferior parietal lobule, and slight elsewhere. Encephalon, somewhat simply convoluted : 1215 grammes. Right hemisphere, unstripped : 525. Left hemisphere, unstripped : 515. Right hemisphere, stripped : 498.

Cause of death.—Subdural hæmorrhage ; old pleuro-pericardial adhesions and mediastinal fibrosis ; moderate degeneration, chiefly of larger arteries ; cystic degeneration of kidneys.

CASE 160.—Admitted March 13th, 1895. Died November 27th, 1901. Male, æt. 61, single. No family history.

History.—“Thinks strange people come into his room and take things from him. Does not know where he is.”

Course.—Very noisy, excitable, violent, resistive, and apprehensive. Improved, and became quiet and worked. A year later was dull, partially lost, and a purely mechanical worker. Had vague delusions of persecution. Lastly, was garrulous, incoherent, and noisy day and night, and spent a good deal of time catching imaginary rats and mice.

Dura and S.D. : natural ; marked excess. Brown readily detachable film over left vault and base above the tentorium, and over part of right vault, and in right middle and posterior fossæ above the tentorium. Pia : marked fronto-parietal thickening and opacity, and considerable thickening elsewhere. Strips very readily generally, but readily on under temporo-sphenoidal region, and less readily over occipital pole. S.A. : considerable excess. Vents, Lat. : much dilated. IV : a few granulations in the lateral sacs. Vessels : very atheromatous throughout. Wasting is marked in fronto-parietal region and moderate elsewhere, except at occipital pole. Encephalon : 1580 grammes. Right hemisphere, unstripped : 690. Left hemisphere, unstripped : 685.

Cause of death.—Cardiac failure ; left pleural effusion ; vascular degeneration.

Two of the cases, Nos. 141 and 168, were degenerates who suffered from severe premature dementia, and presented unusual features. Neither was, however, a case of dementia paralytica, though both in many of their symptoms simulated this disease (see *Archives of Neurology*, vol. ii, p. 504).

CASE 141.—Admitted May 11th, 1896. Died January 3rd, 1903. Female, æt. 48, single. Sister died insane. Mother intemperate.

History.—"Dirty in habits. No idea why she is here. Hesitates at questions and laughs. Very violent, and goes to bed in her clothes lest they should be stolen. Cuddles the teapot and will not let anyone else have any tea."

Course.—Heavy, stupid, happy, contented. No idea of time or place. Movements exaggerated when asked to do anything. Speech slow and slurred. Says "yes" to most questions. Gained flesh after admission, and then gradually got weaker and thinner. March, 1900: emotional, lively. Runs about very quickly. Laughs when spoken to. Answers in a very incorrect manner to questions. Says she is twenty-seven years old. Remembers that her sister was at Canehill, and says she is dead and gone. Does not know where she is. Knows the day of the week at once, and when asked the time looks up at the clock and replies. Knows where she has her meals. Is easy to manage and sleeps well. Takes her food well, but has a great craving for fluids. The following record of varying reflexes shows the existence of active cortical degeneration:

Date.	Knee-jerks.		Pupils.								
	R.	L.	Size in faint light.		Accommodation.		Artificial light.		Daylight.		
			R.	L.	R.	L.	R.	L.	R.	L.	
1900.											
March 8th	Normal	Slightly +	3½ mm.	3½ mm.	2½ mm.	2½ mm.	2½ to 2	2½ to 2	No change	2½ to 2	
April 6th	Present	+	3	3	2½	2½	?	?	3 to 2½	3 to 2½	
June 7th	Absent	Absent	4½	4	3+	3	—	—	—	? trace	
July 19th	+	++	3½	4	2	2½	—	—	—	—	
	Occ. P.J.	P.J.									
Oct. 11th	Present	Slight	4	4-	$\frac{2\frac{1}{2}+}{2}$	$\frac{2\frac{1}{2}}{2-}$	—	—	—	—	
Nov. 20th	Just present	++	5	4½	$\frac{3+}{2}$	$\frac{3-}{2}$	Trace	Trace	?	?	

November 20th, 1900.—Slight paresis of right side of face. Paresis of right arm. Some tremor of tongue. A drawl in speaking, which might be that of imbecility or G.P.I. Happy and smiling. Very childish.

August 3rd, 1902.—"Lost; very deaf; at times destructive. Habits clean. Pupils equal and react."

Dura and S.D.: natural; considerable excess. Pia: moderate fronto-parietal opacity; considerable thickening. S.A.: much intrarachnoid fluid in fronto-parietal region. Vents., Lat.: moderately dilated, not granular. IV.: many granulations in lateral sacs, more elsewhere. Vessels: natural. Wasting marked in prefrontal region, considerable in first temporal gyrus, parietal lobules, and Broca's gyrus, rather less in rest of motor area, slight elsewhere. Encephalon: 1350 grammes. Hemispheres, unstripped equal: 590. Left hemisphere, stripped: 550.

Cause of death.—Asthenia from scirrhous of pylorus.

[*Note.*]—This case may be usefully compared with Case 19 reported in the *Archives of Neurology*, vol. ii, pp. 603–5, and referred to also on page 504.

Series B. Group IV. Class 3.

Seniles who suffered from Convulsions.

This class includes 4 male and 4 female patients, all of whom suffered from severe dementia and all but one of whom were above the average age of 57 years. Two were epileptics, one had a very chronic osteo-fibroma of the falx cerebri associated with convulsive attacks, and the remainder suffered from convulsions due to local lesions of vascular origin. The cerebral vessels were grossly degenerated in 6 cases and moderately affected in one.

CASE 178.—Admitted September 5th, 1900. Died October 11th, 1901. Male, æt. 62 years, married. Mother died of phthisis.

History.—Previous attack eleven years ago. Intemperate. Symptoms three to four months. “Thinks his wife is unfaithful. Lost to time. At times quite incoherent. Has threatened to cut his throat and his wife is afraid of him.”

Course.—Quiet, listless, and depressed. Confused. Clean in habits. Nine days before death patient had a slight convulsion affecting the right arm and face and two days later a second, which occurred before he had recovered from the effects of the first.

Dura and S.D.: natural; marked excess. Pia: much fronto-parietal opacity and thickening. Strips very readily, excepting on the under surface of the temporo-sphenoidal lobe and the occipital region, where it strips fairly readily. S.A.: great excess, chiefly as “arachnoid cysts.” Vents., Lat.: dilated. IV.: granulations in the lateral sacs. Vessels: markedly atheromatous. Moderate general wasting, most marked in the prefrontal region. A large area of recent softening in the left middle frontal convolution. Encephalon: 1135 grammes. Right hemisphere, unstripped: 480. Left hemisphere, unstripped: 500. Right hemisphere, stripped: 440.

Cause of death.—Cerebral softening. Generalised degeneration of smaller arteries, with hypertrophy of the left ventricle.

Heredity of Insanity in Group IV.

Of the 55 cases in this group, family histories were available in 20 instances. Of these 12, or 60 *per cent.*, showed a hereditary history of insanity.

GROUP V.

The cases included in this group are as follows :

	Series A.	Series B.	Total.
(1) (?) Recent seniles	7	8	15
(2) Chronic seniles	17	30	47
(3) Seniles suffering from convulsions, etc.	3	14	17
Total	27	52	79

Of the 52 cases in Series B, all but 3 are above the average age of 57 years. It will be noted that there are many more cases in Classes 2 and 3 in Series B than in Series A. The chief difference, in fact, between the two series of cases lies in the larger number of senile patients in the second.

Series B. Group V. Class I.

(?) *Recent Senile Cases.*

Of the 3 females and 5 males in this class, all were above the average age of 57 years, and in all the cerebral vessels were degenerated, this condition being severe in 7 cases.

CASE 183.—Admitted March 26th, 1902. Died June 16th, 1902. Female, æt. 79 years, widow. No family history.

History.—"Has lost her memory and talks all sorts of rambling nonsense. Pulled the nurse's cap off and said she was told to. Thinks everyone here is her relation and she is going to give everyone money on her departure."

Course.—No interest in her surroundings. Replies to questions in inarticulate monosyllables. Swallows food mechanically and is wet and dirty. Patient became rather brighter in a couple of months, answered questions, and occasionally made remarks.

Dura and S.D.: adherent in frontal region; great excess. Pia: markedly thickened and somewhat opaque; strips like a glove. S.A.: marked excess. Vents., Lat.: very dilated. IV.: natural. Vessels: highly calcareous. Wasting very marked and rather more extreme in the prefrontal region and rather less evident on the inferio-internal aspect of the hemispheres. Encephalon: 970 grammes. Right hemisphere, unstripped: 395. Left hemisphere, unstripped: 420. Left hemisphere, stripped: 385.

Cause of death.—Senile decay; gross generalised vascular degeneration.

*Series B. Group V. Class 2.**Chronic Senile Cases.*

This class includes 22 female and 8 male senile cases of various types, some exhibiting the symptom-complexes associated with the different varieties of high-grade amentia when in a condition of senile involution of the cortical neurones, others being in more or less marked stages of mental confusion associated with coarse or fine lesions of vascular origin, and others, again, being of a mixed type and falling into both these categories.

As will be pointed out later, whilst in many cases *post-mortem* differentiation is difficult or impossible, there is a marked difference in type between the regions of wasting in cases suffering from fairly pure senile involution of the cortical neurones and those in cases in which the dementia is directly due to coarse or fine lesions of vascular origin, or where degeneration of the cerebral vessels has exercised a marked influence on the degree and site of neuronc degeneration. In the latter, as the writer has shown in a previous paper, a stage of mental confusion is coincident with (and the writer thinks he has proved the consequent of) the development of marked degeneration of the cerebral vessels.

Of the 30 cases, the cerebral vessels were slightly affected in 2 cases, moderately in 11, and severely in 17. The duration of the insanity varied from 2 to 35 years, and in one case, No. 204, æt. 64, symptoms had existed during the whole of the life of the patient.

In Part III of the present paper the cases of dementia there referred to will be classified under the two categories above suggested, as the more complete clinical details available have rendered this possible, whereas in the present clinico-pathological summary no such attempt at a scientific classification has been attempted.

Of the cases selected as examples, Nos. 204 and 207 belong to the first category (senile involution in high-grade aments), No. 209 to the second (senile dementia associated with coarse or fine cortical lesions), No. 213 is a compound of the two types, and No. 217 is a case of medium or high-grade amentia with premature senility of the cortical neurones.

Senile Involution in High-grade Aments.

CASE 204.—Admitted November 25th, 1899; died February 21st, 1902. Female, æt. 64, single. Heredity of epilepsy.

History.—"Very nervous" 30 years ago. Symptoms all her life, but especially since the age of 54. "Rambling and irrational. Excitable. Confused."

Course.—Excitable; garrulous; quite incoherent; continually repeats that she has two lovely sisters in heaven. Wanders about in a lost and aimless manner. No idea of time or place. Finally quite lost, dirty in habits, and very feeble and shaky.

Dura and S.D.: natural; moderate excess. Pia: much thickened; little or no opacity; strips very readily. S.A.: considerable excess. Vents., Lat.: considerably dilated. IV.: natural. Vessels: all very atheromatous. Marked general wasting, which is extreme in the prefrontal region and least visible in the lower temporo-occipital region. Encephalon: 1275 grammes. Right, hemisphere, unstripped: 555. Left hemisphere, unstripped: 545. Right hemisphere, stripped: 510. Left hemisphere, stripped: 508.

Cause of death.—Broncho-pneumonia; systemic vascular degeneration and secondary cardiac hypertrophy.

CASE 207.—Admitted April 23rd, 1895; died January 22nd, 1902. Female, æt. 75, widow. Mother and grand-daughter insane.

History.—Symptoms for twenty years. "Lies huddled up in bed. Very confused and strange in manner. Difficult to get her to answer questions, but she says people worry her at night and look in at the window. Simple and often incoherent. Says she sees carriages and well-dressed women and also figures and cats in the room. Strange for some time. Got up at night and wrapped the bed-clothes round her. Used to undress herself naked."

Course.—Restless, confused. Cannot take care of herself. Lost to time and place. Wet and dirty. Continued in this state for years.

Dura and S.D.: adherent in frontal and left parietal regions; great excess. Pia: relatively little opacity; considerable thickening; strips very readily. S.A.: some excess. Vents., Lat.: dilated. A few granulations. IV.: many granulations in the lateral sacs. Vessels: moderately atheromatous. Rather simply convoluted. Marked general and extreme prefrontal wasting. Encephalon: 1010 grammes. Right hemisphere, unstripped: 420. Left hemisphere, unstripped: 432. Right hemisphere, stripped: 395. Left hemisphere, stripped: 413.

Cause of death.—Cardiac failure. Vascular degeneration and renal cirrhosis. Cardiac hypertrophy and dilatation. Lipomatosis.

Senile Dementia associated with Cortical Lesions.

CASE 209.—Admitted February 28th, 1894; died October 30th, 1901. Female, æt. 68, widow. No family history.

History.—"Melancholy, tearful without adequate cause. Rambling, incoherent, and loquacious. Noisy at night. Wants to get out of the window. Difficult to get to take sufficient food."

Course.—Constantly throws herself about and gabbles a conglomeration of words. Says she is 21 years of age. Noisy, dirty, and destructive. Improved considerably, and helped a little and was quiet and obedient; then became restless and excited and stripped herself. Continued excitable, garrulous, and was always asking for her omnibus fare to go home, and saying she could get there for sixpence. Finally was dull, lost to time and place, had illusions of identity, and was wet and dirty.

Dura and S.D.: natural; great excess. Pia: marked fronto-parietal opacity and thickening; moderate thickening elsewhere; strips very readily excepting at the extreme occipital pole, and the lower temporo-sphenoidal region, where it strips readily. S.A.: marked excess. Vents., Lat.: slightly dilated; choroid cystic; a few granulations. IV: granulations in the lateral sacs. Vessels: exceedingly atheromatous throughout. Considerable general wasting. Right hemisphere: Superficial softening in the posterior third of the middle frontal gyrus. Left hemisphere: superficial softenings of the posterior part of first frontal gyrus and of the posterior third of the cuneus and the neighbourhood of the pole, but not involving the lower lip of the calcarine fissure. Encephalon: 1105 grammes. Hemispheres, unstripped, equal: 465. Right hemisphere, stripped: 428. Left hemisphere, stripped: 423.

Cause of death.—Cardiac failure; gross vascular degeneration, especially of the cerebral and coronary arteries.

Senile Involution in a High-grade Ament associated with Cortical Lesions.

CASE 213.—Admitted May 11th, 1899; died March 11th, 1902. Male, æt. 62, married. Father insane.

History.—Intemperate and stated to have had syphilis. Symptoms twenty-five years. "Continually wandering about. Quite incoherent. Cannot give a rational account of himself. Lost."

Course.—Says his age is 7 years. Restless and performs purposeless actions. Would be wet without attention. Became quite lost, and was rambling and incoherent and very slovenly. Continued for some time clean in habits and then was shaky, helpless, and wet and dirty.

Dura and S.D.: slight generalised thickening; great excess. On the left side of the cranium, excluding the median part of the base and vault, is an old organised membrane which is a quarter of an inch thick in its thickest part. The membrane on its inner surface is brown, as is also the subjacent pia and cortex. Pia: prefrontal adhesions in mid-line below the falx, marked fronto-parietal opacity and marked thickening; strips very readily. S.A.: marked excess. Vents., Lat.: much dilated; granular. III: granular. IV.: marked granulations in the lateral sacs. Vessels: markedly thickened and atheromatous. Wasting: extreme in prefrontal region, very marked in Broca's and first temporal gyri, marked in the ascending frontal gyrus the posterior one third of the first and second frontal gyri and the superior parietal lobule, rather less marked elsewhere, and least at the occipital pole. It is also extreme, and here, probably, largely vascular in origin, in the outer aspect of the temporo-sphenoidal lobe and the inferior parietal lobule. Encephalon: 1140

grammes. Right hemisphere, unstripped: 498. Left hemisphere, unstripped: 460. Left hemisphere, stripped: 430.

Cause of death.—Tuberculous pneumonia. Vascular degeneration and secondary morbus cordis; renal cirrhosis.

High-grade Amentia with Premature Senility of the Cortical Neurones.

CASE 217.—Admitted November 24th, 1894; died January 12th, 1903. Male, æt 48, widower. No family history.

History.—Symptoms for thirty-five years. "Simple and childish and cannot remember where he lives. Does not know day, month, or year. Does not work. Eats ravenously."

Course.—Very reticent. Depressed. Takes little interest in his surroundings. Later a working dement who was lost to time and place. Finally became dull and slow and quite lost and had much difficulty in swallowing.

Dura and S.D.: adherent at vertex; great excess over the whole vertex, but especially on the right side; the dura is roughened and there are thin scattered patches of film. There is also a thin film on the falx cerebri, also chiefly on the right side. The pacchionian bodies are very marked, and adherent to the dura over a large area. Pia: very opaque and thickened; many extravasations of blood in the anterior half. S.A.: much excess. Vents., Lat.: considerably dilated. IV.: many granulations in the lateral sacs; none elsewhere. Vessels: some thickening. Wasting: marked in prefrontal region, next in Broca's and first temporal gyri and in the parietal lobules, next in the posterior third of the first and second frontal gyri, next in the rest of the motor area and least elsewhere. Encephalon: 1318 grammes. Right hemisphere, unstripped: 570. Left hemisphere, unstripped: 555. Left hemisphere, stripped: 517.

Cause of death.—Broncho-pneumonia. Epithelioma of the œsophagus involving the trachea.

Series B. Group V. Class 3.

Senile Cases suffering from Convulsions, etc.

This class includes 9 female and 5 male senile cases, all but two of which are above the average age of 57 years. In 13 of the cases degeneration of the cerebral vessels existed, and in 8 of these it was severe.

Of the 9 cases in which lesions of vascular origin existed, in one of these the condition was thrombosis of pial veins due to tumour cerebri and in another it was hæmorrhage into the right internal capsule. Five of the patients were epileptics, and in one of these, No. 230, a local lesion also existed.

Of the illustrative cases cited below, No. 223 is an epileptic, No. 230 is an epileptic with a gross vascular lesion, No. 225 is

an example of a gross vascular lesion, and No. 233 is one of capsular hæmorrhage.

Epileptic.

CASE 223.—Admitted December 16th, 1893. Died April 22nd, 1902. Female, æt. 51, single. No family history.

History.—Previous attack in 1892. Symptoms for one year. “Epileptic, excited, and violent. Memory defective. Does not recognise her friends, and cannot converse.”

Course.—Excited. Memory and ideation fair. Says that after fits she loses herself, and cannot remember anything for some time. Became dull, heavy, and stupid. Was much excited after fits. Frequently quoted and read Scripture. On April 8th, 1902, had 200 fits. Recovered consciousness four days later, but continued very feeble till death.

Dura and S. D.: natural; large excess. Pia: very opaque and thickened; strips like a glove. S. A.: Large excess. Vents., Lat.: natural. IV: granulations in the lateral sacs. Vessels: all markedly atheromatous. Marked general wasting, which is extreme in the prefrontal region. Encephalon: 1145 grammes. Right hemisphere, unstripped: 495. Left hemisphere, unstripped: 485. Right hemisphere, stripped: 455. Left hemisphere, stripped: 445.

Cause of death.—Cardiac failure, following status epilepticus. Hæmorrhage from stomach and bladder. Purpuric patches on skin. Severe degeneration of cerebral arteries.

Epileptic with a Gross Vascular Lesion.

CASE 230.—Admitted February 16th, 1901. Died June 16th, 1902. Male, æt. 73, married. No family history.

History.—Fits for nine years, and has had hundreds. “Thinks something is going to happen to him. Does not, he says, know what he is doing. Has no idea of time. Has been violent.”

Course.—Lost to time and place. Talks irrelevantly and incoherently. Six months after admission he had three fits, confined to the left side, and beginning in the face. He had several similar fits during his residence, and died quite lost and helpless.

Dura and S. D.: thickened; great excess. Pia: considerable fronto-parietal opacity and thickening; strips very readily. S.A.: slight excess. Vents., Lat.: immensely dilated. IV: granulations in the lateral sacs. Vessels: very atheromatous. Left hemisphere: marked wasting of the pre-frontal region and the whole of third frontal gyrus; the wasting is nearly as marked in the first temporal gyrus; it is fairly marked in the remainder of the fronto-parietal region, and is less marked elsewhere. Right hemisphere: just behind the middle of the second temporal sulcus is a softening as large as a hazel-nut. Encephalon: 1185 grammes. Right hemisphere, unstripped: 485. Left hemisphere, unstripped: 498. Left hemisphere, stripped: 450.

Cause of death.—Senile decay and broncho-pneumonia.

Gross Vascular Lesion.

CASE 225.—Admitted March 27th, 1899. Died March 5th, 1902. Female, æt. 87, widow. No family history.

History.—"Continually talking and raving incoherently, and vehemently demands to be married to-day in the Church of England to Squire H—. Lost. Will not answer a question, but repeats she is to be married to-day. Talks incoherently day and night till she gets exhausted. Sleepless. Constantly wet."

Course.—Restless, and crows like a cock. Much distressed, as she thinks she has lost her infant in the ward, and keeps getting out of bed to look for it. October 23rd, 1899. Right-sided convulsion. No paralysis next day; shortly afterwards fractured her right femur. Incomplete union occurred, and patient became lost and helpless, but was cheerful and very little trouble.

Dura and S.D.: thickened; great excess. Pia: thickened and opaque; strips very readily. S.A.: considerable excess. Vents., Lat.: dilated. IV.: granulations in lateral sacs. Vessels: markedly atheromatous. Marked wasting in pre-frontal region, and rather less in fronto-parietal region and first temporal gyrus. In the left hemisphere softenings exist in the distribution of the supra-marginal and calcarine arteries. The former is much the more recent. Encephalon, 1140 grammes. Right hemisphere, unstripped: 470. Left hemisphere, unstripped: 480. Right hemisphere, stripped: 450. Left hemisphere, stripped: 455.

Cause of death.—Lobar pneumonia.

Capsular Hæmorrhage.

CASE 233.—Admitted February 12th, 1903. Died March 29th, 1903. Male, æt. 76, married. Father and two brothers died from phthisis. Daughter suffers from asthma.

History.—"Depressed. Tired of life. Threatened suicide. Carries a lamp about the house to burn it and him."

Course.—Restless. Answers questions slowly, and in a rambling and incoherent manner. Auditory hallucinations. Illusions of identity. Memory impaired. A month later had an apoplectic attack with resulting paralysis of the left side, and did not recover from its effects.

Dura and S.D.: natural; great excess. Pia: marked fronto-parietal opacity and thickening. S.A.: large excess. Vents., Lat.: very dilated. IV.: granulations in the lateral sacs. Ependyma oedematous. Vessels: very fibrous and calcareous throughout the brain. In the posterior part of the right internal capsule was a hæmorrhage the size of a walnut, which had torn up the surrounding parts. It was purple in colour and fairly recent. A few small local softenings existed in the white matter of the cerebellum surrounding each dentate nucleus. Encephalon 1490 grammes. Right hemisphere, unstripped: 660. Left hemisphere, unstripped: 640. Left hemisphere, stripped: 575.

Cause of death.—Right capsular hæmorrhage. Acute cystitis. Cardio-vascular degeneration.

The Heredity of Insanity in Group V.

Of the 52 cases contained in this group, family histories were available in 24 instances, and these showed a psychopathic heredity in 11, or 46 *per cent.*

GENERAL SUMMARY OF MORBID APPEARANCES.

The morbid appearances found in the cases above referred to are summarised in the following table, in which the percentages given are based on the whole of the 433 cases. It has been found unnecessary to give also the figures obtained from Series A and Series B as they much resemble one another and also those in the conjoined table. This may be seen on comparison of the latter with the table which was compiled from the cases in Series A and published in a previous paper. The similarity of the results from the separate series naturally adds largely to the value of the conjoined table.

On examination of the percentages given below it will be seen that the morbid changes existing in the 433 cases made use of vary directly with the amount of dementia present.

433 cases of insanity.	Group I (65 cases).	Group II (96 cases).	Group III (101 cases).	Group IV (92 cases).	Group V (79 cases).
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
<i>Dura</i> : thickened or adherent	4·6	17·7	27·7	42·4	45·6
<i>Subdural deposit</i>	3·1	5·2	17·8	17·4	22·8
<i>Subdural excess</i>	38·5	76·0	92·1	100·0	100·0
(1) Slight	26·2	31·2	9·9	5·4	—
(2) Moderate	10·8	40·6	67·3	27·2	17·7
(3) Great	1·5	4·2	14·9	67·4	82·3
<i>Pia-arachnoid strips</i> :					
(1) Naturally	69·2	6·2	—	—	—
(2) Rather more readily than natural	29·2	74·0	2·0	—	—
(3) Readily	1·6	19·8	82·2	13·0	1·3
(4) Very readily	—	—	15·8	82·6	40·5
(5) Like a glove	—	—	—	4·4	58·2
<i>Subarachnoid excess</i>	21·5	61·4	92·1	100·0	100·0
(1) Slight	16·9	27·1	31·7	19·6	3·8
(2) Moderate	4·6	33·3	56·4	47·8	36·7
(3) Great	—	1·0	4·0	32·6	59·5
<i>Lateral ventricles</i> :					
(1) Dilated	10·8	39·6	73·3	92·4	98·7
(2) Granular	1·5	1·0	8·9	10·9	26·6
(3) Dilated and granular	4·6	2·1	1·0	3·3	1·3
<i>IV. Ventricle</i> :					
Granular lateral sacs	35·4	55·2	65·3	78·3	70·9

It is not proposed to deal in this paper with the general pathology of the morbid appearances here referred to, or with their bearing on our knowledge of the functions of the cerebrum, as these subjects have already been fully considered in previous contributions. For the purposes of the present paper it is desirable to refer at some length to certain of the more important morbid changes present in cases of mental disease, and to the conditions under which these are modified in different cases and under special circumstances.

Subdural deposits (pachymeningitis hæmorrhagica).

In a previous paper the writer formulated the opinion that the ordinary subdural deposits found in the insane develop owing to the alteration in the intra-cranial physical conditions which occur in dementia. The excess of intra-cranial fluid, which primarily occurs to replace loss of cerebral substance in the closed bony chamber, interferes with the normal relations of the pia-arachnoid to the dura mater, and converts a potential space into an actual one full of fluid. This excess of fluid, which is often of abnormal composition, necessarily predisposes to the development of a chronic degenerative process in both the dura mater and the pia-arachnoid, as does also the hopeless attempt at the formation of replacement or scar-tissue which is made by these membranes. Hence, any more or less sudden alteration of intra-cranial tension, due *e.g.* to a convulsion, a trauma, etc., or even to the change of blood-content from the arterial to the venous side which occurs at the time of death, tends to cause an effusion of blood from the degenerate and often dilated vessels of the dura mater, the pia-arachnoid, or both.

As may be seen in the above table, the percentage of subdural deposit in the five groups is respectively 3·1, 5·2, 17·8, 17·4, and 22·8. These figures strongly support the above thesis, and an analysis of the cases occurring in Groups I and II, which should be *a priori* of an accidental nature, affords equally useful evidence.

Of the 200 cases in Series A, only 2 examples occur in Group I and only 3 in Group II; and of the 233 cases in Series B, there are no instances in Group I and only 2 in Group II.

The following are the cases :

Series A. Group I.

Class 1.—"Various." No. 2, male, æt. 70. Blood-cake, 3 by 4 inches in area and $\frac{1}{3}$ an inch thick in the centre, pressing on the right motor area. Duration, four months. Vessels natural. Death from the after-effects of the clot.

Class 3 (c).—"Excited cases with delusions." No. 23, female, æt. 41. Small bony deposit in the dura mater beneath the left parietal foramen. Underneath this for about two square inches is a thin brownish readily-detachable membrane. Vessels natural. Death from acute tuberculosis.

Series A. Group II.

Class 1.—"Various." No. 35, female, æt. 59. Marked right-sided vascular lesion of ten years' duration. Brown, readily detachable film over the base of the skull. Vessels natural. Death from morbus cordis.

Class 3 (c).—"Recurrent seniles." No. 56, female, æt. 70. Great excess of blood-stained subdural fluid with recent blood-clots on the right vertex. Vessels thickened and a little atheromatous. Death from broncho-pneumonia.

Class 5.—"Chronic delusional adults." No. 74, male, æt. 37. A high-grade ament with some secondary dementia. Thin, reddish, detachable film on right vertex. Considerable excess of subdural fluid. Vessels natural. Death from tuberculosis of the lungs.

Series B. Group II.

Class 6.—"Epileptics." No. 74, male, æt. 56. Great excess of blood-stained fluid and a thin layer of reddish film throughout. Vessels natural. Œdema of the limbs for months before death, which was from cardiac failure.

Class 6.—"Epileptics." No. 70, female, æt. 32. Thin recent film, most marked on the right vertex. No subdural excess. Vessels natural. Death from extreme mitral stenosis.

Hence, of these seven cases, the two occurring in Group I are both accidental, and of those occurring in Group II one is accidental in association with the gross lesion, and the other four

are all recent, and are sufficiently explicable on general pathological grounds by the cause and mode of death.

Sub-dural and Sub-arachnoid Excess.

The writer feels that he cannot too strongly emphasise the importance of excess of intra-cranial fluid in the pathology of dementia. This excess is so commonly neglected in discussions on intra-cranial morbid changes in favour of gross or fine changes in the dura, the pia, or the cerebrum, that it might almost be supposed to be valueless as a criterion of the degree of cerebral wasting which is present. It is, however, now proved, chiefly through the masterly researches of Leonard Hill, that the intra-cranial fluid is normally minimal in amount, and that the blood-content of the cranium is for practical purposes constant⁽⁵⁾; and therefore any considerable and constant increase in the former is necessarily associated with a corresponding loss of cerebral tissue. Certain cases, like some of those cited above, who die slowly from cardiac failure with secondary œdema of the lungs, etc., show also some œdema of the brain or some excess of sub-dural fluid of *recent* development, with associated alteration of intra-cranial blood-content; but these belong to quite a different category in being recent and due to blood-stasis, temporary if the patient should live, and part of a general pathological body-state, and therefore not of local origin. The recent subdural deposits which, as already stated, occur in, but are not peculiar to, Group II, are chiefly found in cases of this type.

For the purposes of the present study of morbid appearances, the amount of intra-cranial fluid present has been estimated on the following plan, which has been employed owing to the ease with which it can be practically applied. The cases are divided into three groups, namely those where the subdural fluid was in excess of the normal small quantity, and which are described as showing "slight" excess; those where with the brain *in situ* it reached to the level of the tentorium, described as showing "moderate" excess; and those where it extended above the tentorium, described as showing "great" excess. In the majority of instances the first is equivalent to Groups I and II, especially the latter, the second to Groups II and III, especially the latter, and the third to Groups IV and V, especially the latter, though some overlapping occurs, as may be seen in the table.

In the case of the subarachnoid fluid, three degrees have again been adopted, but here the estimation is more a personal matter and is dependent on experience. "Great" excess, however, on the whole signifies a ballooning up of the arachnoid in the frontal and prefrontal regions; "moderate" excess indicates an obvious amount of fluid in the frontal and central regions of the hemispheres; and "slight" excess denotes a smaller, but visible, amount of fluid in the same regions.

The Pia-Arachnoid.

For practical purposes the morbid appearances found in this membrane can be most satisfactorily summarised by the ease with which it can be removed from the hemispheres. As is shown in the table, five grades have been adopted, which on the whole correspond to the five groups into which the cases have been classified.

The chief factor in modifying the manner of stripping is the œdema of the cerebrum, which at times exists, especially in patients slowly dying from exhausting diseases, *e.g.* tuberculosis, cancer, etc., or rapidly dying from acute dysentery, convulsions, etc. In some cases of œdema the membrane comes off abnormally readily, whereas in others, where the cerebral tissue is very œdematous, stripping is extremely difficult. Cases in which the condition was very marked were excluded in order to avoid error.

Post-mortem changes also markedly modify the process of stripping, but owing to the use of a cold chamber they were slight or absent in the cases employed.

The Lateral Ventricles.

Dilatation of the lateral ventricles is, equally with the above, evidence of loss of cerebral tissue. As, however, it is probably of late occurrence, and as the degree to which it exists is somewhat difficult to estimate, different grades of dilatation have not been introduced into the table, though its increasing frequency in the different groups is well shown.

Granularity of the Ventricles.

This morbid appearance is probably the homologue of the normal proliferative (and degenerative) condition of the

epithelium of the central canal of the spinal cord in adults. Here it is due to the small size of the canal, owing to development of the white matter of the cord, and to the absence of flow of cerebro-spinal fluid. Probably granularity of the ependyma of the ventricles is due to a similar cause, namely, loss of function aggravated by bathing with abnormal cerebro-spinal fluid which contains products of neuronc degeneration. As is seen in the table, it rarely exists in the lateral ventricles in Groups I and II, but occurs with increasing frequency in Groups III-V. In the fourth ventricle, however, it is frequently present in the "lateral sacs," or lateral pockets containing the choroid plexuses, occurring even in Group I in these situations in one third of the cases. In both Series A and Series B it is less frequent in Group V than in Group IV, and therefore the observation is probably accurate; and a possible cause may be the greater chronicity of the cases in Group IV and the grosser vascular degeneration in Group V. It occurs also in a small percentage of cases, in the later groups, in the upper half of the floor of the fourth ventricle on each side of the mid-line, and in a similar small percentage in the third ventricle. These appear to represent the more extreme stages of this morbid appearance, which, however, does not occur solely in dementia, but is also seen to a marked degree in certain general diseases, *e.g.* chronic Bright's, etc. In the experience of the writer it never occurs in the calamus or lower half of the fourth ventricle to an appreciable extent except in dementia paralytica (general paralysis of the insane), in which disease, except in very early cases, it is a constant and obvious sign; and it is probably due to stagnation, in the lower apex of the ventricle, of highly toxic cerebro-spinal fluid loaded with products of neuronc degeneration.

Regions of Wasting of the Cerebrum in Mental Disease.

The cases in which wasting of the cerebrum exists may approximately be divided into three categories—those in which the wasting is chiefly or wholly due to involution of the cortical neurones, those in which it is chiefly or wholly due to local or fairly general atrophies which are directly of vascular origin, and those in which both these conditions exist. The mixed cases will not be further referred to, and it is sufficient with reference to the cases of vascular origin to state that all degrees,

from definite old or recent softenings to extensive or quite local secondary atrophies of convolutions, often with vermiform or cross-striated markings, are included. The cases which are chiefly or entirely due to retrogression or involution of the cortical neurones will, however, be more fully considered.

On the whole in all three, but especially in this last category, the amount of cerebral wasting and the other associated morbid changes inside the cranium vary directly with the amount of dementia existing in the patients. The relationship is much more absolute than might at first appear probable, as in the majority of cases of insanity a more or less complete removal of the products of neuronic degeneration has occurred by the time of death. It is, however, less constant in dementia paralytica (general paralysis of the insane); for, whilst in chronic cases the wasting may be more profound even than in corresponding cases of severe dementia associated with senile involution of the cortical neurones and gross vascular degeneration, in acute and rapid cases of the disease, owing to incomplete removal of the products of degeneration, much less wasting exists. The writer has, however, seen several cases in which macroscopic and microscopic *acute* changes were as marked as is the wasting in advanced chronic cases of the disease.

The relationship of the degree of wasting to the degree of dementia is on the whole, however, very exact, and the regions of relative wasting can be determined with considerable accuracy. Taken generally—for individual variations exist—the *regions of wasting*, from personal study of over a thousand cases, are as follows :

(1) The greatest amount occurs in the pre-frontal region (anterior two thirds or so of the first and second frontal convolutions, including the neighbouring mesial surface, and the anterior third or so of the third frontal convolution).

(2) The wasting is next most marked in the remainder of the first and second frontal convolutions. [In dementia paralytica Broca's convolution should, as a rule, be included here, and (2) and (3) should follow (4).]

(3) It is perhaps next most marked in the ascending frontal and Broca's convolutions, though this grade should, in many cases at least, follow (4).

(4) It is next most marked in the first temporal convolution and the insula, and in the superior and inferior parietal lobules.

In practically all cases it is more marked in the two former than in the two later.

(5) It is least marked in the remainder of the cerebrum (including the orbital surface of the frontal lobes), particularly the inferio-internal aspect of the temporo-sphenoidal lobe and the posterior pole of the hemisphere.

In the experience of the writer exceptions to this general order are invariably due to vascular or traumatic causes, and should, therefore, be excluded from the ordinary and normal wastings of dementia.

Reference may here be made to the researches of Watson, who independently and from the histological standpoint, arrived at almost exactly similar conclusions regarding the comparative degrees of affection of the different regions of the cortex cerebri in several cases of juvenile general paralysis. The author would also in this connection draw attention to his own histological studies, and especially to those carried out on the pre-frontal cortex by the method of micrometric measurement. He has demonstrated that in ordinary dementia degrees of retrogression, limited to the pyramidal layer, exist, which vary directly with the amount of dementia present, and that in gross dementia and gross dementia paralytica the other layers of the cortex cerebri are also involved. In the severest grades, where the mental power is that of the new-born child, all the cortical layers are, as regards depth, approximately in the same condition as in the latter. The pre-frontal cortex is the last region of the cortex cerebri to develop; it possesses the highest associational functions, and it is the first to undergo retrogression. The pyramidal layer in this region is under-developed in the various grades of amentia; it varies somewhat in depth in normal individuals, and it undergoes retrogression in the various grades of dementia. These facts are cited here as they sufficiently disprove the opinion recently expressed by Campbell (⁶): "That there are simple physical reasons why the cortex of the frontal lobes specially shows changes to the naked eye in the course of cerebral wasting; it is that it is built up on an extremely weak and collapsible framework of nerve-fibres. The central gyri, the occipital lobe, and other parts do not present this naked-eye change because they, on the contrary, are built on a stout framework."

Regions of Under-Development of the Cerebrum.

Apart from the necessarily excluded abnormalities of development which are of vascular or traumatic origin, the degrees of under-development of the cerebrum follow the order given above, at least as regards (1) and (2). A further statement regarding macroscopic detail cannot be made, as it is more usual to find small and simply convoluted cerebra than brains with average but small convolutions, and it is relatively rare to meet with under-developed cerebra of average convolutional complexity which show a decrease reasonably comparable with the marked wasting which occurs in severe dementia. The question, in fact, of the functional value of an *under-developed cerebrum* requires for solution microscopic rather than macroscopic study, and, as the author has elsewhere shown, the micrometric method applied from the lamination standpoint affords a ready means of determining the degree of departure from the normal. One case of idiocy, for example, which was examined by the writer, and in which the brain, though somewhat below the average weight, appeared to the naked eye perfectly normal except for slight simplicity of the convolutions and a somewhat decreased development of the pre-frontal region, when investigated by the micrometric method, gave general average measurements which were almost identical with those obtained from a female still-born infant. (7)

Weights of Stripped Hemispheres in Relation to Amentia and Dementia.

The male encephalon between the ages of 15 and 80 years averages (F. Marchand) 1400 grammes in weight, and the female similarly weighs 1275 grammes. The ratio of the conjoined cerebellum and pons to the cerebrum is in the adult 13 : 87 (Huschke). The cerebral hemispheres thus weigh 609 grammes each in the male, and 554 grammes each in the female ; and in the stripped condition about 589 and 534 grammes respectively.

Of the 433 cases contained in Series A and Series B, the weights of the stripped hemispheres are available in 136 males and 281 females, a total of 417. The average weights in the different groups are given in the following table, in which,

owing to their varying and usually greater weight, the epileptics are classed separately :

Weights of Stripped Hemispheres from 417 Cases.

Group.	Males.		Females.	
	Normal weight	average	Normal weight	average
		. 589 grs.		. 534 grs.
I. 61 cases	Ordinary	(16) 553 grs.	Ordinary	(36) 499 grs.
	Epileptic	(5) 548 grs.	Epileptic	(4) 472 grs.
	Total	(21) 552 grs.	Total	(40) 497 grs.
II. 95 cases	Ordinary	(14) 565 grs.	Ordinary	(66) 480 grs.
	Epileptic	(7) 561 grs.	Epileptic	(8) 524 grs.
	Total	(21) 564 grs.	Total	(74) 485 grs.
III. 96 cases	Ordinary	(27) 551 grs.	Ordinary	(59) 482 grs.
	Epileptic	(4) 617 grs.	Epileptic	(6) 484 grs.
	Total	(31) 560 grs.	Total	(65) 482 grs.
IV. 90 cases	Ordinary	(27) 509 grs.	Ordinary	(44) 455 grs.
	Epileptic	(11) 516 grs.	Epileptic	(8) 460 grs.
	Total	(38) 511 grs.	Total	(52) 456 grs.
V. 75 cases	Total	(25) 513 grs.	Total	(50) 437 grs.
G. total 417 cases	G. total	136 cases.	G. total	281 cases.

In the above table it is probable that the weights in the female cases are more reliable, owing to their greater number, than those in the male. As, however, both sets support the same conclusions and differ very little in detail, any departure from average accuracy which may exist is not of importance.

The following facts are readily elicited from the table :

The weights throughout are considerably below the normal average, and this statement applies even to Group I, where no wasting exists, and to Group II, where little or no wasting has occurred. In the case of Group III, however, it is possible that the wasting which has occurred may be sufficient to account for the decrease in average weight, on the supposition that this originally reached the normal. In Groups IV and V, in which much wasting exists, it is difficult to estimate the

original weight of the brains, which may or may not have been up to the normal.

It is clearly shown in the table that the cases in Group III originally possessed a greater weight than those in Groups I and II. This agrees entirely with the writer's micrometric studies, which showed that there exists in the first and second groups a considerable under-development of the cortex cerebri which is in some cases almost as marked as in the wasting in Group IV. *The cases in Groups I and II are therefore macroscopically and microscopically cases of "amentia" as defined by the writer.*

It is thus evident that the facts of macroscopic and of microscopic anatomy support the views which were expressed by the author in the Introduction to this paper and which are the basis of the classification of mental diseases to which Parts II and III are devoted.

DEGENERATION OF THE CEREBRAL VESSELS IN MENTAL DISEASES.

The examples of degeneration of the cerebral vessels which are present in the 233 cases of Series B are as follows :

	<i>Per cent.</i>
GROUP I. <i>Average age : 35 years ; 1 in 32 cases</i>	3
<i>No. 6.—Male æt. 57. Systemic syphilis and syphilitic stricture of the œsophagus ; atheroma slight.</i>	
GROUP II. <i>Average age : 50 years ; 12 in 44 cases</i>	27
<i>32 natural, 6 slight, 5 moderate and 1 severe.</i>	
GROUP III. <i>Average age : 54 years ; 23 in 50 cases</i>	46
<i>27 natural, 11 slight, 9 moderate and 3 severe.</i>	
GROUP IV. <i>Average age : 68 years ; 46 in 55 cases</i>	84
<i>9 natural, 7 slight, 18 moderate and 21 severe.</i>	
GROUP V. <i>Average age : 69 years ; 51 in 52 cases</i>	98
<i>1 natural, 3 slight, 16 moderate, and 32 severe.</i>	

The average age of the cases in Series A was, in a previous paper, shown to be 57 years. In the 233 cases in Series B, the average is again, by what might seem a remarkable coincidence, 57 years, and the writer is thus enabled to once more divide the cases into those above and those below the age.

The average age in the several groups of Series B is respectively 35, 50, 54, 68, and 69 years, as compared with 38, 55,

57, 68, and 70 years respectively in the several groups of Series A.

The percentage below the average age in each group of Series B is respectively 97, 61, 48, 15, and 6, as compared with 82, 54, 45, 11, and 7 in the respective groups of Series A.

Of the cases below the average age of 57 years, there is not a single instance of atheroma in Group I, and there are 4 examples (in 27) in Group II, 4 (in 26) in Group III, 4 (in 8) in Group IV, and 3 (in 3) in Group V.

As was the case in Series A, the atheroma, except when slight, is, in patients below the age of 57 years, a physical sign of systemic disease, *e.g.* syphilis, renal disease, etc., and therefore belongs to the category of "accidental" atheroma.

The incidence of "normal" vascular degeneration can, therefore, without serious error, be studied by means of the cases which are above the average age of 57 years.

The percentage of cases above the average age of 57 years in Groups I-V respectively of Series B is 3, 39, 52, 85, and 94, as compared with 18, 46, 55, 89, and 93, in the corresponding groups of Series A.

The atheroma in each of these groups is as follows :

Group I.—*One case only.* Male, \ae t. 57 . Atheroma, slight. Sytemic syphilis and syphilitic stricture of the oesophagus. This case must be classed as "accidental."

Group II.—Of the 17 cases, 9 are natural. Of the 8 examples of atheroma, 5 are slight, and 3 are moderate (47 *per cent.* of atheroma).

Group III.—Of the 24 cases, 5 are natural. Of the 19 examples of atheroma, 8 are slight, 9 are moderate, and 2 are severe (79 *per cent.* of atheroma).

Group IV.—Of the 47 cases, 5 are natural. Of the 42 examples of atheroma, 7 are slight, 16 are moderate, and 19 are severe (89 *per cent.* of atheroma).

Group V.—Of the 49 cases, 1 is natural. Of the 48 examples of atheroma, 2 are slight, 15 are moderate, and 31 are severe. (98 *per cent.* of atheroma).

An examination of these figures demonstrates that *the percentage and also the severity of the atheroma increase directly with the amount of dementia present.*

On the other hand, the following figures show that, whilst it is nevertheless true that atheroma is one of the degenerative

conditions consequent on senility, *the existence of degeneration of the cerebral vessels is independent of the age of the patient*, even when senile, as the average age in each group, whether atheroma exists or not, varies little.

233 Cases.	Group I (32 cases).		Group II (44 cases).		Group III (50 cases).		Group IV (55 cases).		Group V (52 cases).	
	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.
Number of and average age of all patients above 57 years	1	57	17	64	24	66	47	71	49	70
Number of and average age of all patients above 57 years, without atheroma .	—	—	9	63	5	65	5	67	1	68
Number of and average age of all patients above 57 years, with atheroma .	1*	57	8	65	19	67	42	71	48	70

* Accidental.

It is thus evident that, whilst senility is an extremely elastic term, the actual age at which the body elements wear out depending on their inherent resistance and on the "stress" to which they are subjected, *there is a direct relationship between the presence of degeneration of the cerebral vessels and the development of severe dementia*. That the latter is not a necessary consequence of the former is proved by the occasional existence of gross vascular degeneration without the co-existence of dementia. This subject has, however, in a previous paper, been exhaustively discussed, and it suffices here to repeat the more important data in favour of a causal relationship between severe degeneration of the cerebral vessels and gross dementia. These are as follows :—

(1) Simple senility (*i.e.* old age) is not necessarily associated with gross degeneration of the cerebral vessels.

(2) In the insane gross degeneration of the cerebral vessels may exist without dementia.

(3) Dementia, except in rare cases of slowly progressive presenile involution of the cortical neurones, does not progress beyond a moderate stage, if gross degeneration of the cerebral vessels does not co-exist.

(4) In the 200 cases of Series A and the 233 cases of Series B, the percentage amount, and also the severity, of naked-eye

degeneration of the cerebral vessels varies directly with the degree of dementia present.

(5) Severe degeneration of the cerebral vessels occurs before the development of gross dementia. In recent senile cases, with the mildest dementia but considerable confusion, which, had they lived, would on clinical grounds have been expected to develop gross dementia, the percentage of naked-eye degeneration of the cerebral vessels is as great as it is in Groups IV and V. On the other hand, in chronic and recurrent senile cases with mild dementia only, naked-eye degeneration of the cerebral vessels is rarely present and is then relatively slight.

Hence the relationship between the presence of degeneration of the cerebral vessels and the development of dementia may be thus summed up: *In a cerebrum which has begun to break down, or where degeneration has progressed to the "moderate" stage (Group III), the presence or incidence of gross degeneration of the cerebral vessels will cause rapid progress of the neurotic degeneration, with gross dementia.*

THE INFLUENCE OF TUBERCULOSIS ON THE SYMPTOMATOLOGY AND MORBID ANATOMY OF MENTAL DISEASE.

Active tuberculous disease was present at death, or the cause of death, in 105, or 24 *per cent.* of the 433 cases in Series A and Series B. In the former series of 200 cases there were 47 examples (23·5 *per cent.*), and in the latter series of 233 cases there were 58 examples (25 *per cent.*). In both series the percentage was very high in Group I, high in Groups II and III, and low in Groups IV and V. The cases were fairly evenly scattered throughout the several divisions of the different groups, but somewhat preponderated in Classes 2 and 3 of Group III, which contain the cases in this group where the onset of the insanity occurred at or after maturity. In all the groups the average age of the patients dying with tuberculous disease was considerably below that of the whole of the cases in the respective groups.

These facts are fully expressed in the following table:—

Series A (200 cases).						Series B (233 cases).									
Group.	No. of cases.	Average age at death.	Tubercle.				Average age at death.	Group.	No. of cases.	Average age at death.	Tubercle.				Average age at death.
			M.	F.	T.	Per cent.					M.	F.	T.	Per cent.	
I	33	38	3	8	11	33	27	I	32	35	7	9	16	50	30
II	52	55	4	8	12	23	43	II	44	50	4	9	13	30	44
III	51	57	8	6	14	27	49	III	50	54	5	11	16	32	44
IV	37	68	3	3	6	16	66	IV	55	68	5	2	7	13	58
V	27	70	2	2	4	15	67	V	52	69	6	0	6	12	65
Total	200	57	20	27	47	23.5	46	Total	233	57	27	31	58	25	44

For the purposes of this paper it is necessary to now refer to the important influence exerted by tuberculosis in modifying both the symptomatology manifested during life and the morbid appearances found in the encephalon after death. This is especially the case as no less than one fourth of the 433 patients suffered from the disease.

Symptomatology.—Tuberculosis in the insane usually exerts a profound influence on the mental symptomatology exhibited by the patients, and not infrequently tends to cause errors in diagnosis.

Usually the patient becomes dull and apathetic and gradually ceases to work, and is finally almost stuporose, sitting all day with the head and spinal column flexed and the arms lying or hanging listlessly. The extremities are cold and blue, and the patient loses weight and frequently is wet and dirty. This mental condition may exist for long periods without the development of dementia.

In other cases the patient becomes surly, suspicious, and solitary in habits. He refuses food, often from fear of being poisoned, becomes violent if interfered with, and loses flesh. His behaviour in many respects resembles that of a caged beast suffering from severe injury or bodily disease.

In other cases, again, and especially when the tuberculous affection is of a very chronic type, the mental condition alternates

between excitement during the remissions and dulness and apathy during the exacerbations of the bodily disease. The patients, for example, are not uncommonly described as suffering from mania during the summer and from dementia during the winter.

Whilst in some instances the mental condition is little, if at all, affected by the presence of tuberculosis, and in others either *spes phthisica* or depression, which may be associated with extreme resistiveness, is met with, the above three types, in the experience of the writer, represent the most common effects of tuberculosis on the mental condition of the sufferers from mental disease.

Morbid anatomy.—As a preliminary remark it may be stated that in not a single case was any portion of the intra-cranial contents affected by tuberculosis, and the writer has never yet seen a case of active intra-cranial tuberculosis in the insane. Though a few examples have been described, this condition is probably of extreme rarity in spite of the fact that hardly any other part of the body, especially in the chronic disseminated form of the disease, appears to escape occasional infection.

In 15 of the 47 cases (32 *per cent.*) in Series A, and in 21 of the 58 cases (36 *per cent.*) in Series B, the pia-arachnoid and cerebrum were œdematous, in many instances markedly so. This condition much modifies the process of stripping, in some cases the membrane stripping readily and in others the softness of the grey matter making stripping almost an impossibility. The œdema is frequently of importance in rendering the cerebra useless for histological purposes.

In the more chronic cases also, where the patient dies in a condition of extreme emaciation, some general wasting of the cerebrum, with increase of intra-cranial fluid, occurs and at first makes it difficult to assign the case to its proper group. It is usually, however, possible to make the necessary allowances on careful examination of the cerebrum.

The following table shows the relative amount of œdema of the encephalon in the tuberculous and the non-tuberculous cases of the two series :

Cases with œdema of the brain.	Series A.		Series B.		Total.	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
With tuberculosis	15 in 47	32	21 in 58	36	36 in 105	34
Without tuberculosis	18 in 153	12	30 in 175	17	48 in 328	15
Total	33 in 200	17	51 in 233	22	84 in 433	19

Hence the proportion of œdematous brains in the cases with tuberculosis is more than double that in the cases not suffering from this disease. As is, however, shown in the following table, which comprises all the cases in which cerebral œdema occurred, this condition is not directly due to the presence of tuberculosis.

Disease.	Number of cases with cerebral œdema.		
	200 of Series A.	233 of Series B.	Total of 433.
Tuberculosis	15	21	36
Pneumonias	5	9	14
Other infections and toxæmias	4	6	10
Cardio-vascular disease	1	8	9
Cerebral affections	3	2	5
Carcinoma	4	1	5
Senile decay, etc., with cardiac failure	1	4	5
Total	33	51	84

It is probable that intra-cranial œdema, apart from cases of cerebral lesion, is usually due to progressive cardiac failure, to the different toxæmias and infections, or to these conditions combined, and that tuberculosis acts either by causing exhaustion and cardiac failure or by means of the secondary infections which in chronic cases are important factors in the production of "pulmonary phthisis."

Apart, however, from the mode of production of œdema of the brain, the facts, that about one-fourth of the 433 cases referred to died with tuberculosis and that one-third of these

cases exhibited intra-cranial œdema, justify the writer in drawing special attention to a factor which so frequently modifies the morbid anatomy of mental disease.

(¹) "The Exact Histological Localisation of the Visual Area of the Human Cerebral Cortex" (*Phil. Trans.*, Series B, vol. cxcii, pp. 165-222).—(²) Working on somewhat different lines, Campbell has since mapped out the latter area and also many other regions of the cerebrum.—(³) "The Functions of the Frontal Lobes" (*Brain*, 1903, part cii, pp. 215-241).—(⁴) "The Histological Basis of Amentia and Dementia" (*Archives of Neurology*, vol. ii, pp. 424-620).—(⁵) In this connection the author's experiments on the effect of gravity on the intra-cranial contents of the cadaver (*Archives of Neurology*, vol. ii, pp. 492-8) are of importance.—(⁶) *Journ. Ment. Sci.*, Oct., 1904, pp. 655-6.—(⁷) *Archives of Neurology*, vol. ii, pp. 579-80.

Adolescent Insanity: A Protest against the Use of the Term "Dementia Præcox." By J. C. MCCONAGHEY, M.B., Senior Assistant Medical Officer, Parkside Asylum.

KAHLBAUM in 1863 described a form of mental disease occurring at puberty and rapidly terminating in dementia; this he called "hebephrenia." In 1874 the same author described the condition known as "katatonia" or the "insanity of rigidity." These terms do not appear to have been adopted till 1891, when Pick, under the heading of "dementia præcox," described cases, including hebephrenia, characterised by maniacal symptoms followed by melancholia and rapid deterioration. This term has now been extended by Kraepelin to include the "hebephrenia" and "katatonia" of Kahlbaum, together with certain forms of paranoia which undergo early deterioration.

I have been reading two translations of Kraepelin's books, and the following is a short description of his views: As regards the *cause* of the disease, he obtains a defective hereditary history of various neuroses in 70 per cent., and 60 per cent. of the cases appear before 25 years of age; he advances the theory that auto-intoxication, acting on a subject with a bad family history during an acute disease or during the various stages of reproduction, is the chief cause.

The essential symptoms of the disease are that voluntary attention and activity are much impaired, although the patients are, as a rule, well oriented; judgment becomes progressively defective, and there is a marked dulling of the emotional field;

the memory for past events is good, but bad for recent occurrences. They perform impulsive purposeless acts and show no capacity for employment. Negativism, stereotypy, and muscular rigidity may be present, ultimately leading to various degrees of mental deterioration; such cases are very common in asylums.

He divides the disease into three subdivisions: (1) hebephrenic; (2) katatonic; (3) paranoid.

(1) The *hebephrenic* cases are mildly maniacal, with frequent fits of depression tinged with sexual feelings. Hallucinations and delusions are present, but are not essential, combined with emotional dulness, childish idleness, and senseless laughter, leading in most cases to mental enfeeblement within two years; 75 *per cent.* reach profound deterioration and only 8 *per cent.* recover.

(2) *Katatonic* cases generally show a subacute onset with mental depression, and hallucinations and delusions of a religious or persecutory nature are usually present. During this early stage the actions are seen to be constrained; later there is muscular tension, and they may take up peculiar attitudes symbolical of their thoughts. Following this period of depression you get the more characteristic symptoms of katatonic stupor and katatonic excitement. The most important symptoms during stupor are negativism, muscular tension, catalepsy, echolalia, and echopraxis. Katatonic excitement may interrupt, follow, or even precede the stupor, and is characterised by impulsive purposeless actions, stereotyped movements, and verbigeration, the latter being especially marked in their letters. Mannerisms of speech and facial expression are common, and sexual excitement may be present. The temperature of these cases during the acute stage may be 100° – 102° . Only in this form are *remissions* common, and these may last in some cases from 5 to 15 years. In 86 *per cent.* of the cases mental deterioration takes place, and only 13 *per cent.* recover, and even these show some peculiarities. The continuance of the stupor does not constitute deterioration, but the latter state is present when the consciousness becoming clearer no improvement in the emotional attitude takes place, and the periods of excitement and peculiar mannerism persist. Deaths from phthisis are common.

(3) The *paranoid* form is characterised by the great promin-

ence and persistence of delusions and hallucinations for several years, in spite of progressive mental deterioration. In the last two groups delusions and hallucinations were not prominent and gradually disappeared. There are two subdivisions of this group—(a) many incoherent and ever changing delusions of persecution and grandeur are present together with hallucinations of hearing, a light grade of motor excitement, with retention of clear consciousness for a considerable time, and rapid appearance of mental deterioration ; (b) characterised by hallucinations, especially of hearing, and fantastic delusions of persecution and grandeur which are mostly coherent and adhered to for a number of years, when they disappear, leaving the patient in a state of moderate deterioration. The course in most cases is similar—the development of depressive delusions, to be followed by those of grandeur, the latter pointing to the onset of deterioration, which is indicated by a lack of judgment and absence of mental energy. The disease is differentiated from paranoia in that it develops rapidly, a whole host of fantastic delusions which are not based on fact and prominent hallucinations are present, and the emotional attitude is much changed. Paranoia, on the other hand, develops slowly, hallucinations are few, the delusions are based on some actual fact misconstrued by the morbid mind, and the emotional attitude is almost normal. No recoveries take place in this group. Adolescence is admittedly the chief causal factor, combined in the large majority of cases with an hereditary history of insanity. In one book Kraepelin does not describe any form of adolescent insanity excepting “dementia præcox,” and in the second, in speaking of this disease brackets it “adolescent insanity,” yet in describing the disease he quotes the case of a woman who was first affected in her 38th year. I think most authorities are agreed that adolescence is attained at the 25th year, and a number of writers on this subject wish to limit the age incidence in any case to 30.

Personally, I agree with the latter, and adopt an age limit of 30. I have made a careful examination of the *female* case-books embracing a period of twelve years; after excluding general paralytics, epileptics, and congenital cases, I obtained 192 cases of the specified age out of a total admission of 977 patients, or making 19.6 *per cent.* of the admissions during that period. Kraepelin gives an admission rate of 14–20 *per cent.* I have

divided these cases into three age-periods: (1) 20 and under, 18·3 *per cent.*; (2) 21 to 25 inclusive, 36 *per cent.*; (3) 26 to 30 inclusive, 47·3 *per cent.* Thus 54·3 *per cent.* were admitted before the age of 25.

An hereditary history of insanity was most marked in the cases of the first period, and least marked in those of the second period. A history of an hereditary taint of 39 *per cent.* was obtained in all cases taken together; this is much less than is generally quoted, and is probably less than the actual fact owing to the ignorance of friends who fill in the history forms.

Clouston, in the last edition of his book on mental diseases, lodges a vigorous protest against Kraepelin's use of the term "dementia præcox" and his classification of the disease. He says: "Kraepelin has taken the term 'dementia præcox' and applied it to practically my whole group of adolescent cases as described by me in 1873, making it cover the curable and incurable; I object strenuously to the word 'dementia' as applied to any recent and curable varieties of mental disease as being confusing and unscientific."

I quite agree with Clouston in that it is unscientific and somewhat stultifying to label a case as suffering from dementia, and then to have to record a recovery, as is often undoubtedly the case; consequently "adolescent insanity" would appear to be the best term to apply to this group of mental affections which we have under consideration.

In looking over these cases I was struck by the large number of patients that did not conform to Kraepelin's types, and I could find only six cases that could be put into his paranoid section.

I propose to arrange adolescent insanity into three groups: (1) the simple; (2) the delusional; (3) the katatonic.

(1) The *simple*, to embrace all cases of excitement and depression in which delusions and hallucinations are not a prominent factor, recognising these two states merely as phases in a disease which certainly shows some degree of alternation. A case may first be excited, then depressed, and later become quiet and lead one to think recovery has set in, only to break down again. The following case is a good illustration of this type: A girl æt. 18, whose mother was insane, was admitted into this asylum six months ago in a state of wild excitement and incoherence; a week later she was depressed, and was

certified as suffering from melancholia ; a few days later she again became very excited and destructive, but about a month ago she began to improve mentally and physically, and at present is a useful help in the laundry, and is gradually recovering. No delusions or hallucinations were marked in this case.

(2) The *delusional* type. In studying the case books I was struck by a class of case in which excitement or depression is not marked, but where the deluded state, accompanied by hallucinations, is the prominent factor. The delusional state persists for two or three months or longer, and gradually fades away as recovery or dementia supervenes. Only in six cases were the delusions marked when terminal dementia had set in. This sequence corresponds to Kraepelin's paranoid form. It seems hardly worth while to put these few cases into a special group. The following is a good example of such a case: A woman *æ*t. 30, who has been here once before, and has two sisters, epileptics. This patient on admission was slightly depressed, this state giving way to mild excitement, but the deluded state was the marked feature, as she suffered from delusions of persecution, and was much troubled by auditory and visual hallucinations. This state persisted for over two months, and after a residence of six months she was discharged recovered.

(3) The *katatonic*, to embrace cases in which the muscular system is especially affected, whether there be catalepsy, rigidity, or passive stuporose conditions, as illustrated by the following case: A girl, *æ*t. 19, whose paternal great-grandmother was insane and mother nervous. On admission three months ago she was rough and obstinate, and had to be carried up to the ward. She resisted having her clothes taken off and being examined ; she refused to speak, stared blankly in front of her, and had to be dressed and fed, and her habits were bad. Later on she had to be fed with the tube two or three times, and she got very thin, developed an alveolar abscess, but after the tooth was drawn she showed no improvement in her mental condition. She remains rigid and silent perhaps for days, will stand in one place staring vacantly before her, then suddenly without any cause she will scream out some nonsense, break a window, kick or hit those near her, or start off walking quickly round the court, later to subside on to a seat in a rigid attitude. She now refuses to speak when questioned, but there

is a slight flicker of a smile which shows that she appreciates what is said to her ; she shakes hands readily and grips the hand fairly well. This patient is now gradually getting stouter, is cleaner in her habits, but is still very impulsive. She will probably be well enough in a few months to be discharged as recovered.

Impulsiveness is a marked feature in all three forms. I have classified my patients on these lines and find that nearly an equal number conform to each of the three types. The katatonic state predominated in the patients of the first age period, the simple type in the second, and the delusional in the third period.

As regards *prognosis*, Clouston states that 66 *per cent.* of cases of adolescent insanity recover. In the cases under consideration I found that 53·1 *per cent.* recovered, the total recoveries being 102, and only 11 cases out of this number have been readmitted. Of the *simple type* 75·8 *per cent.* recovered, of the *delusional* 47·6 *per cent.*, and of the *katatonic* 36·9 *per cent.*, showing that the simple type is highly recoverable and the katatonic least so. These figures are in marked variance with those of Kraepelin, who only gets a total recovery rate of 21 *per cent.* in all cases. Personally I think these figures depend a good deal on what one considers constitutes a recovery, as in most cases a mental scar is present when the patient has got over an acute attack of insanity.

The patient may never be his old self again after such an attack, yet if he is considered to be in a fit state to follow his previous occupation and to earn his living without being a nuisance to his fellows, I think we are justified in saying he has recovered. One is very loth to admit recovery is so infrequent, especially among young people, as Kraepelin states, and in the katatonic form he admits that there may be periods of intermission ranging from five to fifteen years when the patient may be discharged and be capable of earning his living. The Commissioners in their last Report give an average recovery rate of 37·35 *per cent.* on all admissions. How can these figures be obtained if we are to deal with the matter of recovery as severely as Kraepelin appears to do ?

As regards the *deaths*, 28 were recorded, or giving a percentage of 14·5 *per cent.* of the admissions. No fewer than 23 of the deaths were due to lung complaints, and out of this number 17 were caused by phthisis—11 in the katatonic, 5 in

the delusional, and 1 in the simple class ; 15 deaths occurred amongst the katatonic division, 10 in the delusional, and only 3 amongst the simple type. Thus the prognosis, both as regards mental recovery and life, is best in the simple and worst in the katatonic division.

I have included in these statistics 31 cases incident to reproduction, as Kraepelin states that it is a marked etiological factor ; the majority of them conform to my delusional type, and there are only 6 simple cases. The recovery rate is slightly higher, but in the same ratio as in the other cases, the simple taking the lead and the katatonic coming last. There were only 3 deaths amongst these cases—2 in the delusional and 1 in the katatonic division.

Out of 132 cases that were admitted between the years 1884 and 1892 inclusive, 20 are still in the asylum. The majority of these are demented and degraded. They are very impulsive and violent, and have periodical attacks of excitement ; their habits are bad, and they are inclined to destroy their clothing, and seem to take a particular delight in breaking windows ; in fact, they are about the worst cases in the house.

Of the whole 192 cases, 38 remain in the building—18 of the katatonic, 14 of the delusional, and 6 of the simple class, and I think all of them may come under the heading of dementia.

As regards the *physical signs* in dementia præcox, Kraepelin describes loss of weight, trophic changes in the skin, irregularity and dilatation of the pupils, exaggerated knee-jerks, spasmodic twitching of the facial muscles, amenorrhœa, and in the last stages a pale pasty face, as being characteristic.

The *diagnosis* according to the arrangement I have formulated is easy.

Nothing characteristic of the disease has been found in the brains of these cases after death.

Lastly, as regards *treatment*, organo-therapy and serum-therapy do not appear to have produced any benefit. The best results seem to be attained through a generous but simple diet, attention to the bowels, and vigorous exercise in the fresh air. They should be confined to bed only during the acute stages of the disease.

DISCUSSION.

At the meeting of the Northern and Midland Division, October 13th, 1904.

Dr. SHEDDEN said one must recognise the brilliancy and fidelity of Kraepelin's case-descriptions, and acknowledge that he has separated certain varieties of

mental disease which cannot be included in any ordinary nomenclature. Katatonia appears to be worthy of provisional acceptance as a clinical entity, but one cannot so far accept Kraepelin's generalisation of dementia præcox.

Dr. BEDFORD PIERCE pointed out that Dr. McConaghey had included under adolescent insanity a considerable number of cases of mental disorder not included in the term "dementia præcox," e.g. cases of maniacal-depressive insanity, alcoholic and post-febrile cases, and on this account his recovery rate was much higher than that given for dementia præcox. Dr. Pierce congratulated the meeting on having Dr. Johnstone present, whose excellent translation of Kraepelin's clinical lectures was doing so much for making Kraepelin's teaching more widely known in this country.

Dr. JOHNSTONE (Leeds) thanked Dr. McConaghey for his paper, which had dealt exhaustively with the clinical manifestations of dementia præcox. He observed that the method of "shaking hands" is most peculiar, patients advance their hand by a series of jerks—like the movements of "wound up" wax figures—toward the other person's hand; they may touch or even grasp it, but rarely shake it. Again, some of them not only display "negativism" and "automatic obedience," but also a combination of negativism and automatic obedience. As had been said, he was more or less responsible for the appearance in English of Professor Kraepelin's lectures on clinical psychiatry, and it is only fair when speaking or writing on any new entity or disease which may have comparatively recently been thrown across the medical horizon to adhere to the descriptions of the condition by the person who has studied and isolated the disease from similar states, and given it a name. Though generally occurring during development, it does not include so many diverse diseases as the English term of insanity of adolescence. Further, when dementia præcox is diagnosed for the first time, say from 30 to 40 years of age, this does not do away with the fact that this disease is still one of evolution or development, because as ordinary medical men dealing ordinarily with physical conditions, we look upon development as having finished at say from 18 to 25 years of age. The alienist, however, whose business is more strictly with the cerebro-spinal centres, may regard evolution or development as continuing in those tissues to nearly 40 years of age. Again, Professor Kraepelin does not hold the condition incurable, because he speaks of acute curable cases of dementia præcox. The diagnostic point or symptom of this disease is (according to Kraepelin) "a peculiar and fundamental want of any *strong feeling of the impressions of life*, with unimpaired ability to understand and to remember." Thus a well-educated patient in this condition will lie in bed for weeks or months, never feeling the slightest desire for occupation of any kind. Besides, speaking of the final stages of this disease, he says: "It is not one particular form of dementia with incidental variations which constitutes the result of the most varied kinds of uncured mental disorders, but every form of insanity, if not cured, leads to a final condition *peculiarly its own*. It is true that this peculiar condition shows itself invariably in the *essential* symptoms of the disease alone, whereas the incidental accompanying phenomena may greatly change." The cause of this disease may be stated simply, as any cause of a depressing character which can and does interfere with the healthy nutrition of the nerve centres. The prognosis varies according to the cause, whether severe, transient or continuous, the age, family history, and social or perhaps financial position of the patients or their friends or relatives. In one of his cases the disease seemed to be induced by over-study, a wave of hot weather, and dilatation of the stomach, and by careful treatment directed to the causes, the patient made a slow but good recovery. In the translation of these clinical lectures of Professor Kraepelin's, he had used the terms maniacal-depressive insanity, negativism, stereotypism, and automatic obedience, to indicate certain symptoms and conditions. He was aware other terms have found their way into another publication, but those used in these lectures are not only classically but absolutely better, and there may be an opportunity of explaining this at some future meeting.

Dr. MENZIES related a case which showed all the clinical signs, both mental and physical, described by Kraepelin as indicative of katatonic dementia præcox, in which recovery occurred after seven months. He laid stress on the necessity for a guarded prognosis of irrecoverability.

Dr. MIDDLEMASS said that the amount of attention which had recently been

directed to Professor's Kraepelin's system of classification of mental diseases made Dr. McConaghey's paper of special interest at present. With regard to this classification, its success must be judged by the degree of ease with which one is able to place each individual case in its appropriate division. Speaking for himself he could not say that he had been as successful as he could have wished, many cases being referable to several divisions or exceptionally to more. One other weak point in Kraepelin's system is that he makes the termination of the disease of great importance in the classification. This may be scientifically correct, but one can seldom wait till this stage is reached before making a diagnosis or giving a prognosis. With respect to the special subject dealt with in this paper, he quite agreed with Dr. Clouston in deprecating the use of the term "dementia" to cases a very considerable number of which ultimately recover. This is by no means in accordance with the already deeply grounded definition of the term which is prevalent in this country.

Dr. McCONAGHEY replied.

Statistics in Insanity: a Universal Scheme. By C. C. EASTERBROOK, M.A., M.D., F.R.C.P.Ed., Medical Superintendent, Ayr District Asylum, Ayr.

THE following paper is an attempt to deal with statistics in insanity according to a scheme which observes the fundamental canon of statistical accuracy, which interprets the true spirit of lunacy legislation, and which serves the essential purpose of medical utility. I may divide the paper into three parts:

I. The Methodology of the statistics of Insanity in Asylums and similar Institutions.

II. The Statistical Data of Insanity, and their Embodiment in a Medical Register of Insane Persons for Private or Institutional Use.

III. The Construction of Medical Tables for the Annual Statistics of Insanity in Asylums.

PART I.

The Methodology of the Statistics of Insanity in Asylums and similar Institutions.

The psychiatrist, whether he be in private or in asylum practice, who keeps notes of his cases for purposes of study and treatment, regards his patients from the medical point of view in the same way as other physicians do. Should he desire to publish his statistics of, say, a particular variety of mental disease, he is careful to include all the cases which he has kept

record of, and to include no patient more than once, and he is unconcerned in this connection as to whether his patients be voluntary, certified, transfers, or the like. Should he desire to publish his experience with, say, a special kind of treatment, he similarly will take care to include all the patients who have had the treatment, and if the same patient has had several trials of the treatment he will mention the fact, and not count each trial as a separate case or person treated. In short, to the psychiatrist publishing his own statistics "cases" mean "individuals" or "persons," and he is not fettered with technicalities of lunacy administration nor with the snares of annual statistics.

The asylum physician, however, who is publishing the annual statistics of an institution, must take cognizance of such technical considerations. I do not wish to dwell unduly on the difficulties which are introduced into asylum statistics by the legal considerations of psychiatry and by the differences in lunacy administration and statutory terminology in England, Scotland, and Ireland—difficulties which are apt to greatly complicate the construction of a uniform scheme of statistics for the asylums of the three countries, and similarly of other countries. The difficulties, however, exist, and unless they are remedied, statistical confusion will ensue and misrepresentation of truth go on as before, and the more so if the central lunacy authorities of the three countries summarise the statistics of the asylums and similar institutions under their respective jurisdictions, and take to comparing notes with one another, and perhaps with the lunacy authorities of other countries who publish medical statistics. In the construction of a uniform scheme for the annual statistics of asylums there are, I think, three main difficulties :

First, there is the difficulty of the "voluntary boarder" as distinguished from the "certified patient." The voluntary boarder is an inhabitant of our asylums—English, Scottish, and Irish; he is not certified, and so is not technically "insane"; he must therefore be excluded from "insanity" statistics (though not necessarily from private psychiatry statistics); how then is the "voluntary" to be dealt with statistically in asylums? This raises the further question, Is it desirable to record the statistics of voluntary boarders in the tables at all? For statistical accuracy the voluntary boarders must be excluded from the tables which have to deal with certified

patients and the statistics of insanity; and when thus considered apart, they are so relatively few in number in even the largest institutions which receive them, that one is practically, from motives of delicacy, restricted to a mere numerical statement of their movements during the year; and the question thus resolves itself into this: Should this numerical statement be introduced as a parallel insertion into the similar tables showing the movement of the certified patients, or should it be kept separate and distinct, and known as the "voluntary" table? As in the meantime, at any rate, the great majority of asylums in this country do not receive voluntary boarders and so could not fill this statement, I think the latter course preferable, and so would make the voluntary table separate, and put it amongst what may be called a local or optional group of tables, which would follow the other recognised groups of tables, and would place it last of all, inasmuch as every other table has to do with certified patients. The Statistical Committee of the Association, whose Report on the proposed new tables was presented last July and is still being discussed and criticised by the various Divisions, possibly anticipating in the near future the more general presence of voluntary boarders in asylums, have adopted the other procedure, having made provision for this numerical statement of the voluntaries in General Table I, and in the titles of the other tables they have deemed it advisable to add "Voluntary boarders excluded," a precaution which will hardly be necessary if the valuable suggestion be carried out as to the adoption of a Medical Register for the certified patients, from which all the data for the medical tables will be obtained.

Secondly, there is the difficulty of "cases" as distinguished from "persons" in annual statistics. This difficulty obviously does not arise in connection with the statistics either of the "deaths" or of those resident on December 31st. It arises only in connection with the admissions and the discharges of the year under report (the current year, so-called). It is obvious from what has been said before that for purposes of accuracy in annual medical statistics we must reduce "cases admitted" and "cases discharged" in any given year to terms of "persons admitted" and "persons discharged." For statistical purposes we must deal with "persons admitted" as at the time of their first admission during the current year, and with "persons

discharged" as at the time of their last discharge during the current year; consequently, to reduce such cases to terms of persons we have merely to deduct from the "total cases admitted" the "re-admissions of the current year," and from the "total cases discharged" what may be conveniently termed the "pre-discharges of the current year." The latter naturally are less numerous than the former; and not uncommonly, indeed, a person may be admitted not only twice in the current year, but thrice; and so to cover such cases it is useful to employ the term "re-readmissions of the current year." The various reasons for "re-admission during the current year" comprise the following: onset of another attack, relapse during same attack, expiry of interim order, expiry of emergency certificate, and irregularity of admission papers. In this connection I think that the term "re-certification" should be avoided, because (1) "re-admissions of current year" is a phrase applicable to voluntary boarders as well as to certified patients, and so can be similarly used for reducing cases to terms of persons in the "voluntary" table; (2) all "re-admissions of the current year" into asylums are, of course, re-certifications in the case of certified patients; and (3) the term "re-certification" already has a very precise meaning quite apart from the admission or re-admission of patients in the ordinary sense; e.g., the annual re-certification of chronic insane patients in Scottish asylums. By reducing cases to terms of persons admitted or discharged in any given year, not only is one common source of error avoided in the medical statistics of asylums, but it is evident that the Central Lunacy Authority also is enabled to avoid the same error, provided that the said Authority is supplied with a copy of an annual Medical Register of the insane persons admitted, and takes care to eliminate those persons who, after being admitted into one asylum in an earlier part of the year, are transferred, or admitted after discharge (that is, in the eyes of the Central Authority, "re-admitted") into another asylum later on.

Thirdly, there is an important difficulty due to the want of a proper differentiation, for the purposes of the medical statistics of insanity, of the persons admitted into asylums, or of the persons discharged from asylums, and the logical outcome of this essentially medical differentiation of persons raises the further difficulty of instituting a true comparison, upon an equivalent basis, of the persons concerned, whether they be in England, in Scotland, or in

Ireland, and therefore subject to varying legal and statutory conceptions of insane persons owing to differences of lunacy law and lunacy administration in the three countries. For purposes of medical statistics, the persons admitted into asylums and the persons discharged from asylums must be fundamentally differentiated into two natural classes, which we may meantime call Direct and Indirect. Taking first the persons discharged, we recognise that they are either recovered or unrecovered. The *recovered* are persons who leave the asylum as sane and free agents, and *directly* rejoin the sane and free community. The *unrecovered* leave the asylum as insane persons, and therefore continue to live under certificate so long as they remain unrecovered. The persons admitted into an asylum are either *direct admissions* (or *admissions proper*)—that is, *persons coming directly from the community who have not been previously certified as insane during the existing attack*; or *indirect admissions*—that is, *persons who have previously been certified during the existing attack, and who therefore were already insane unrecovered persons, medically and legally, before their admission to the asylum was contemplated*, and whose removal to the asylum in all cases requires further medical certification and legal sanction by judicial or lunacy authorities. It is obvious that for the purposes of medical statistics bearing on the freshly occurring and recurring insanity of the community and of the country at large, only the direct admissions must be considered. They alone will give true information as to what may be called the birth and re-birth, or the production and reproduction, of insanity in the communities served by asylums, and so in the country generally, and to include amongst them the statistics of the indirect admissions is only to introduce falsification and error in the information about insanity. It is medically important to recognise amongst the direct admissions the “first attack” cases, and so for statistical accuracy we would need to differentiate persons directly admitted into (1) persons with first attack; (2) persons with one or more previous attacks; and (3) persons in whom it is unknown whether the attack is the first or not. Similarly, in regard to the recoveries, it is necessary for statistical accuracy, in calculating the *recovery rate*, from the direct admissions (as is the usual way) to differentiate the recoveries of direct admissions and the recoveries of indirect admissions,

and by deducting the latter from the former to arrive at the *net recoveries*, and by taking the percentage of net recoveries on direct admissions we estimate the true recovery rate. The unrecovered, from the point of view of treatment, are distinguished into (1) *improved* (which, I think, is a preferable term to the statutory "relieved," inasmuch as the latter has a distinct significance in Poor-Law administration, meaning "relief" or aid from the rates, and has, to my knowledge, given rise to confusion between asylum and parochial authorities); and (2) *unimproved*, which, being a single adjective, is preferable to the statutory terms "not improved."

And now let us consider for a moment the further differentiation of the indirect or unrecovered admissions, and of the indirect or unrecovered discharges, from the point of view of their movement (immediate source or destination) as regards the asylum concerned, and still regarding them in the broad medical sense as "insane persons" and not as administrative units in the strict statutory sense of England or of Scotland or of Ireland. And here it is necessary to emphasise that the terms of this scheme of classification of the unrecovered persons admitted and discharged are to be interpreted in a medical sense, and that the statistical tables of the association are not statutory, but are essentially medical tables, constructed on the principle of ascertaining the medical truth about the insanity, not only in any one asylum, but in all asylums, and not only in any one of the three countries, but in all three, and possibly in other countries who adopt or imitate our tables, and without at the same time violating the spirit of the law and statutes in any country. The following definitions of the necessary terms are therefore to be interpreted in a medical sense.

Institutions or establishments for the insane include: asylums, registered hospitals, licensed houses, idiot and imbecile institutions, lunatic workhouses, or lunatic poor-houses, or lunatic departments of the same, lunatic State prisons or lunatic departments of the same, lunatic departments of State military and naval hospitals, and we may add colonies for insane epileptics and other lunatics.

In short, "establishments" in the medical sense are for the institutional care and treatment of the insane, with a recognised medical and nursing staff in attendance.

Dwellings for the insane include unlicensed houses for single

certified patients, and in Scotland "specially licensed houses" for two, three, or four insane patients, and in England or Ireland any similar provision which may arise in view of recent or future legislation, which will enable a similar small number of lunatics to be gathered together under one roof for the enjoyment of "home care" as distinguished from institutional care and treatment, which many of them already have experienced, while many others of them have not previously been in establishments. It is, perhaps, hardly necessary to add that an "insane person" may stay in his own residence, being looked after by his relatives who make no "profit" out of the transaction.

With the above medical distinctions of establishments and dwellings, it is now possible to differentiate, in the medical sense, the indirect, or unrecovered, or previously certified insane, admissions and discharges of asylums in equivalent terms for the three countries.

A transfer is an insane person who passes from one establishment to another in the same country.

A transference is an insane person who passes from an establishment in one country to an establishment in another country.

A home care is an insane person who either passes from (discharge) an establishment to the community (either to his own home or to a "dwelling") or who passes from the community (admission) to an establishment.

It will be seen at once that this scheme is of universal application. In the medical sense a lunatic sent from an asylum in England to one in Scotland gives no information about the insanity in Scotland, and so, *in the medical sense*, is an indirect admission—"a transference"—and not a direct admission in the medical sense in Scotland, though he may have been so in England, and though he joins for the first time the General Register of the Central Lunacy Authority in Scotland. I think that the adoption of such a term as "transference" for all such cases would facilitate statistical accuracy and medical utility. Similarly, from direct admissions must also be excluded certified patients already existing as such in the lunatic departments of poor-houses, prisons, idiot and imbecile institutions, and the like, and also what I have termed the home cares (including "boarded out" patients in Scotland, and "single care" patients in England), if accuracy in a medical sense is to be secured for the medical tables.

To sum up, in the annual statistics of insanity in asylums, which are the main source of medical information as to the growth of insanity in the country, and as to the facts of the insanity in the individuals concerned in this growth, and as to the results of the treatment of insanity in asylums, it is necessary in the interests of statistical and medical accuracy to (1) exclude voluntary boarders; (2) to reduce cases admitted and cases discharged to terms of persons admitted and persons discharged, by eliminating the re-admissions and pre-discharges of the current year; and (3) to differentiate medically the persons admitted into direct admissions and into indirect admissions (including home cares, transfers, and transferences), and the persons discharged into recovered and into unrecovered (including home cares, transfers, and transferences), the direct admissions being the only true source of information of the growth of insanity in individuals and in the community, while the results of treatment are expressed by the statistics of the annual discharges and deaths and of the residues at the end of the year.

It follows, therefore, that for purposes of statistical accuracy the groups of persons to be dealt with in the annual medical statistics of an asylum comprise the following:

- (1) Persons admitted: (1) direct; (2) indirect.
- (2) Persons discharged: (1) direct (recovered); (2) indirect (unrecovered).
- (3) Persons dead.
- (4) Persons remaining on the Register on December 31st who are not in any of the preceding groups; that is, therefore, total persons on the Register on December 31st *minus* the admissions of the current year who are still on the register (and who are, therefore, included in the first group), leaving what may be conveniently termed the residue persons, or simply persons remaining.

PART II.

The Statistical Data of Insanity and their Embodiment in a Medical Register of Insane Persons.

Since entering the specialty of psychiatry, it has been my practice to keep, for purposes of private study, records of all the patients who came under my care in asylum work. This is

done by means of a Medical Register of persons, each patient appearing only once in the Register, but provision is made in the last column of the Register—that for “remarks and further history”—for continuing the record of each patient according as he or she comes under observation again in future years. The Register consists of a series of vertical columns, in which provision is made for recording all the statistical data of medical or allied nature likely to be met with in one’s cases. In actually recording the data themselves in the various cases, I endeavour, so far as lies within my power by means of personal observation, inquiry, and judgment, to insure that the data so recorded have the validity of facts, and so may be relied upon as a basis for the study and treatment of the insanities. I find it convenient to keep separate registers for the two sexes. In cases of particular interest I keep special reports filled in on private case-taking schedules, and containing full notes with charts, photographs, patients’ literary effusions and the like. Anyone who has had to compile the statistics for the annual tables will know that such medical registers are an invaluable help. As the Statistical Committee of the Association mention in their Report, the English Commissioners already employ such a register (Annual Register) in the case of the direct admissions, and the suggestion of the committee to employ an annual medical register of admissions will be found most useful in compiling the tables. Such an annual register, from what has been said before, must be essentially a register of persons admitted, and as it is advisable to use separate registers for the two sexes, it will be found useful to enter in each register the direct admissions in black ink and the indirect admissions in red ink. In compiling the medical tables of the last two annual Reports (33rd and 34th) of Ayr Asylum, I have used my own form of medical register, and as this makes provision for practically the whole field of the statistical data of the insanities, I propose to enumerate the thirty heads of the thirty columns of this register *seriatim* below, on the left side of the page; and on the right side is the key to each head, giving a guide to the nature of the entries made in the register itself.

Medical Register for the Statistical Data of Insanity.

(N.B.—Separate Registers for the two Sexes.)

<i>Heads of Columns.</i>	<i>Key to each Head.</i>
1. Number of person admitted (No.)	
2. Direct or indirect admission (D. or I.)	
3. Whence admitted	Home, "dwelling," asylum (name), or other establishment (specify), ordinary hospital, or prison, or poor-house, etc.
4. Name of patient	
5. Date of admission	
6. Chargeability (social status) .	Private, pauper (specify parish), criminal, etc.
7. Family tendencies and members affected, hereditary potentialities	Insanity (father), phthisis (mother and brother), alcoholism (father), cancer (grandfather), etc.
8. Age	
9. Conjugal state	Single, married, widowed, (separated or divorced), unknown.
10. Nationality	English, Scottish, Irish, Welsh, Mixed British, Colonial, U.S.A., foreign (specify), unknown.
11. Religion	Episcopalian, Presbyterian, Roman Catholic, Nonconformist and others (specify), unknown.
12. Education	Unable to read or write; reads only; moderate, <i>e.g.</i> , primary; well educated, <i>e.g.</i> , secondary; highly educated, <i>e.g.</i> , technical or professional; unknown.
13. Occupation, vocation	Clergyman, butcher, shoemaker, farmer, wife of banker, schoolboy, etc.
Occupation, class (Registrar-General's classification)	Professional, commercial, industrial, agricultural (and fishing), domestic, unoccupied, unknown.
14. Habits, as to work, food, drink, tobacco, sexuality, etc.	Hard-working, lazy, gluttonous, intemperate (specify form of alcohol), dissolute, etc.
15. Temperament	Optimistic, pessimistic, moody, reserved, solitary, irritable, excitable, phlegmatic, etc.
16. Mental and nervous diathesis, with ages at onset of any neuroses	Congenitally deficient, eccentric, neurotic, degenerate, hysteria at 20, epilepsy at 13, etc.
17. Previous mental attacks, with form and ages at onset of each.	Mania at 23, melancholia at 45, etc.
18. Bodily diathesis and previous bodily illnesses, with ages	Spare, obese, gouty, rheumatic, diabetic, cancer, sarcoma, tubercle, syphilis at 26, malaria, etc.
 <i>Present Attack or Illness.</i>	
19. Proximate etiological factors, or apparent "causes"	Alcohol, worry, child-birth, etc.
20. Duration on admission of attack, period	A week, 2 months, 3 years, etc.
Duration on admission of attack, class	Recent or acute (under 6 months), sub-recent or sub-acute (6 months to 2 years), persistent or chronic (over 2 years).
21. Suicidal tendency before admission	Threats or attempts (specify form of attempt).

Medical Register for the Statistical Data of Insanity—continued.

<i>Present Attack or Illness.</i>	<i>Key to each Head.</i>
22. Homicidal tendency before admission	Threats or attempts (specify form of attempt).
23. Diagnosis, symptomatological: form	Depression; exaltation; excitement; hallucination and delusion; delirium, confusion and stupor; passivity and resistiveness; obsession; inhibition; moral imbecility and perversion; and enfeeblement (idiocy, imbecility, facility, and dementia).
Diagnosis, symptomatological: degree	Mild or simple, moderate, severe or intense.
Diagnosis, nosological: variety	General paralysis, puerperal insanity, etc.
24. Bodily condition: physique	Deformities, stigmata (specify).
Bodily condition: diseases	Of skin, bones, joints, muscles, glands, blood, and of nervous, circulatory, respiratory, alimentary, and urino-generative systems.
Bodily condition: general health: degree	Fair, poor, or weak.
25. Prognosis on admission	Good, doubtful, bad.
26. Progress during residence	Chief changes, mental and bodily.
27. Treatment during residence	General, or special (specify).
28. Termination (with date)	Recovered, improved, unimproved, died.
29. <i>Post mortem</i>	Cause of death and other <i>post-mortem</i> findings.
30. Remarks and further history	Whither sent, re-admitted on (date), with (specify disease, etc.).

Such a register is, of course, very comprehensive, but it is intended to provide for the recording of all data which may be required in connection with the private study of one's cases. It will be useful to make a few general remarks about some of the data before indicating our selections for the tables dealing with the admissions. *Sex*, of course, is a necessary datum in all medical tables. *Age* is a factor which appears in several tables, and in all of these which have to deal with the statistics of insanity I think that we should indicate the broad mental life-periods of development (under 30 years), maturity (30 to 60 years), and decadence (over 60 years), and divide them merely into decades (under 10 years, 10 to 19, 20 to 29, etc.), and not into quinquennia, which are unnecessarily small and just re-duplicate work without much gain. It should be noticed in passing that the mental life-periods are not co-terminous with the reproductive life-periods. *Conjugal* is the phrase of the census Blue-books, and so is probably preferable to "marital state," and still more to "civil state." *Nationality* may become an interesting factor in connection with questions of alien immigration, and insanity as a genetic variation, but its true significance in relationship to insanity, like that of *religion*,

with which it could be instructively correlated in a table, and, in fact, like the true significance of conjugal state, age, and sex also, all of these being biological and sociological rather than etiological factors proper, could probably be intelligently gauged only in terms of a census of the population on these points, and this, of course, would be possible only once in every ten years; so for statistical purposes in relationship to insanity the annual inclusion of some of these data is of questionable value.

Duration of mental illness.—This also is a factor which appears in several tables, and here, too, while recognising appropriate smaller periods in each class, I think that, as in disease generally, we should indicate a broad division into three classes according as the attack of insanity is recent or acute (under six months), sub-recent or sub-acute (six months to two years), and persistent or chronic (over two years). The taking of one year as the limit of the term “recent,” and the recognition simply of “chronic” in contradistinction to it, to the exclusion altogether of sub-acute, is, I think, inadvisable; for one year is both too long a period in which to regard a case as recent or acute and too short to regard it as chronic. In this connection I would desire to draw attention to the very prevalent misuse of the terms “acute,” “sub-acute,” and “chronic” in the literature and daily parlance of psychiatry, these terms being employed in psychiatry to express the degree of “intensity” instead of the length of “duration” of the disease, this use—or rather abuse—of terminology being entirely at variance with the usage in general medicine. Disease, generally speaking, may be said to be due to the action of an “irritant,” in the wide sense, upon an individual. Each of us may be said to be (1) what our parents and ancestry have made of us (our inherited organisms, qualities, and potentialities); (2) what environment has made of us (especially in our tender years, when we could not help ourselves); and (3) what we make of ourselves; and with knowledge we may outgrow adverse hereditary potentialities, and the results of adverse environment we may neutralise more or less; for, as a wise physician hath said, “Nature forgives, but never forgets.” And so at any given time in life the strength or resistive power of the individual is the sum of these three factors, and the action of the “irritant” on him depends upon its strength and length of application, and accordingly the disease which may or may

not result, is said to be, as regards the virulence of the process, mild or simple, moderate, severe or intense, and as regards the duration of the process, acute, subacute, chronic. What is more common in psychiatry than to hear "acute mania" spoken of or described in the books where "severe mania" is meant? And who has not heard a chronic maniac during one of his attacks, described as being "acutely maniacal"? How a person can be described as being at one and the same time both acutely and chronically ill is difficult of comprehension in the ordinary medical meanings of these terms. The misuse is most common in the case of the terms "acute" and "sub-acute," these being employed to describe the degree of severity of the symptoms and disease present, instead of the proper terms for this purpose "severe or intense" (instead of "acute") and "moderate" (instead of "sub-acute"). I have formerly drawn attention to this matter in the pages of the Journal, but psychiatrists have so got into the habit of misusing the terms "acute," "sub-acute," and "chronic," that it would almost seem advisable to suggest that these terms should meantime be given a rest in psychiatry, and that such terms as "recent," "sub-recent," and "persistent" be employed instead to express degrees of duration of mental disease.

I thought that it might not be uninteresting in connection with this matter of terminology to take the opinion of three eminent men in the medical world, who are generally recognised as being careful in their use of terms and at the same time worthy of imitation in their literary styles. My selections were Sir William Gowers, Professor Clifford Allbutt, and Professor Osler.⁽¹⁾ Sir William Gowers writes: "I entirely agree with you. . . . I should myself speak of acute mania passing into chronic insanity with reference only to duration." Professor Clifford Allbutt writes: "I do not think there can be a moment's hesitation in answering your question concerning the meaning of 'acute' and 'chronic' in medicine. Acute means, say in Hippocrates, etc., a quick or hasty disease. . . . Scarlet fever, however mild, would be an acute malady. . . . All the best medical writers have always used 'acute' in the above sense."

Surely with such testimony it is desirable to keep the terminology of psychiatry in harmony with that of medicine in

general. Another point in connection with the duration of an attack of mental illness, for which treatment in an asylum becomes necessary, is the important question, When is the attack to date from? From the time of onset of the mental symptoms or from the time of the "insanity" proper—that is, the date of certification? Here we would seem to be on the horns of a dilemma, for we are dealing with the statistics of "insanity," and yet the illness must have been going on for some time before the actual date of certification. The midway stage of "certifiability" is altogether too vague and indefinite to be of any assistance. Now, when it was decided that the statistics of the tables were to mean the statistics of "insanity," this decision was made for the purpose of, in the first place, defining the group of persons to whom the statistics should refer; but once that this is done, we must obviously regard our patients in the medical aspect for purposes of medical statistics, and so make the duration of the disease date from the time of onset of the earliest morbid mental symptoms. To do otherwise would simply mean that there was no such thing as the duration of insanity on admission—an impossible view; and again, for purposes of diagnosis and especially of prognosis, the duration of the illness before admission is an essential datum in forming an opinion. If the patient is congenitally deficient, or has a neuropathic diathesis, and becomes the subject of a distinct attack of insanity, as such are especially prone to do, these facts are recorded, and the attack is dated from the time of onset of the unusual mental symptoms.

What, then, are the statistical data which it would seem most useful to select for the tables dealing with the *direct admissions*, from which we derive our reliable information as to the new insanity of individuals, and of the community and country generally? Sex, age, and conjugal state (? nationality and ? religion); education and occupation; hereditary potentialities; occurrence of previous attacks, with age at first attack; duration of illness on admission; etiological factors, including all pathological conditions, bodily and mental, crises and other events which are associated with the attack, apparently in the relationship of cause to effects; suicidal and homicidal tendencies before admission; mental state on examination; bodily state on examination; diagnosis and prognosis.

In the case of the *indirect admissions* is it necessary to record the same or any of these data, keeping them, of course, distinct from the corresponding data of the direct admissions?

The indirect admissions will give no information as to the new insanity of the community. The transferences, the transfers, and the great majority of home cares have already been direct admissions in some other institution, and so have already yielded the information required of them as such, at the time when it was of statistical value to the physician and to the country. The only new points about them are: (1) an increase in age and a corresponding lengthening in the duration of their attack; (2) a possible alteration in bodily health; (3) a possible alteration in the mental diagnosis, and in the great majority a probably increased mental reduction; and (4) consequently a probable alteration for the worse in the prognosis. These points (age, duration, diagnosis, etc.) can easily be recorded as parallel insertions in the corresponding tables for the direct admissions. The chief reason, however, for recording the statistics of the indirect admissions is not so much a medical as an administrative one. It is to meet the case where a large number of transfers are sent to an asylum, say in its year of opening, or perhaps in some subsequent year. They may thus dominate the character of the total admissions, but they are clearly differentiated from the direct admissions for statistical purposes, and, of course, if numerous, they will materially affect the character and prognosis of the resident population. As to the *discharges*, the chief points in connection with the *recoveries* which it is useful to know are: the diagnosis of the insanity from which they have recovered; the duration of attack on admission, length of residence (and the length of residence for statistical purposes must be held to include absence on pass or probation), total duration of the attack, and the age on recovery. It is doubtful whether much information of medical value can be learned from the *unrecovered*, so many of them being removed simply for administrative reasons, but the diagnosis may, if desirable, be recorded by means of a parallel column in the corresponding table for the recoveries. It will be seen that the medical points in connection with the discharges are comparatively few in number, and they could easily be provided for in the register of discharges, which would thus become a medical as well as a civil register.

As to the *deaths*. The chief statistical points of interest are the age at death, the cause of death (and whether ascertained by *post-mortem* examination or not), and the duration of the attack, showing the period before admission and the period after admission (length of residence). It is doubtful whether it is of any value to show the diagnosis of the previous mental state in those who died; mental states don't kill, but insanities do; for example, general paralysis, paralytic insanity, epileptic insanity, and many cases in which the death is attributed to exhaustion, but is more probably due to a toxæmia resulting from some morbid bodily condition, *e.g.*, catarrh of the stomach and intestines. If there were a proper nosological classification of the insanities, there would be some show of reason for correlating the mental disease—which is a bodily disease with mental symptoms—with the fatal bodily disease. It will be seen that the medical data in connection with the annual statistics of the deaths are few in number and could without difficulty be incorporated into the civil register of deaths.

As to the *residues*. As these include all persons on the asylum register at the end of the statistical year, except those admitted during the year reported upon, it is obvious that they comprise the main bulk of the population in most of our asylums, and represent mainly unrecoverable patients, though a few of them do ultimately recover, and many of them improve sufficiently to rejoin the community later on, where they live under the care and supervision of relatives, friends, or others. The chief points about the residues for statistical purposes are the age, total duration of the insanity up to date, diagnosis, and prognosis as to recovery and improvement.

PART III.

The Construction of Medical Tables for the Annual Statistics of Insanity in Asylums.

The most instructive method of dealing with the medical statistics of insanity would be that which is adopted by the psychiatrist who publishes the results of his observations on the study and treatment of any special variety of insanity. He is dealing with the statistics of persons whose mental disease has come under his observation and has been treated to a finish, ending in recovery, improvement, non-improvement, or

death. He takes, say, a definite variety of insanity, such as general paralysis, epileptic insanity, alcoholic insanity, and so on, and in connection with each would deal with as many points as he has kept a record of in his Medical Register of patients observed, showing, for example, in the case of each variety of insanity, and expressing in percentages, where possible, the following statistics :

(1) The persons with hereditary potentialities towards insanity, phthisis, alcoholism, or any of the other so-called hereditary affections.

(2) The persons exhibiting original mental deficiency, or an insane or neurotic diathesis, and those with a previous attack or attacks of insanity (with average age at onset of first attacks).

(3) The previous bodily illnesses, with average age at onset of each (*e.g.*, epilepsy, hysteria, tubercle, alcoholism, syphilis, etc.).

(4) Average age at onset of present illness.

(5) Conjugal state.

(6) Occupation groups.

(7) Duration on admission.

(8) Apparent causal factors.

(9) Symptomatological forms of the disease.

(10) Bodily conditions present.

(11) Termination in recovery, improvement, non-improvement, or death. If there were a true nosological classification of the insanities, this would also be the most instructive way of dealing with insanity statistics in asylums, but of course the method would be applicable in the annual statistics only to those patients who had been treated to a finish during the year reported upon, and probably not to all of them, those patients being excluded who had left the asylum before a final issue as to recovery or non-recovery had declared itself. The psychiatrist's method of dealing with insanity statistics would thus cover only a limited number of persons dealt with in the annual statistics of asylums; and while it might be well worthy of consideration to include such a table for a specified list of the insanities agreed upon by all as distinct nosological entities (this is almost too Utopian a suggestion for practical politics amongst alienists at present, but I think the time will come), the asylum physician has to deal statistically with all his patients, and consequently I now propose to submit a series of tables suitable for asylum statistics, and carrying out the ideas sug-

gested in the preceding parts of this paper. These tables (except the first) are not printed in tabular form, in order to avoid encroaching unduly on the valuable space of the Journal. This, of course, will not make the tables so clear as a pictorial representation would do ; but given the essential headings, my readers will be able to imagine the rest.

TABLE I. GENERAL.—*Showing the Statistical Analysis of the Movements of Population and Results of Treatment in the Asylum during the Year 19 .*

(N.B.—Only certified patients referred to in the tables. For voluntary boarders, see last table.)

	Male	Female	Total
On January 1st, 19 —			
Total persons on asylum register, of whom there were—			
Persons resident in asylum			
Persons absent on pass or probation			
<i>Total cases admitted during year—</i>			
<i>Minus re-admissions of current year, owing to—</i>			
1. Onset of another attack			
2. Relapse during existing attack			
3. Expiry of interim order			
4. Expiry of emergency certificate			
5. Irregularity of admission papers			
And <i>minus</i> re-re-admissions of current year, owing to (specify reasons)			
Thus leaving <i>total persons admitted during year, vis.—</i>			
1. Transferences (specify countries and establishments)			
2. Transfers (specify establishments)			
3. Home cares			
<i>Total indirect admissions</i>			
4. <i>Direct admissions</i> , of whom there were—			
1. Persons in whom unknown whether first attack or not			
2. Persons who had had one or more previous attacks			
3. Persons with first attack			
Total cases under treatment during year			
Persons under treatment during year			
<i>Total cases discharged during year—</i>			
<i>Minus pre-discharges of current year, owing to (specify reasons)</i>			
Thus leaving <i>total persons discharged during year, vis.—</i>			
1. Transferences (specify countries and establishments)			
2. Transfers (specify establishments)			
3. Home cares			
<i>Total indirect or unrecovered discharges</i>			
Of whom there were <i>improved</i>			
And <i>unimproved</i>			
4. <i>Direct discharges or recoveries</i> , of whom there were—			
1. Recoveries of direct admissions, <i>minus</i>			
2. Recoveries of indirect admissions			
Thus leaving <i>net recoveries</i>			
Deaths during year			

TABLE I. GENERAL—*continued.*

	Male	Female	Total
Total cases discharged and died during year			
Persons discharged and died during year			
On December 31st, 19 —			
Total persons on asylum register, of whom there were—			
Persons resident in asylum			
Persons absent on pass or probation			
Average daily number on register during year			
Average daily number resident during year			
<i>Recovery rate</i> during year (percentage of net recoveries on direct admissions)			
<i>Death rate</i> during year (percentage of deaths on average daily number on register)			
Residue persons resident on December 31st, 19			

Comments.—If there are both rate-paid and private patients in the asylum, separate columns and a total column can be easily substituted for the three columns shown for males, females, and total. Definitions of the terms transferences, transfers, home cares, indirect admissions, indirect discharges, direct admissions, and residues have been given in Part I of this paper, and would be appended as footnotes to this table. The advantage of placing such a table first is that it defines precisely the terms employed to demarcate the groups of persons to whom the statistics apply in all the subsequent tables. The death rate is calculated on the average daily number on the Register, because, even though a person be on probation (say) and die, the death is included among the asylum deaths for the year. The average daily number resident during the year is added merely for convenience of financial considerations, in order to calculate annual rate of maintenance, absence on pass or probation being allowed for in making out the asylum accounts.

TABLE II. *General.*—Showing a general survey of the movements of population and results of treatment in the asylum for each year since its opening in

The heads and sub-heads of this table are, of course, arranged horizontally, and from left to right read as follows:

(1) Year.

(2) Persons on Asylum Register on January 1st of each Year (M., F., T.).

(3) Admissions { Total Cases (M., F., T.).
Direct (Persons) (M., F., T.).
Indirect (Persons) (M., F., T.).

- (4) Total Persons under Treatment (M., F., T.).
- (5) Discharges $\left\{ \begin{array}{l} \text{Total Cases (M., F., T.).} \\ \text{Recovered (Persons) (M., F., T.).} \\ \text{Improved (Persons) (M., F., T.).} \\ \text{Unimproved (Persons) (M., F., T.).} \end{array} \right.$
- (6) Deaths (M., F., T.).
- (7) Average Daily Number on Asylum Register (M., F., T.).
- (8) Recovery Rate (Percentage of Net Recoveries on Direct Admissions) (M., F., T.).
- (9) Death Rate (Percentage on Average Daily Number on Register (M., F., T.).
- (10) Numbers of each Year's Persons admitted remaining on Register on December 31st, 19 (M., F., T.).
- (11) Year.

Comments.—This table embodies the essential information of the present Tables II and III, and of the last column of present Table IV, which is an interesting fact to record in a general survey, namely the survivals of each year's admissions who still remained on the Asylum Register at the end of the year reported upon.

Other tables of a general nature are probably more suitably left to an optional group of tables coming at the end of the series. For example a table, like the present Table II A, showing the admissions and recoveries of persons as distinguished from cases since the opening of the asylum, or as far back as possible, is undoubtedly interesting, but so troublesome that but few asylums present it. There are things to be said both for and against such a table; but though the psychiatrist finds it most interesting and valuable to follow his cases through in this way, and to keep records of their re-appearances after recovery, the labour spent in doing this annually in asylums would be more profitably spent in an investigation into the subject of recurrent insanity, folie circulaire, and the like. A table showing the ratio of insanity to population in the community served by the asylum, where this is a definite census area, is a similar table of more local interest, and the data are procurable from the census returns and lunacy Blue-Books. This table would be most valuable in census years, and also in census years tables showing the sex and age distribution of the population, and the conjugal state, nationality, and religion, so that the direct admissions might be compared

with the prevalent conditions in regard to these points. A table showing the chargeability of rate-paid patients to the various parishes or unions, etc., served by the asylum, will indicate in a rough way the distribution of insanity in the community served by the asylum when this covers a wide area. A table showing the monthly incidence of admissions, discharges, and deaths is also of local interest, but is of little value except in relation to fatal epidemics.

TABLE III. *Admissions. Age and Conjugal State.*—Showing in the direct admissions during 19 the ages in main mental life-periods, and decades, correlated with the conjugal state in single, married, and widowed groups; and similarly but separately the ages in the indirect admissions during 19 .

Comments.—The heads of the table from left to right would be ages, direct admissions (single, married, widowed, unknown), total, indirect admissions. And the ages column would be subdivided thus: under 10 years, 10 to 19, 20 to 29 (total period of mental development); 30 to 39, 40 to 49, 50 to 59 (total period of mental maturity); 60 to 69, 70 to 79, 80 years and over (total period of mental decadence); grand total.

TABLE IV. *Admissions (direct). Occupation and education.*—Showing in the direct admissions during 19 the occupations in main classes correlated with the state of education.

Comments.—The heads of this table from left to right would be: occupations, education (unable to read or write; able to read only; moderately educated, *e.g.*, primary education; well educated, *e.g.*, secondary education; highly educated, *e.g.*, university or college education; unknown). The occupations column would show merely the Registrar-General's main classes—namely, professional, commercial, industrial, agricultural, fisheries, domestic, unoccupied, unknown. It would hardly serve any useful purpose to give in detail the actual vocations of individual patients, because the numbers for each vocation are too small in any one asylum to be of statistical value; and the summarising of the actual vocations included in each occupation class would be best left to the Central Lunacy Authority of each country, who can obtain this information from its civil register, or from the copy of the annual Medical Register which it is suggested should be supplied from each asylum.

TABLE V. *Admissions (direct). Heredities.*—Showing amongst the families of the direct admissions in whom a good family

history was obtained the percentage of families acknowledging "hereditary affections" (specified).

Comments.—The heads for this table, which I have employed in the 34th Annual Report of Ayr Asylum (1904), are as follows, from left to right: "Hereditary" affections; first degree, parents (both parents, father only, mother only); second degree, brothers and sisters (two or more, brother only, sister only); third degree, grandparents (both sides, one side only); fourth degree, uncles and aunts; fifth degree, cousins, remote and indefinite relatives; number of families acknowledging heredities (each disease acknowledged to be present in any family to be recorded only once—namely, in the column for the nearest relative affected by it); and percentage of families acknowledging heredities. The "hereditary" affections column is differentiated thus: psychosis (congenital, acquired); neurosis (hysteria, epilepsy, chorea, asthma, etc.); paralysis (chiefly apoplexy); metabolic diseases (chronic rheumatism, chronic gout, diabetes); malignant tumours (carcinoma, sarcoma); chronic infections (tubercle, syphilis); other bodily diseases ("heart" disease, Bright's disease, etc.); congenital bodily deformities, bad habits (alcoholism, and vice, vagrancy, crime, etc.)

TABLE VI. *Admissions (direct). Previous attacks and age on first attack.*—Showing in the direct admissions during 19 the number of previous attacks, correlated with the ages (in main mental life-periods and in decades) on first attack. The heads of this table would be, from left to right, direct admissions, and ages on first attack, viz., development (under 10, 10 to 19, 20 to 29); maturity (30 to 39, 40 to 49, 50 to 59); decadence (60 to 69, 70 to 79, 80 years and over); total. The direct admissions column is differentiated into (1) persons with no previous attack; (2) persons with one previous attack; (3) persons with two previous attacks; persons with more than two previous attacks; (5) persons in whom it was unknown whether this was first attack or not.

TABLE VII. *Admissions (direct). Etiological factors*, showing the causal and associated factors of the attack in the direct admissions during 19 , as ascertained from the personal history and state on examination, their total incidence, and the instances in which they were regarded as the main or chief factor in the pathogenesis of the attack.

The heads adopted in the 34th Ayr Report are, from left to right, etiological factors as ascertained from the personal history and state on examination, total incidence of factors, and instances in which regarded as the chief factor.

The *etiological factors* column is differentiated into the following main divisions (the individual factors cannot be given in detail here): (i) psychoses (congenital mental defects, neuro-insane diathesis without previous attack, neuro-insane diathesis as evidenced by previous attack); (ii) neuroses; (iii) paralyses; (iv) metabolic diseases; (v) malignant new growths; (vi) chronic infections; (vii) acute infections; (viii) traumata; (ix) other bodily diseases, etc. (congenital deformities and stigmata, and diseases of skin, fat, bones, joints, and muscles, blood-glands and blood, circulatory organs, respiratory, alimentary, urinary, and generative organs); (x) epochal and reproductive crises; (xi) bad habits; (xii) mental factors (emotional strains and crises). The influence of "heredity" is shown in Table V.

Comments.—To correlate the list of etiological factors in the left-hand column with the same groups of factors arranged as a horizontal heading would, in my opinion, prove nothing more in such a table, which deals with "all sorts and conditions" of insanity, than what we know already, namely, that in hardly any attack of insanity is there only one causal factor, and that in most attacks there are several such factors. Such a table of correlated factors would simply have the effect of showing the possible number of combinations of the causal factors of insanity, for insanity generally. If, on the contrary, in any particular variety of insanity, *e.g.*, general paralysis, the incidence of the various factors were shown, this would be valuable; but for this purpose the incidence of the actual factors themselves, and not of groups of factors, would be necessary.

TABLE VIII. *Admissions (direct)*, showing the suicidal and homicidal tendencies before admission in the direct admissions, distinguishing between threats and attempts, and specifying the form of the latter.

TABLE IX. *Admissions. Diagnosis.*—Showing in the direct admissions on admission during 19 the symptomatological diagnosis (forms of mental disorder, or morbid mental states), correlated if possible with the nosological diagnosis (true varieties of insanity); and the symptomatological diagnosis in the indirect admissions during 19 .

Comments.—As this table must provide for the inclusion of any form or any variety of insanity which may be exhibited by any patient admitted into our asylums, it must virtually contain a classification of mental diseases; and if there is to be a classification, it must be a logical classification. Any scientific classification must at the least be logical. Thus it is unscientific and illogical to group forms of insanity and varieties of insanity as equivalent “members” in the same classification scheme, as in present Table XI. We may classify mental diseases according to the time element only, as the ancient physicians did with diseases generally, and say of them that at the time of admission they were acute or recent, subacute, and chronic or persistent; or we may differentiate them according to their degree of intensity into mild or simple, moderate, and severe or intense; or we may divide them into the suicidal only, the homicidal only, the both suicidal and homicidal, and the neither suicidal nor homicidal. But when a classification of diseases is spoken of what is generally pictured in the mind is a nosological arrangement of diseases, according to a clinical symptomatology associated with an underlying pathology and a more or less known etiology. Pathology and symptomatology are the anatomy, chemistry, and physiology of the body—typical in the majority of the race, atypical in the predisposed—perturbed or run riot under the influence of some “irritant” or combination of “irritants.” It is possible, even probable, that the aforesaid tripod forms an insufficiently wide basis, a too limited number of *fundamenta divisionis*, upon which to rear a true nosological or natural classification of the insanities, for biological and sociological and other considerations loom largely in the world of mind and its maladies. However, for present purposes, for the purposes of a classification of mental diseases which will suit the needs of any physician engaged in asylum work, we must select that leg of the tripod which is established most firmly, that aspect of insanity which is most accessible to direct observation, and about which therefore there will be least variety of opinion, though even here there is by no means unanimity, for in the world of mental phenomena different people see the same things differently. A classification of mental diseases according to the morbid mental states (forms of insanity) exhibited by insane patients and therefore accessible to direct observation by the clinician, would therefore, in the

present state of our knowledge, seem the most suitable for use in the medical statistics of asylums. Such a classification is essentially one of morbid mental physiology, in other words morbid psychology, and so includes the various morbid manifestations of the "faculties" of knowing, feeling, and willing, of desires, instincts, moral sense, and the like; and in labelling each of our patients with the symptomatological name of his disease, we must select that morbid mental symptom, state, or phase which at the time of observation seems to be the essential feature of the clinical picture. As we know, various mental symptoms or phases are often present in the clinical picture at one and the same time; for example, excitement in a melancholiac (in whom the opposite phase of passivity, passing perhaps into resistiveness, is the more common accompaniment), or in a delusional case, or in a dement; and in all such conditions it is necessary, for "labelling" purposes, to select the more constant, more permanent, feature—in the above cases the depression, the delusions, the mental enfeeblement—as being more truly descriptive of the real mental state of the patient. With these few explanatory remarks I would suggest that the following list of morbid mental phases—what may be called the cardinal symptoms of mental disease—makes provision for all the morbid mental states exhibited by insane patients to the clinician:

- (1) Morbid depression.
- (2) Morbid exaltation.
- (3) Morbid passivity and resistiveness.
- (4) Morbid excitement.
- (5) Morbid inhibition.
- (6) Obsession.
- (7) Morbid impulse and desire.
- (8) Delusion, hallucination, and illusion.
- (9) Delirium, confusion, and stupor.
- (10) Mental enfeeblement, with its varieties—idiocy, imbecility, facility, dementia.
- (11) Morbid moral sense.

I have avoided the terms "melancholia" and "mania" because if "melancholia" be substituted for "morbid depression" then it would be expected that "mania" should be substituted for "morbid exaltation," whereas the term "mania" is more truly applicable to "morbid excitement." Where morbid excitement is the essential mental state we always describe the

patient as being maniacal, and the maniac may be happy and hilarious, or furious and angry, or quite commonly may present no particular emotional phase, being just excessively excited, mentally and motorially. In its original meaning the term "*μανία*," madness, frenzy, meant the madness of the raving, raging lunatic. It is true that exaltation is commonly accompanied by excitement, just as depression is commonly accompanied by the opposite condition of passivity, but it would seem advisable to differentiate these four conditions, because each of them may be met with by itself as a characteristic mental state or phase amongst insane persons. Just as exaltation and depression are the morbid phases of the two normal antithetical states of pleasurable and painful feeling, so may excitement and passivity (with or without resistiveness) be regarded as opposite phases in the executive stage of action. But preceding this executive stage is the deliberative stage, in which motives and impulses to action are weighed and scrutinised. Morbid inhibition expresses the condition met with in that comparatively small number of insane persons who, though quite clear in their intellectual faculties, characteristically cannot "make up their minds"; they cannot decide to which side the arm of the balance of motives is to fall, and so they constantly are in a state of undue hesitancy and doubt, which is the essential feature of the mental state. Obsession expresses the condition in which some particular "imperative idea," notwithstanding due deliberation, dominates all other motives and impulses and impels to action. Morbid impulse and desire express the condition in which there is no real deliberation between motives at all, but simply the sudden arising of an overwhelming impulse or desire to action, which is carried out at once on the spot, regardless of consequences or of any warning by the moral sense, which in these cases seems to be temporarily obliterated. Delusion, hallucination, and illusion are derangements of intellectual faculty which are so commonly met with together that they are best grouped conjointly as one mental state; and, indeed, though in many cases they are distinguishable, in some cases it is impossible to distinguish them; for example, can anyone say that a delusion as to the identity of, say, the doctor, is not in some cases an illusion of sense-perception? Similarly, delirium, confusion and stupor form parts of a conjoint mental state, and though it

is possible in many cases to say that the delirium or the confusion, or the stupor predominates, in a number of cases it is impossible to differentiate delirium from confusion, or confusion from stupor, and so it would seem best to group these as one mental state. It may be said that there is just the same difficulty in telling where stupor ends and dementia begins, but until we are certain of the dementia it is best to regard the state as stupor; for there can be no doubt as to the advantage to the psychiatrist of having a distinctive term like "dementia" to denote the condition of terminal and incurable acquired mental enfeeblement in which so many of our patients unfortunately end; and, again, we know that a dement may become stuporose, or confused, or even delirious, the mind that still remains being in some cases capable of such manifestations. Idiocy, imbecility, facility, and dementia are forms of mental enfeeblement differing from one another according to the time of life at which the enfeeblement occurs and according to the degree of enfeeblement present. Possibly it might be advantageous to recognise a fifth form of mental enfeeblement, namely, that minor degree of imbecility which may be called "defectiveness," and which is partially distinguishable from facility, and so amongst insane persons who are enfeebled in mind it would be possible to differentiate and to speak of idiots, imbeciles, defectives, faciles, and dements. It is perhaps advisable to mention that the terms "idiots," "imbeciles," and "defectives" include, not only the congenital, but also the acquired cases, and that when, say, "congenital idiocy" is spoken of, we are talking, not only of a form of mental disorder or morbid mental state, but also of a variety of insanity. Similarly, morbid moral sense, or the condition in which the moral sense is deficient or perverted, is met with both in congenital cases and in the subjects of acquired moral deterioration.

The above-mentioned list of eleven morbid mental states may therefore be said to form a classification of the forms of mental disorder. Like any other artificial classification, it has only one *fundamentum divisionis*, or principle of division, namely, the chief mental symptom, phase, or state exhibited by the insane patient at the time of observation; and, further, it is a logical classification because (1) "morbid mental state, phase, or symptom" can be predicated of each of them; (2) each mental state represents a definite group of individuals; (3) the eleven mental

states are mutually exclusive, there is no "cross-division"; and (4) the eleven mental states apparently comprise all the morbid phases exhibited by insane persons. Finally, it is a practical working classification for the asylum physician, for it should not be difficult for him to decide in each case what is the essential morbid mental feature present at the time of examination—and by "time of examination" one does not mean the actual moment of examination. As in the case of any other disease in which a diagnosis is being made, the physician must be acquainted with the "history" of the illness, and must have the patient under observation a sufficiently long time in order to interpret the relative significance of the symptoms present.

Nosological diagnosis.—A "natural" classification of the insanities has not yet been arrived at by psychiatrists, though there have been many attempts. The term "diagnosis" is used properly only in reference to the terms of such a classification. There are, however, several well-recognised nosological varieties of insanity, and unless provision is made for them in a classification table no asylum physician will rest satisfied, and rightly so. The only way, then, in which this can be done, the principle of a symptomatological classification for all cases having been accepted, is by means of correlation. Consequently, the symptomatological classification will form the left-hand column of the table, and the nosological varieties decided upon will occupy each a column to the right; *e.g.*, congenital insanity, general paralysis, alcoholic insanity, and as many other varieties of insanity as can be diagnosed; and those cases in which a nosological diagnosis cannot be made should be grouped together in a column headed "varieties unknown"; and as probably only a symptomatological diagnosis will be attempted by asylum physicians in the case of the indirect admissions, the final column to the right hand will conveniently be retained for these cases, and so headed "indirect admissions." In the 33rd and 34th Ayr Reports for convenience of printing I have put the nosological classification in the left-hand column of the table, and the symptomatological forms in a series of columns to the right. I do not intend to enter into the subject of a true nosological or "natural" classification of the insanities here. Such a classification cannot be merely anatomical, or physiological, or psychological, or sociological, or biological, or etiological, or pathological, or

symptomatological ; it must be all these, for mind and the insanities include all these aspects. I do not even propose to suggest a minimum list of varieties of insanities which it would seem desirable to include in such a table, because of the variety of opinion in the matter. I shall merely mention two, congenital insanity and general paralysis, and even of these there are some who will deny that they are nosological entities. Be that as it may, the subject of congenital insanity comes into this world with a brain which sooner or later declares its possessor to be a congenital idiot or a congenital imbecile. It does not concern us so much here to know the past history of that brain, although this is an interesting branch of study ; we are more concerned as to its behaviour in the future, and we find that the congenital imbecile, and naturally to a less extent the congenital idiot, may exhibit attacks of insanity in the more ordinary sense, and so may become morbidly depressed, exalted, excited, impulsive, stuporose, and the like, and may even become still more enfeebled in mind or demented than before ; and further, these morbid mental manifestations do not in all cases arise simply because the subject is a congenital idiot or imbecile, but often come about in the same way as do attacks of acquired insanity in other individuals. Thus many imbeciles who are sent into asylums in a state of maniacal excitement are more truly congenital imbeciles with the "mania" of adolescence. In short, congenital cases start life as idiots and imbeciles ; and imbeciles, and to a less extent, of course, idiots, who have hardly any "mind" at all, may take attacks of true insanity as distinguished from mere morbid mental phases. In order to bring out in the classification table the fact that congenital idiots and imbeciles may become morbidly excited, etc.—for it is this reason which often sends them into asylums—I would suggest that the "congenital insanity" heading be divided into idiots and imbeciles ; and if there is nothing more than the idiocy or imbecility present this can be recorded opposite the idiocy or imbecility in the symptomatological column, whereas if the idiot or imbecile is characteristically excited or stuporose or the like, the fact can be recorded opposite these symptomatological forms. Similarly, the general paralytics would be differentiated according as they on admission are characteristically depressed, exalted, resistive, excited, impulsive, delusional, confused, stuporose, facile, or demented, for a general paralytic may exhibit

all these phases in the course of his disease; and what is also true, he may exhibit none of them to such a morbid extent that he requires asylum treatment. Many a general paralytic can be, and is, treated at home or in hospital.

TABLE X. *Admissions; intensity of the attack on admission.*—Showing in the direct admissions, and separately in the indirect admissions during 190 , the intensity of the mental states and bodily conditions on admission, in three main classes.

Comments.—This table is an attempt to consider in juxtaposition the characteristic mental state and the bodily health with a view to prognosis. It is impossible in such a table to consider the mental and bodily conditions apart. Thus, if a diagnosis of general paralysis has been made, the case is serious and must go into the third class, even though the mental state be one merely of mild depression, mild exaltation, mild excitement, or mild confusion. For the purposes of this table both the mental states and the bodily conditions must be differentiated into three grades of clinical importance, and the mental state and the bodily health must be judged separately, each on its own merits; if both pass the first test the case is “mild or simple”; if either fails to pass the first test, and if either is second class or third class, the case is “moderate” or “severe” accordingly. There is, of course, great room for variety of opinion in such a table, but I would suggest the following tests for the three classes:

First class: mild or simple.—(a) *Mentally*, mild degrees of morbid depression, exaltation, excitement, delirium, or confusion; and (b) *bodily*, health fair, not specially below par, and no local disease or injury of consequence.

Second class: moderate.—(a) *Mentally*, more marked degrees of the preceding mental states, or the presence of passivity and resistiveness, hallucination, delusion, or stupor; or (b) *bodily*, health poor, distinctly below par, or some local disease or injury of distinct significance.

Third class: severe.—(a) *Mentally*, still more marked degrees of the preceding mental states, or the presence of morbid inhibition, obsession, morbid impulse, morbid moral sense, idiocy, imbecility, facility, or dementia; or (b) *bodily*, health weak, much below par, or some local disease or injury of serious significance.

TABLE XI. *Admissions : duration of the attack on admission.*—Showing in the direct admissions, and separately in the indirect admissions during 19 the duration of the attack on admission, in three main classes.

First class : recent or acute (under 6 months).—Differentiated into: under 1 week, 1 week to under 1 month, 1 month to under 3 months, 3 months to under 6 months.

Second class : sub-recent or sub-acute (6 months to under 2 years).—Differentiated into: 6 months to under 1 year, 1 year to under 1½ years, 1½ years to under 2 years.

Third class : persistent or chronic (2 years and over).—Differentiated into: 2 years and under 5 years, 5 years and under 10 years, 10 years and over. As a footnote to this table there may be added: "Of these there were congenital cases, M. , F. , T. ."

TABLE XII. *Admissions ; prognosis on admission.*—Showing in the direct and separately in the indirect admissions during 19 the prognosis as to recovery on admission, in three classes: 1st class, good; 2nd class, doubtful; 3rd class, bad.

Comment.—This table is the sequence of Tables IX, X, and XI.

TABLE XIII. *Discharges (recoveries) ; diagnosis (final) of attack and age on recovery.*—Showing in the recoveries during 19 of direct admissions, and separately of indirect admissions, the symptomatological diagnosis, correlated if possible with the nosological diagnosis, and with the ages on recovery in main mental life-periods and decades.

Comments.—It would, of course, be more instructive to put the column of nosological diagnosis to the left so as to correlate it with (1) forms of mental disorder, and (2) ages on recovery; but as many would object to such a proposition it would be necessary to put the column of forms of disorder to the left hand, and to correlate them, as in Table IX, with such varieties of insanity as were diagnosed or unknown, and then further to the right to correlate them with the ages on recovery, arranged as in Table III. Then the comparatively few indirect admissions who recover could be shown in two or three lines at the foot of the table, under the same headings.

TABLE XIV.—*Discharges (recoveries). Duration of attack on admission and length of treatment.*—Showing in the recoveries during 19 the duration of the attack on admission, corre-

lated with the length of residence; and separately the total duration of the attack.

Comments.—The heads of the columns from left to right would be (1) duration of attack on admission, differentiated down the left side as in Table XI; (2) length of residence (differentiated into similar periods); (3) totals; and (4) total duration of attack.

TABLE XV. *Deaths; causes of death, sex, and number of post-mortem examinations made, correlated with the ages at death in main mental life periods and decades.*

Comments.—The heads run as above mentioned from left to right. The causes of death column embraces: (1) general diseases, *e.g.*, acute infections, chronic infections, carcinoma, etc.; (2) diseases of skin, fat, bones, joints, and muscles; (3) diseases of lymph and blood glands, and of blood; (4) diseases of nervous system; (5) diseases of circulatory organs; (6) diseases of respiratory organs; (7) diseases of alimentary organs; (8) diseases of urinary organs; (9) diseases of generative organs; (10) injuries (accident or violence).

TABLE XVI. *Deaths; duration of attack on admission correlated with the length of residence, and separately, the total duration of the mental illness in these who died during 19* (cf. Table XIV).

TABLE XVII. *Residues.* Showing the *forms of mental disorder* (symptomatological diagnosis), correlated if possible with the varieties of insanity, in the residues on December 31st, 19 .

TABLE XVIII. *Residues.* Showing the *total duration of the attack* in the three main classes (recent, sub-recent, persistent), *correlated with the ages* in main mental life-periods and decades, in the residues on December 31st, 19 .

TABLE XIX. *Residues.* Showing the *prognosis* as to mental recovery or improvement in the residues on December 31st, 19 , distinguishing three classes—recoverable, improvable, incurable.

TABLE XX. *Optional tables, e.g., Voluntary table, etc.*

Conclusion.—As a member of the statistical committee, it behoves me to offer a short explanation and apology to my colleagues of committee for the appearance of the preceding paper in the Journal. I sincerely trust that this communication will not be taken in the spirit of carping criticism. Nothing is farther from my mind. Any one who fairly compares the Committee's pro-

posed new tables, which are at present being discussed and criticised by the various Divisions of the Association, with those at present in use cannot but recognise that greater statistical accuracy and medical utility have been secured. But is it not possible to secure still greater accuracy and utility? I think it is; and seeing that the Association is going to the trouble and expense of a revision, is it not desirable in the interest of science and truth to make the tables as accurate and useful as possible?

The compilation of the Ayr Tables during the past two years has led me to review practically the whole field of the statistical data of the insanities, and has brought me face to face with the many difficulties which attend the construction of a series of strictly comparable medical tables suitable for English, Scottish, and Irish asylums, notwithstanding the varying lunacy administrations and practices in the three countries. I feel that it has been a valuable experience to have met these difficulties single-handed as it were, and to have had to deal with them from the point of view of the same individual (as distinguished from the necessarily varying points of view of different individuals), who has kept his eye steadfastly throughout upon the goal to be attained, the assurance of statistical accuracy combined with medical utility and without violation of legal integrity, in the statistics of insanity. For given a sound methodology in asylum statistics, reliability in the statistical data themselves, and in the ultimate formation of the statistical tables, an intelligent conception of the kind and value of the information to be sought, the more nearly will the statistics of insanity bring us to a knowledge of the truth. This is my apology, and I trust that it will be accepted in the spirit in which it is given.

(¹) Professor Osler's reply had not arrived at the time of going to press.

A classification of the literature of insanity with relative index, on Dewey's decimal system. By A. R. URQUHART, M.D., F.R.C.P.E.

While the Association is engaged in considering the proposals of the Statistical Committee, it may be helpful to note what has been written about insanity from the point of view of

a librarian. The following extended classification has been found adequate for the arrangement of some 1,500 books and pamphlets relating to this subject. An *authors* catalogue is easily prepared upon the usual dictionary plan, but it assumes a wide knowledge of literature, not only as a matter of history, but also as an incessant and overmastering growth. A *subjects* catalogue, on the other hand, is the method of importance to workers who, with the least possible delay, want to ascertain what has been written on all or any of the various aspects of the main subject engaging attention.

Many systems have been evolved by librarians, and their profession has become highly specialised. Mr. M. Dewey, director of the New York State Library, developed his decimal plan in 1873; and, with the assistance of many colleagues, is now engaged on the seventh edition of his great work. His fundamental plan has not varied, and it is the advantage of his system that it is capable of development as knowledge grows. It is, in fact, a classification of human knowledge, expanding just as required. The practical utility of the scheme has led to its adoption in hundreds of libraries, public and private, and it is a great gain in using Dewey's classification that one is at once on familiar terms with all the books and shelves thus arranged wherever they may be. Briefly—the first classification is as follows: (0) General works; (1) philosophy; (2) religion; (3) sociology; (4) philology; (5) natural science; (6) useful arts; (7) fine arts; (8) literature; (9) history. These are subdivided in a definite systematic manner, and the subject of mental derangements is dealt with under 132—as part of philosophy; 130 is mind and body, anthropology; 131 is mental physiology; 133 is witchcraft; and so on. Naturally under 132 Mr. Dewey proceeds to no minute subdivision, but merely notes 132·1 insanity, 132·2 idiocy, 132·3 hypochondria, and so on. The system permits of intimate treatment in subdividing, and in a special library this is necessary. Of course all mental derangements must come under 132, but the decimals may be extended indefinitely if the relative index be enlarged to correspond.

The following classification has been planned to permit of ready reference to the literature of mental derangements in detail, and of course it represents a mere fragment of Mr. Dewey's plan. Yet a librarian conversant with the system

would have no difficulty in at once referring to the subjects, because there is a certain facility in the decimal numbers, which are placed in a way readily understood and easily remembered.

The short titles of works classified will help to explain the system. The fancy names which luxuriate in our special literature have no place here, because they are all referable to a nomenclature generally used in practical affairs.

INSANITY.

(All classed under 132, repetition of which is omitted before each decimal number).

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Occasional Notes.

The Legal Status of Patients on "Leave of Absence on Trial."

"Leave of absence on trial" is such a valuable factor in the treatment of the insane that anything tending to hinder or hamper its use is to be deeply deplored.

A recent opinion of the law officers of the Crown, which affirms that a patient, on leave of absence on trial for a definite period, cannot be legally retaken before the expiration of that period, is calculated to limit very considerably the use of this valuable measure. This decision will be regretted alike by the Commissioners in Lunacy, who have so often advocated the use of leave of absence, and by the medical superintendents, who have found it so advantageous to their patients.

This opinion, unless it can be rendered nugatory, or the law altered, will grievously limit the use of leave of absence. No patient in whom there is any probability of relapse can now be sent out in this way, since the relapse, whether to

mania or melancholia, to suicide or dangerous propensities, cannot be controlled by the legal custodians who have been appointed to treat and protect him; and his disease, in the event of a relapse, may go on unchecked, until the end of his leave, unless some fresh legal procedure can be evoked to again give him the treatment he requires.

No legal decision has ever shown more fully than this the utter absence of the faintest conception in the legal mind that the detention of a sick person in an asylum is a matter of treatment, and not merely imprisonment. There is a total failure to recognise that absence on trial is a medical prescription, the use of which the prescribing physician should have the power of arresting whenever it is medically necessary. The leave is granted on medical advice, and should be revocable on the same grounds. The leave is given on the understanding that it is beneficial to the individual, and if the conditions of the leave are broken by the patient's mental state, the recapture should be possible, as in the case of a criminal lunatic or of a criminal on ticket of leave.

The legal opinion is apparently based on the view that a sick person, presumably mentally irresponsible, detained in an institution for purposes of treatment, by trial-leave is deprived of all treatment, and may be left to the ravages of his disease for days and weeks.

This opinion is certainly not in accord with the spirit and obvious intention of the leave of absence clause, and it may be doubted if it is even in accordance with the letter of it.

"Trial," as applied to the absence, might certainly be read to imply a condition of revocability: if it were "leave of absence" pure and simple, the discharge for a given time might be considered irrevocable from a strict adherence to the letter of the law and ignoring of all question of treatment.

The insertion of the words "upon trial" implies a condition. The trial is to prove whether the patient is fit to have his liberty, and if it is found that this is not the case the condition is not fulfilled. It must be borne in mind, moreover, that this "condition" is not an agreement in contract between two responsible parties, as the opinion appears to infer. In the case of a patient discharged on trial the patient is still certified as of unsound mind, and has no legal status, so that there is only one party to the arrangement, and that is the legal cus-

todial authority. The leave of absence on trial is not an agreement between the custodial authority and the patient, but is a mere authorisation (as provided in Clause 4 of Sec. 55) by a Commissioner in Lunacy, two members of the managing committee of a hospital, two visitors of a licensed house, etc., to the manager or superintendent of a hospital, licensed house, etc., to permit a patient to be absent from the institution, etc., for more than the forty-eight hours permitted in sub-Section 7, Sec. 55.

If this latter contention is true, the opinion is wrong, not only as an interpretation even of the letter of the law, but also of the provisions of the Act.

If, however, the opinion is correct, the leave of absence may probably be so framed that the power of recapture may still be retained by omitting the reference to time—by using the words of (*b*) sub-Section 5 of Sec. 55: “permit a private patient to be absent upon trial for such period as may be thought fit,” the period of leave being thus left entirely in the hands of the superintendent, manager, etc., who, however, in making the application might state the period beyond which he would not allow the patient to be absent.

The striking point about this question is the apparent difficulty that exists in England of so phrasing an Act of Parliament that it conveys what it was obviously intended to mean. There can be no doubt that the intention of the leave of absence was to give authority for a special mode of treatment and not to create a special class of liberated lunatics, licensed for a definite period, to endanger the community, or to exaggerate their disease. In this particular instance the interpretation would appear to be wrong, but in many instances it is the phrasing of the Act; both point to a defective use and understanding of the English language. This defect is a national reproach. Few so-called educated persons can spell correctly. The annual King's Speech at the opening of Parliament, and almost every clause of every Act of Parliament, contain grammatical errors, while nearly every sentence of every Act is interpreted in different ways by eminent legal luminaries. We cannot but hope that compulsory English may at no distant date take the place of compulsory Greek, and that our educated classes, in place of a smattering of Latin and Greek and a speaking acquaintance with the British ver-

nacular, may really possess some knowledge of the English language. When that day arrives it may be anticipated that such lamentable opinions as that quoted will cease to be given. In the meantime every effort should be made to correct the possible results of the opinion as it now stands.

Adolescent Insanity or Dementia Præcox.

Dementia præcox is so well-sounding and dwells with such ease in the memory that these facts may possibly have had some influence on its sudden popularity. So well-sounding is it that the friends of patients have even appeared to feel some mitigation of domestic calamity in the euphony of its appellation.

A novel term, however, should convey a distinct meaning and describe a definite objective; unless these conditions are fulfilled it cannot be accepted, and it is certainly open to question whether "dementia præcox" answers these requirements.

Dementia, although at one time erroneously applied to states of anergia or stupor, is now generally limited to the description of a permanent and irrecoverable loss of mental function. In the various forms of disorder written of as "dementia præcox" recovery is said to occur in a very considerable percentage. True dementia, therefore, must be altogether absent in these cases. From the description given of other varieties it is obvious that no dementia is present in the early stages, but only anergia or stupor, and that true dementia is only a terminal condition, as in other forms of insanity.

This term leaves the doubt, therefore, whether it is used to describe the stuporous (anergic) condition or the terminal condition of dementia. The first meaning is obsolete and the second is untrue in the recovered cases, while the confusion of accepting both meanings in one term to describe two widely different abnormal conditions is not tolerable.

The term "dementia," therefore, would appear to be confusing, misleading, and often altogether erroneous.

The "præcox" element of the term is even less defensible than the dementia. Has dementia any definite process of development, that it can be said to evolve precociously? The answer is inevitably negative. Precocity cannot correctly

apply to the manner of development of either anergia or dementia.

The accepted meaning, which the term does not really express, is that the dementia occurs early in the life of the individual; but this would be better described by the terms "early," "youthful," or, to more exactly particularise the stage of individual development, as "adolescent," since dementia may occur at or before puberty. If *præcox* were accepted in this sense, it should include these earlier dementias. The meaning of "*præcox*," therefore, must be admitted to be vague and indefinite.

The objective still remains, Is there any distinctive pathological degeneration occurring at the adolescent period which needs to be distinguished from other forms occurring at the same or other periods of life? The evidence of this is, at least, defective. Dr. McConaghey's paper published in this number of the Journal (p. 340) and the opinions expressed by Dr. Clouston and many other competent observers, throw great doubt on this.

Clinically there certainly does not appear to be any symptom complex that could be said to correspond to or indicate any special process of mental degeneration. Indeed, if the symptoms described by the various writers on the subject were massed, it would probably be found that they would cover every possible form of insanity occurring at this period of life. The insanity of adolescence differs from that of other periods by the more frequent occurrence of anergia or stupor, and by the earlier supervention of terminal dementia, the former due no doubt to greater proneness to vascular disturbance and the latter to the immaturity of the brain and the frequency of hereditary predisposition. These characteristics, however, are not special to the period.

Pathologically there is no convincing evidence of any special degenerative process in the brain.

The correct conclusion would appear to be that "adolescent" should be substituted for "*præcox*" and "insanity" for "dementia."

Dementia *præcox* might indeed be defined as a vague and misleading term descriptive of a non-existent variety of insanity.

The medico-psychological dictionary of the future should have as an appendix a glossary of extinct terms—a kind of

verbal cemetery, in which "dementia præcox," with very many others, might be decently interred, with fitting monumental allusion, to "rest in peace"—without hope of resurrection.

The Government of the London County Council Asylum.

The letter in our last issue of our correspondent "Medical Officer," who evidently considers that the London County Council should be beyond criticism, and that the management of its asylums is the acme of perfection, gives the amplest testimony to the actual existence of defect in administrative arrangements which we surmised from the statements made in connection with the Horton Asylum scandal.

The London County Council has received in the pages of this Journal such frequent eulogium for its liberality in dealing with the insane that any accusation of bias against that body is completely out of question, but the fact of having frequently applauded does not debar us from criticism.

Our correspondent himself criticises the London County Council by drawing attention to the fact that its Report on the Horton scandal was not yet before the public many months after the trial. The delay probably has been due to pressure of business, but it is to be regretted that a body, one of whose committees has recently adopted the retro-progressive plan of discussion with closed doors, should expose itself to the possible imputation of delaying its Report until public interest has become cold.

The Horton Asylum scandal as reported in the daily papers, our correspondent admits, gives an unfavourable impression in regard to the working of this particular asylum. He speaks of "hideous falsehoods" in this Report, which, however, mainly consists of sworn testimony. The judge appears to have accepted these statements, no one has been indicted for perjury, and the statements remain uncontroverted by the public body concerned.

Our correspondent speaks of the "much-abused central office." Now this body has not been alluded to previously by us, and the obvious conclusion is, therefore, that it has been much abused elsewhere.

A most important piece of information, however, is conveyed by this letter, all the more important and valuable from the fact

that it is given so unwittingly. The statement that "the central office soon recognises strength and efficiency on the part of any medical superintendent, and treats him accordingly," fully admits the power which this office exercises or may exercise against the medical superintendents. The addition "Small blame to it" (the central office) "if it takes advantage of any weakness, indecision, or incapacity," here gives a boldly sketched picture of the internecine conflict for administrative power.

The frank and full admission by a devoted supporter of the official system that the medical superintendent has only "himself to blame if he fails to hold his own before the tribunal of the committee," against the central officers still further emphasises the defect. It is quite easy to imagine that the odds against the medical superintendent are so great, that unless he makes "kow-tow" to the central office and purchases peace at the price of his independence of action, he is likely to fare very badly; unless, indeed, he is an exceptionally strong man, or possesses strong personal friends in the "tribunal," he is tolerably certain to get the worst of it. The central office, being in much more frequent contact with the governing body, and as our correspondent naively admits, being naturally desirous to "seek power and influence," will certainly have many opportunities of impressing the committee in its favour.

Under such circumstances the contending parties, if one of them dares to contend, must fight a duel at every fortnightly committee.

No such contention or opposition exists in the ordinary county asylums. There the medical superintendent comes into direct communication with his committee, who support and encourage him in the performance of his arduous duties, the discharge of which is not rendered more burdensome by the interposition of an altogether unnecessary resistance.

The London County Council which has given ample evidence of its desire to advance the good government of its asylums, will not fear but welcome criticism, and will endeavour to extract from it whatever truth there may be in it.

We shall not, therefore, pursue in detail our correspondent's lucubrations, some of which are altogether beside the mark and others make implied admissions that if pursued would give the Council greater reason than it already has for saying, "Save me from my friends"

The After-Care Association.

The annual meeting of this Association was held at the house of Dr. Sainsbury (the son-in-law of the late Dr. Hack Tuke), under the presidency of the Bishop of St. Albans. His lordship, who had prepared himself for his duties by a visit to the Claybury Asylum, spoke most forcibly in favour of the Association, and made an eloquent appeal for the extension of its work.

The Association has continued to increase in the number of persons aided and in the efficiency of its aid. Branch Associations are being formed in various parts of the country, and will, no doubt, add in course of time to the numbers of persons assisted.

In many asylums offertories and collection-boxes have been established during the year, and these will probably add something to the income of the Association, which is still quite inadequate to the possibilities of its usefulness. The Association, however, differs from most charitable undertakings in not being in debt; it is hoped that this may be held to be, not a defect, but a merit.

The evidence of the good work done in the prevention of relapse is yearly increasing, and should, apart from other considerations, constitute a strong recommendation to asylum superintendents to support, encourage, and improve this charitable effort.

Table IV.

Dr. Rayner's criticism of the table that I proposed to substitute for that of the Statistical Committee is very humiliating to me. That the table fell short of complete perfection I had some suspicion. I even attempted, in a subsequent communication, to repair some of its defects. That exception might be taken to its details, to its general arrangement, to the principles on which it was founded; that it might be discovered to be incomplete, erroneous, misleading, and generally vicious—for all this I was prepared. But I did hope I had made myself intelligible. Alas! even this shred of comfort is reft from me. I explained, at some length, that the objects I was endeavouring to classify were cases of insanity. Dr. Rayner accuses me of

attempting a classification of "Insane States." I would assure him, if I had any hope of making myself understood, that I should not have the heart to apply such a term even to the State of Utah. I tried with all my power of endeavour to make it clear that my primary division was made according to the time of origin of the disease, as congenital or non-congenital; that my secondary division was based upon the intensity of the symptoms, and my third division on the character of the symptoms; and these divisions were not only explained and expounded in the text, but embodied in the tables. Yet Dr. Rayner understands that my position is "that the only possible classification at the present time must be based upon symptoms, qualified by the principle of subdivision by intensity of the symptoms." I have therefore expressed myself so imperfectly that my first basis of division has made no impression on him at all, and he has gathered from my statement that I intended to put my third before my second. It is not to be wondered at that he should accuse me of departing from the path that I had myself pointed out. I can only wonder that he had the patience to read any farther.

I am happy in the supposition that Dr. Rayner admits the validity of my first two classes of non-congenital insanity—Fulminating and Acute. I think I am justified in assuming that if any conceivable objection to these classes had occurred to him it would have been stated. The class of sub-acute insanity is less fortunate. Several of the "symptomatic states" may co-exist, he asserts, in the same case. In constituting this class I said that objection might easily be made to it. It is satisfactory to find a prediction so early fulfilled. And I gave, as an instance, the very objection that Dr. Rayner makes. It is pleasing to find oneself supported by authority. But when he says that the symptoms enumerated in the table vary in their predominance from day to day, I must regretfully part company with him. Such has not been my experience. If it pleases Dr. Rayner, or anyone else, to supply omissions in the Table, or to add sub-classes to those I distinguished, I know not why they should hesitate to do so. The addition does not invalidate the principle of the classification any more than the omission does so.

Whether the committee intended their headings to be considered kinds or forms of insanity really does not matter in

the least. My criticism was directed against the elevation of mania and melancholia, which are manifestations of insanity, to the same level with general paralysis and folie circulaire, which include mania and melancholia among their manifestations. The criticism, if it is valid at all, remains valid whether we call them forms, or kinds, or sorts, or species, or genera, or families, or congregations, or flocks, or herds.

Dr. Rayner follows certain statements by the conclusion, "Insanity, therefore, is a clinical term for the symptom unsoundness of mind." I am unable to follow his reasoning, or to discover how his conclusion follows from his premises, and, as I have spent the last twenty years of my life in combating and denying this conclusion, I may be pardoned for hesitating to accept it with eagerness, though I should be the last to detract from Dr. Rayner's merit in rediscovering it, and establishing it on a logical basis—a task I still think impracticable.

I will not quarrel with Dr. Rayner's primary divisions, though I may feel a mild surprise at his statement that my own primary divisions agree with those of the Statistical Committee. Dr. Yellowlees will rejoice, I am sure, at the tardy repentance of so hardened a sinner as myself. But I must express my inability to understand how a defect can be acquired—at any rate on this side of St. George's Channel.

I fondly hoped that I had made clear the recognition of acute outbreaks occurring in chronic disease of usually mild intensity, and with this intention had provided a special column-headed "Exacerbate" in my table, but here again I express myself so imperfectly that Dr. Rayner has to explain the facts to me. Any criticism that I might make of Dr. Rayner's Table would be so biassed by prejudice as to be valueless. I could not agree to the separation of emotional states from intellectual states, because in my view intellectual states are an integral and essential part of emotion. I do not regard simple depression or exaltation as an emotional state at all. I regard obsession as a disorder, primarily of desire, and perhaps of will also, but not in the least of the intellect. Stupor seems to me as well entitled to be considered a general malady as folie circulaire, and to exhibit deficiency, not only of will, but of intelligence, emotion, and conduct. But here again I feel myself incompetent to criticise Dr. Rayner's scheme, for he discards altogether from his concept of insanity that disorder of

conduct which seems to me its most essential feature. So I could go on making to every item in the table objections to which neither Dr. Rayner nor anyone else would attach any importance.

CHAS. MERCIER.

“Certifiability.”

The terms, “certified lunatic,” “certifiable,” “certifiably insane,” &c., are commonly used as if some single definite meaning attached to them. I do not think this is the case.

More than one form of certificate is authorised by the Lunacy Acts. The Idiots Act, 1886, authorises one form. The Lunacy Act, 1890, authorises three forms—Form 8, Form 10, and a combination of Form 8 and Form 9. The effects of these certificates are severally very different.

(1) A certificate made under the Idiots Act, 1886, of itself, and without further authority, legalises the reception and detention of the certified idiot or imbecile in an institution registered under the Act. A person so certified is doubtless “certifiably” insane.

(2) A certificate made in Form 8 of the Lunacy Act, 1890, whether accompanied or not by a certificate in Form 9, does not of itself authorise the detention, or even the reception, in an institution, of the patient to whom it refers. The reception and detention need for their authorisation another document. Neglecting for the moment the case of the urgency certificate, the question arises: Does the making of a certificate, in Form 8 or in Form 10 of the Lunacy Act, 1890, constitute the subject of it a “certified patient”? Is he thereafter “certifiably” insane?

The certificate in Form 8 is in two parts. It states that the certifying practitioner is of opinion that the subject of the certificate is a lunatic or an idiot or a person of unsound mind, &c., and also gives facts indicating insanity. If the opinion is given and signed, does this of itself constitute a certificate, and, if so, is the subject of the certificate then a “certified” lunatic, and “certifiably” insane, whether or no the facts in the certificate bear out the opinion that the certificate expresses?

Certificates made in this form are made for the purpose of obtaining a judicial reception order. Two such certificates

must accompany the petition for the order, and it sometimes happens that one certificate can be obtained, but the second cannot. Is a person with respect to whom one practitioner makes a certificate, and another refuses to make a certificate, "certified" as a lunatic or "certifiably" insane?

Supposing that two certificates are obtained with respect to an alleged lunatic, and that, upon consideration of the petition and accompanying certificates, the judicial authority refuses to make an order, or dismisses the petition; is the patient still "certified" or "certifiably" insane? If not; has he been in the condition of being certified while the petition was pending? In such a case, the subject of two certificates would be at large and *sui juris*. The issue of his insanity would have been tried and determined in the negative. Are the certificates annulled by the dismissal of the petition? Or does he remain a "certified" lunatic? If the certificates are annulled, does the annulment date from the dismissal of the petition, leaving him a person who has been a "certified" lunatic; or does the dismissal of the petition annul the certificates retrospectively, leaving him a person who has never been "certified"?

(3) A certificate in Form 10 of the Lunacy Act, 1890, authorises the reception and detention for fourteen days of the subject of the certificate. During the fourteen days he is, no doubt, a "certified" lunatic, and is certifiably insane; but at the end of the fourteen days the detention is no longer legal unless an order is made by a magistrate. Again similar questions arise. If the magistrate refuses to make the order, the subject of the certificate ceases, it is presumed, to be a "certified" lunatic, and to be "certifiably" insane. Clearly, in this case, the action of the magistrate is not retrospective, and does not annul the certificate from the time it was made, for he cannot delegalise the detention during the fourteen days. If, then, the certificate is not in this case annulled *ab initio*, but is merely determined, by the refusal of the magistrate, is not the certificate in Forms 8 and 9 also merely determined by the dismissal of the petition, but in force, and the patient a certified lunatic, from the time the certificate is made until the petition is dismissed?

The cases are almost on all fours. The difference is that the certificate in Form 10 of itself gives a receiving and detaining power, while the certificate in Forms 8 and 9 requires in addition the order of a relative of the patient.

The action, or refusal to act, of the magistrate determines the efficacy of the certificate in both cases, and renders the subject of the certificate no longer a detainable lunatic; but, until the magistrate acts or refuses to act, or the time of their operation expires, both the certificate in Form 10 and the urgency certificate remain in force, are in action, and efficacious; and, during the time of their operation, the patient is surely "certified." But the case of certificates in Form 8, accompanying a petition for a reception order, is different. They have of themselves no operative force; they are merely for the consideration of the judicial authority, who may accept or reject them as he pleases. If he rejects or dismisses the petition, the patient is from that moment not a certified lunatic; but was he ever so?

It seems to be the current opinion that a person is "certifiable" with respect to whom a medical practitioner is prepared to make a certificate. From what I have said, this appears to be doubtful. Even when a certificate is made that a person is insane, it does not appear certain that that person is "certified," or even "certifiable." The opinion has been expressed in this association that "certifiability" should be the test of responsibility, and that no certifiably insane person should be held responsible for any crime that he may commit. The authority who expressed this opinion must have had in his mind that certifiability is a very definite state, which can be predicated or denied with certainty. It appears that this opinion is ill founded. What is often meant, I think, by "certifiability" is "detainability"—the liability to be detained under care and treatment as a person of unsound mind. But it is not certain that the two things are the same. And it must be borne in mind that the order for detention is not made by the certifier. It is made by the judicial authority upon the certificates; and it is much more difficult to induce the judicial authority to make an order, than to induce a medical practitioner to make a certificate.

CHAS. MERCIER.

Care of the Insane in England and Scotland. By PROFESSOR
E. MEYER, *Königsberg in Prussia.*

Professor Meyer gives an account of his visit to this country last year, and begins by paying us a high compliment as continuing the traditions of Conolly by a free and humane administration. He continues by giving an account of the

constitution and duties of the Commissioners in Lunacy, and specially describes the scope and contents of their annual reports. On the whole the statistical labours of the Commissioners are approved as being of a nature to command attention, and as giving the public full information as to the care and treatment of the insane. Dr. Meyer is of opinion that this method of central administration must deeply impress foreigners, he expresses the general regret that the Medical Commissioners of England are so restricted in number. Professor Meyer also regrets that there are so many insane persons who are not brought under the cognisance of the Commissioners, but are retained so often under unsuitable care. At the same time, he notes with approval that formalities and precautions against undue detention have not prevented Scottish patients from appropriate treatment in private care under that section of the Lunacy Act which provides for unconfirmed cases.

Professor Meyer warmly commends the ideal scheme of reception-houses or special wards in general hospitals open to clinical teaching, where early cases could be treated without formal certification. He notes that there is not one *Klinik* in Great Britain in the sense understood in Germany, where all the universities have established wards or houses for insane patients. At the same time Professor Meyer notes what has been done in this direction in Glasgow, and what has been proposed in London and Edinburgh, besides the departments under the care of Dr. Rayner at St. Thomas's Hospital and Dr. Percy Smith at Charing Cross Hospital.

At many asylums Professor Meyer saw additions of the villa type, suitably adding to the accommodation of the main buildings of the older institutions, and he gives some account of what has been done at Dumfries and Hellingly. He was especially attracted by the dining arrangements at Burntwood and the orderly manners of the patients there. As usual with our foreign friends, the domestic and industrial side of our asylum life are noted with approval. He urges, however, that the junior medical posts should be more adequately remunerated, and that assistant medical officers should not be condemned to celibacy. With reference to the quiet generally observable in British asylums, Dr. Meyer suggests that the inborn love of sport and exercise, which induces patients to take to work and

amusements, diminishes noise and violence. He comes to no conclusion on the points at issue as regards nursing administration, except a word of praise consequent upon his personal observations, and it is interesting to note that he bears testimony to the efficiency of the pathological work being done in our asylum laboratories. Professor Meyer describes his visits to boarded-out patients in Scotland, and his verdict is favourable, viz. that the insane are well cared for under this system. He concludes that the administration of this great State department affords many suggestions, and deserves the earnest attention of his colleagues in Germany.

Dr. W. W. Ireland.

We heartily join in the congratulations with which Dr. Ireland's many friends greeted him on the attainment of his professional jubilee. This JOURNAL for many years has had the advantage of his kind and careful aid. No contributor has worked more steadily to produce what is of sterling interest to our readers. The volume and the importance of his work have been widely recognised, and it is most fitting that in the evening of his laborious life his colleagues should place on record their appreciation of his worth and abilities. The expression of their esteem has taken the form of an illuminated address of the highest artistic merit, and the sum of money which accompanied that gift has been reported as satisfactory to the committee charged with the arrangements. We understand that it will probably be used in the production of certain of his literary works which still await publication, and venture to hope that a frontispiece portrait of Dr. Ireland will be found in one of the volumes as a souvenir of this interesting occasion.

A Serious Situation.

In our "Notes and News" column we have given at considerable length an account extracted from a local newspaper of recent proceedings of the Monaghan Asylum Committee. The doings of Irish Asylum Committees are often unintelligible and incoherent, but are sometimes tinged with a wild comicality which renders it impossible to take them quite seriously. Here,

however, we have to deal with an affair in which there is no element of fun.

One of the male officers of the asylum was stated by a nurse to have committed a criminal assault upon a female patient. The Inspectors of Lunatics held a sworn inquiry into the charge. Several members of the Committee were present, and the man charged and the woman making the charge were legally represented. The Report of the Inspectors and the minutes of evidence taken were submitted to the Committee. The Inspectors stated that there was absolutely no evidence on which reliance could be placed brought forward in support of the charge. They asked the Committee to consider whether the nurse who made the charge, who on her own admission is capable of such faithlessness in the discharge of her duties and untrustworthiness in her statements, is a proper person to be left in charge of the insane. They proceeded to say that they themselves were of opinion that she is entirely unfitted for the post she occupies.

A member of the Committee moved a resolution expressing satisfaction that the male officer had been pronounced clear of the infamous charge brought against him. This was not negatived, and does not appear to have been seconded or to have gone to a vote. A motion was then moved and seconded and defeated proposing to adopt the Inspectors' recommendation with regard to the nurse making the charge.

A motion was moved, seconded, and adopted, that the inspectors' Report be marked "read" (which is equivalent to saying that no action would be taken upon it). The newspaper from which we have taken our account concludes, "the matter then ended."

But has it ended, or ought it to end?

The Monaghan Asylum either contains a male officer capable of the worst offence that can be committed against a patient, or a female officer capable of the worst offence that can be committed against a fellow-official. In the first case the primary object of asylums is defeated; in the second, the perils of the asylum service are so increased that no sane man would adopt such a life. The Committee are indifferent or they are powerless to protect either their patients or their staff.

Can such an asylum be said to be efficient, or would it not be rather in the interest of all that it should be closed?

The Local Government Act for Ireland provides that the rate

in aid of local taxation of 4s. per caput weekly shall be paid in regard of each patient in a district asylum provisionally on the County Council being able to satisfy the Lord Lieutenant that their lunatic asylum is well managed and in good order and condition, and that the lunatics therein are properly maintained and cared for.

It would seem to us that the necessary conditions for the receipt of this grant are not fulfilled in the case of Monaghan, and that His Excellency the Lord Lieutenant, if the facts be laid before him, is personally responsible for seeing that this money is not expended contrary to the intention of the law. (1)

(1) As this article passes through the press our attention is called to the following item in the parliamentary intelligence of a Dublin contemporary (*Freeman's Journal*, March 24th, 1905):

"THE CASE OF A MONAGHAN ASYLUM NURSE.

"Mr. SLOAN asked the Attorney-General for Ireland whether he could now state the result of the Government inquiry into the case of Nurse Holland, who was reported by the Inspectors of Lunacy as entirely unfitted for her position, having regard to her faithlessness in the discharge of her duties and the untrustworthiness of her statements.

"The ATTORNEY-GENERAL for IRELAND: I have carefully considered this case. The appointment and dismissal of asylum nurses is vested solely in the Committee of Management of the Asylum. The only way in which the Government could intervene would be by withdrawing the Capitation Grant paid to the Monaghan Asylum under section 28, sub-section 2 (c) of the Local Government (Ireland) Act of 1898 on the ground that the Asylum is improperly managed. In the present instance the charge preferred by Nurse Holland was found to be false. The action of the committee in deciding to retain her services under the circumstances is much to be regretted, but I do not consider that their action can be held to bring the case within the provisions of the Act to which I have referred."

We regret the decision of the Irish Government, which does not alter our opinion in any way, and we can only hope that this very serious matter will not be allowed to rest where it is.

Part II.—Reviews.

Clinical Lectures on Mental Diseases. By T. S. CLOUSTON, M.D.,
Lecturer on Mental Diseases in the University of Edinburgh.
Sixth Edition, 1904. London: J. & A. Churchill. Crown 8vo, with
19 plates, pp. xiii, 738. 14s.

Readers of this Journal will need no commendation from us of a new edition of this great classic. It is familiar to every English-speaking student of our subject, and not alone through the dearth of good psychiatric literature in English, but from its own high intrinsic merit.

Dr. Clouston's vigorous endeavour to keep up to date—a very difficult task in these progressive times—has led to a considerable increase of bulk in this work. He, however, has striven to retain the general mould of the earlier editions, and we are not presented with the curious and not quite unfamiliar spectacle of a new edition, *ganz umgearbeitet*, contradicting everything contained in previous impressions. But the great Edinburgh teacher's method has its disadvantages too. The very convenient form of lectures is retained, and the lectures are twenty in number. Now, though there is nobody who has had the advantage of hearing Dr. Clouston but must have admired his lucid, vigorous, and incisive style and delivery, yet neither is there anyone who could believe that even Dr. Clouston, with his lightning power of commanding attention to the swiftest utterances, could have delivered this book in twenty lectures. Lecture I, for example, would surely occupy three or four hours in delivery, and, granting that thirst for knowledge which characterises the Scotch school and has made it what it is, yet we must allow something for the villainous inconstancy of man's nature. The slight air of unreality which this arrangement gives is to be regretted. There are also other indications of the difficulty of getting new wine, especially of Dr. Clouston's highly effervescent vintage, into old bottles. The fine plate I, which has formed the frontispiece of various editions for so long, contains a reference to page ix, but alas! page ix is occupied with the table of contents, and the reference should be to page 409. There are also not infrequently time references that give the reader something of a jolt, events and records being referred to as recent which are now of considerable standing. The correction of these would not have spoilt the flavour of the original, which we, at least, have no desire to alter.

There is a conservatism which is racy, but there is also a conservatism that is somewhat cloying. The word "paranoia" seems to vex Dr. Clouston. But paranoia is a very good word. It has the advantage—a small one, we concede—of being sound Greek, and this is probably more than can be said for "psychology" or "psychiatry." It is not more ill-defined (p. 9) than any other term used in our craft. It is not very recent (p. 10). It is very convenient, the more so for being "non-committal." It is certainly less incorrect than "monomania," which is the word really used by Dr. Clouston, who at the same time says: "There are few, if any, examples of a pure monomania." "Mono-psychosis" is probably hardly meant quite seriously. "State of fixed and limited delusion" is too long a phrase; besides, it is not very correct, for "limited" is only true in a specially limited sense; a well-grown systematic delusion often covers the whole intellectual field. If "paranoia" has been given there too wide and here too narrow a significance, which of our descriptive phrases has not had the same history? The word has usefully served a couple of generations of psychiatrists, and its convenience has brought it into use even in the daily Press. If we reject it because Kraepelin discards it (p. 277), we are in the difficulty that we must accept that writer's "paranoid form of dementia præcox," a veritable "refractory ward," the least objection to which is the mere linguistic one that it is absurd to call anything paranoid if there be nothing which is paranoia.

Dr. Clouston sets no great store on classification (wherein the present reviewer agrees with him) and therefore it would be unfair to judge him by his classification, which is merely one of convenience; but we would note that though there may be a philosophical reason for drawing attention to the affinities of acquired imbecility (dementia) to the congenital condition of imbecility, this arrangement is confusing in a students' text-book. Lecture VII deals with states of mental enfeeblement. The syllabus or abridgment preceding the text enumerates (a) Secondary (terminal) Dementia, (b) Congenital Imbecility, Idiocy, Amentia, Cretinism: Ireland's classification detailed (c) Senile Dementia, (d) Organic Dementia, (e) Alcoholic Dementia. It is true that in the text forms (a) and (b) alone are dealt with in this chapter. Although the scheme merely professes to be a symptomatic one, it is detrimental to the learner to have two conditions so entirely distinct as secondary dementia and idiocy associated together, and we have repeatedly found that candidates at examination, when questioned as to what is meant by dementia and under what forms it appears, have answered by detailing Ireland's classification of idiocy. Not to mention the mistake of the heading, which is probably an instance of new wine in old bottles, above referred to, it is probable that a certain confusion is nearly inevitable from the mode which Dr. Clouston adopts of dealing with mental affections. In spite of the inconvenience of repetition the best method of preparing a text-book seems to be the common German one according to which the work is divided into two parts, one general, dealing with the symptoms of insanity, the other special, dealing with the characteristics of particular types of mental affection.

States of defective inhibition are considered at length and with great acumen, but we should have wished from the vast stores of Dr. Clouston's clinical experience something more adequate than the twelve or thirteen lines given at pp. 334 and 374 to "imperative ideas" and "obsessions." We doubt the correctness of dismissing them as "just morbid impulses in the making."

We think our author ought to amend his list of famous men who were examples of the insane diathesis (De Quincey, Cowper, Turner, Shelley, Tasso, Lamb, and Goldsmith). How far De Quincey's state was due to diathesis, how far to opium, must remain doubtful. On the other hand, Cowper, Tasso and Lamb were all downright insane, and for periods under treatment. There is no tittle of evidence that Goldsmith was, diathetically or otherwise, troubled in his mind. He bore poverty and trials of every kind, including the envious yelping of foolish parasites, with heroic patience, and did not allow a shadow of his troubles to mar the sweet serenity of his tender mind or the limpid beauty of his graceful style. As for Turner and Shelley, the former was a dissipated fellow, but not so dissipated as Burns; the latter was a visionary, but he was a poet, and even so his verse was much more coherent than are the jeremiads of Carlyle. Besides, Dr. Clouston should sympathise with Shelley, who was an incorrigible optimist.

Dr. Clouston's experience as to general paralysis seems to show a very much less number of non-ambitious cases than occur in the practice of others. He speaks of three to four *per cent.* of melancholic cases.

He does not directly refer to the very striking and far from infrequent appearance of grotesque hypochondriacal delusions. He speaks of general paralysis of the young as one of the forms of developmental insanity, and does not seem to lay any special weight on syphilis in connection with this condition, although all other observers, we believe, are unanimous in attributing juvenile general paralysis to syphilis, as absolutely as any two conditions can be associated.

We have left ourselves too little room to speak fully of several features in this book which cannot be dealt with sketchily. Such are the newer pathological views expounded by Dr. Clouston. He seems to incline strongly to the opinion that bacterial infection is the essential cause of general paralysis adopted by Dr. Ford Robertson. The last named gentleman has supplied a number of beautiful plates of morbid anatomy.

Again, our author's views as to the insanities of puberty and adolescence are worthy of the fullest study. There can be no doubt that he was the earliest to point out the sinister significance of these affections in many cases, and the great development attained by doctrines which he first promulgated many years ago has added neither accuracy nor clarity to the subject as he set it forth.

With much that is contained in Dr. Clouston's book others will not agree, but all will appreciate the valuable mass of clinical material which he presents to his readers with all his accustomed picturesqueness and charm.

Ex Cathedrâ Essays on Insanity. By T. CLAYE SHAW, M.D., F.R.C.P., Lecturer on Psychological Medicine, St. Bartholomew's Hospital, etc. Pp. iv, 250. Sm. 8vo. London: Adlard & Son.

In this charming little book Dr. Claye Shaw, long superintendent of the Asylum at Banstead, addresses his former pupils in twelve chapters embodying chiefly his views on what might be called the philosophy of his subject. He eschews controversy, and takes large aspects of psychiatry as his field. His style is scholarly without pedantry, pleasant without facetiousness, and varied without straining after effect. In matter we fear he must be considered as fundamentally rather pessimistic; but this can hardly be wondered at in a man who has spent his life "cutting blocks with a razor," who is conscious of choice powers largely wasted in the preposterous effort of trying to drag a vast institution cleanly through the mire of local government. He does not whine nor bore his readers with any vain regrets. Here is what he says—"In no disease is the individual care and attention of acute cases more necessary than in insanity; for the indirect and direct causes are so numerous, the tissue itself is so complicated, even as yet to only a slight degree unravelled, the very nature of mind so difficult to grasp, that continuous and trained care is required to appreciate and to determine the question of combating symptoms as they arise. It is only in few cases that individual attention can be given. . . . In the very large asylums the personal attention of the senior physician and director may be said to be only nominal, as far as medical treatment goes, and the patient is left largely to the care and supervision of the

assistants, who may or may not be adequate." [This is a very kindly way of referring to the gentlemen whom a chairman of an Asylum Committee recently described publicly in the lay press as going into the service merely to give themselves time to grow a beard.] . . . "The time and labour involved in these minute investigations are great, in some cases impossible, and, as will be readily seen when many persons are under treatment cannot be undertaken, but of their importance to care and treatment there can be no contradiction. . . . In other countries the study of insanity is much more completely carried out than it is in this, and the medical work is far more subdivided. . . . It is difficult to see how the strictly curative treatment of the insane treated in large numbers is likely to improve, for it is scarcely possible to conceive any improvement in the physical conditions under which they are now placed, unless indeed a much greater expense is incurred than is already demanded. As it is the charge to the rates is about 11s. to 12s. per head per week, and no one who knows anything of the subject will be found to say that the present conditions are quite adequate. When it is remembered that ample provision ought to be made for the separate accommodation of patients suffering from tuberculosis, for the so-called asylum dysentery, for the acute cases of brain disease, for infectious diseases, and for general sickness, besides the special accommodation for the very large nursing staff, which is even to-day not what it should be in numerical strength, and when the multifarious lay duties of the professional staff are considered, the wonder is that such good results are obtained at such a small expenditure. Beyond the fact that employment in some occupation, plenty of outdoor exercise, efficient sanitation, and a sufficient, if not much varied, dietary are secured, there is no possibility of individual treatment beyond a very limited extent, and since the inducements for highly qualified men to remain in the specialty are not very great, it is not easy to see how much progress is to ensue unless the present conditions are radically changed and individualisation made more possible" (Chap. XII, "On the Treatment of Insanity"). In the last sentence lies the root of the matter. Our English asylums will not improve without a radical change and the thorough recognition of individualisation as against institutionalism.

In a chapter on "Surgery and Insanity" Dr. Claye Shaw develops his well-known views as to the importance of trephining, and in another on "The Surgical Treatment of Delusional Insanity" carries his argument further: "What is done with success," he says, "in Jacksonian epilepsy should be possible in ideational insanity" (Chapter X). In discussing fatigue he throws out this ingenious suggestion: "Hypnotists have found great difficulty in dealing with the insane, and the reason seems to be that the brain of a thoroughly insane person is not subject to fatigue like that of an ordinary person."

The essay on "Impulsive Insanity" strikes us as being hardly adequate. With that curious shyness of detailed clinical analysis which is the characteristic of the English school, the author does not demarcate this state by its obvious mental and even physical characters, though the classic descriptions given by the French authors must be quite familiar to him, but keeps on the legal outskirts, as it were, of the subject. This

is a mistake, and it always gives the lawyer, the "common-sense" gentleman, and the man in the street, an undue advantage. The cases are innumerable in which the insane commit acts of violence (premeditated or unpremeditated) through want of sense, or, if you like, of "inhibition," but these are not cases of impulse in the true meaning of the word. A distinction should also be made between insane "whim" and insane impulse.

In a sound if slightly discursive chapter on "Hysteria" our author strongly insists on what must have struck every intelligent and unbiassed observer, that the close resemblance between "hysterical" affections and diseases of a more serious import proves how baseless is the vulgar notion that the former are mere imitations, and shows that though we may for convenience call them "functional," a real structural change, of whatever nature or intensity, lies beneath them.

Other chapters deal with "The Nature of Insanity," "Consciousness," "Symptoms of Insanity," "Incoherence," "Evolution and Dissolution," and "Psychology and Nervous Diseases." There is much freshness in the statement of the author's opinions, and a delightful disdain for controversy. Thus "katatonia" is mentioned, to be dismissed in a line as "an accidental symptom."

The fruit of ripe experience and a cultivated mind, this book will find many readers among the class for whom it is intended.

Trattato di Psichiatria ad uso dei Medici e degli Studenti. Del Professor LEONARDO BIANCHI. Napoli: 1904. Part III, pp. 389-844. Price 10 l.

The publication of this part completes Professor Bianchi's treatise. Parts I and II, which have already been noticed in the JOURNAL OF MENTAL SCIENCE, dealt respectively with the fundamental laws of mental development considered in their relation to cerebral development, anatomy and physiology, and the elementary symptoms of mental disease, interpreted in the light of modern psychology. Part III, which constitutes the larger portion of the work, treats of the individual forms of mental disorder. A brief outline of its thirty-five chapters may be given.

The first describes the methods of investigating cases of insanity. In the next the vexed question of classification is discussed. Professor Bianchi recognises the impossibility of making a satisfactory classification in the present position of knowledge, and even doubts the utility of attempting any. He yields, however, to the natural desire for a classification of some sort by formulating one based, not upon any single criterion, but upon etiology, symptomatology and pathological anatomy. He distinguishes three great groups of mental disease, namely: (1) those that are essentially dependent upon defective cerebral and mental development; (2) those that arise in persons of normal mental development, in consequence of disorders of metabolism, which may be of infective, autotoxic, or toxic origin; and (3) those that have a distinct organic substratum in the form of recognisable morbid alterations in the cerebral tissues. It is not implied that these three divisions are distinct; certain predominating characters belong to each merely. In the suc-

ceeding chapters the individual forms of mental disease are described in the order in which they group themselves in these three divisions. The first group includes congenital weak-mindedness (*frenastenia*), insane eccentricity (*parafrenia*), insane criminality (*delinquenza*), epilepsy and epileptic psychoses, hysterical psychosis, developmental paranoia (*paranoia originaria*), fixed ideas and obsessions, neurasthenia and sexual perversions and inversions. The second group consists of simple mania, simple melancholia, mania-melancholia and periodic insanity (*frenosi maniaco-depressiva e periodica*), sensory insanity or primary hallucinatory psychosis (*frenosi sensoria*), mental confusion, acute paranoia, late paranoia, neurasthenic insanity, choreic insanity, syphilitic insanity, acute delirium, pellagrous insanity, alcoholic insanity, morphia insanity, cocaine insanity, chloral insanity, insanity from lead-poisoning, and, as an appendix, secondary dementia. The third group comprises paralytic dementia, syphilitic dementia, senile dementia, post apoplectic dementia, aphasic dementia, and traumatic dementia.

This final instalment of Professor Bianchi's book has many striking features, only one or two of which can be commented upon here. Perhaps the most remarkable is the distinction of the very comprehensive form, *frenosi sensoria*, or sensory insanity. In this Professor Bianchi includes most examples of the conditions commonly described as acute dementia, amentia, dementia præcox and mental confusion, as well as some other described types of insanity. Certain of them he recognises as varieties of sensory insanity. The special feature of this form of mental disease is that it is initiated by hallucinations. Whilst hallucinations are a secondary though important phenomenon in a great number of mental diseases, in sensory insanity they constitute the primary and essential symptom. The chapter on this subject is perhaps the finest in this section, and it can hardly fail to be read with great interest. Another specially striking chapter is that upon general paralysis. The author has gathered together an immense array of important facts bearing upon the pathology of this disease, many of which are not generally recorded in the text-books, and he discusses their significance in masterly fashion. He voices the growing feeling of scepticism as to the disease being really a parasymphilitic one, citing many observed facts that it is hard to reconcile with this still widely accepted hypothesis.

There is one other very striking feature of the book that calls for comment. It may safely be asserted that in no previous book of this kind has the importance of various forms of toxic action in the etiology of insanity been so strongly and so boldly maintained. In doing so, Professor Bianchi is in his own special department of science, keeping abreast of the facts and teaching of modern general pathology. The second group in his classification of mental diseases consists of those forms in the causation of which toxic agencies play a predominating part. It covers a large area and it includes sensory insanity, which is stated to be the most authentic representative of the group of psychoses resulting from endogenous intoxication and infection. Whilst the author thus attaches so much weight to toxic action, he is equally insistent in regard to the importance of hereditary influence as a factor in the pathogenesis of insanity. Throughout the work indeed he keeps

in view the action of the two forces, disturbances of metabolism and heredity, and in discussing the pathogenesis of each form of mental disorder he carefully estimates their respective influences.

Strong as this treatise is on the pathological side, it remains essentially what it purports to be, a book of clinical psychiatry. The author has given liberally of the fruits of his own long and mature experience in the investigation and treatment of insanity. The work of the keen observer, the original thinker and the powerful teacher is evident on every page. The book is one to be studied, and those who will undertake the task may be assured of a rich instruction. Professor Bianchi is to be congratulated upon the completion of his book, which adds new lustre to the name of the Neapolitan School of Psychiatry and Neuropathology, and reflects the highest credit upon Italian psychiatry in general. It is gratifying to learn that the English translation is already in the press, and that it will be issued within the next few weeks.

W. FORD ROBERTSON.

Das Leben Friedrich Nietzsches. By ELIZABETH FÖRSTER NIETZSCHE.
Zweiter Band. Leipzig: 1904.

In this volume Frau Förster completes the life of her brother, the first volume of which appeared about five years ago. The two volumes make up about nine hundred and fifty pages royal octavo, of which the second occupies two thirds. Nietzsche's singular character has been already dealt with in an article in the *Journal of Mental Science* for January, 1901.

For the present his career may be summed up: he was a professor of Greek at Basel for ten years, but was obliged to give up his charge owing to distressing headaches, partial loss of sight, and disorders of the stomach. Retiring on a small pension, he wandered about the Alps and Italy for ten years, during which he wrote a number of wild, aggressive, paradoxical books. Nordau has treated it as a proof of the degeneration of taste that these books obtained a considerable diffusion on the Continent. As years went on they became harsher in tone, as if he delighted to provoke people by attacking their dearest faiths. His last books are of a character with which one who deals with the insane is not unfamiliar. He attacks Christianity with extraordinary bitterness, giving a pronounced preference to Buddhism and Mohamedanism. A Christian morality is the denial of life; it tries to suppress the natural feelings of men. From this he was led to attack all received codes of morality. We look in vain for any substitute, or a new rule of life. There is much talk of higher men, of the over-man, whom common people were to worship because he was destined to put his foot upon their necks. These over-men were to gratify all their natural instincts without any ascetic restrictions. His advice to the higher men was "Become hard"; pity was a sign of weakness and decadence.

His sister gives a general *résumé* of Nietzsche's views and writings. Apparently she adopts them all, while she labours to show that his manner of life was very different from what might be guessed from the truculence of his opinions. He was naturally kindly and compassionate,

and his general life was pure and blameless. Such contradictions are occasionally met with. In his later writings it was apparent enough that he had passed the limits of sanity, but this Frau Förster will not admit. Her brother's insanity only commenced in December, 1888, at Turin, when it broke out in an unmistakable form with wild delusions, senseless letters, and absurd accusations against his best friends. After that he was under the care of his mother and then of his sister for twelve years, gradually becoming more and more demented. Several physicians took the trouble to point out that many of his doctrines were the offspring of a deranged mind. We had hoped to find details which would explain the origin and progress of his malady; but Frau Förster has her own views and gives us little new. She tells us that some doctors considered that he suffered from general paralysis of an atypical character, but she argues that atypical paralysis is not general paralysis. This is a point which would require some space for discussion. Towards the close he suffered from paralysis of the right side, with aphasia, and died after a succession of paralytic strokes. Her own view is that Nietzsche's derangement was owing to over-exertion of the eyesight and cranial nerves, with the abuse of powerful hypnotics, especially chloral, of which latterly he took very large doses against sleeplessness. There is in the book a dismal engraving exhibiting the patient reclining on a couch in an advanced stage of dementia. There was no examination of the brain after death.

Mrs. Förster is very wrath with Dr. Möbius, who asserted that Nietzsche suffered from luetic infection, apparently to support his diagnosis of general paralysis. This she denounces as an abominable calumny, adding that Möbius's statements have been corrected by Dr. Raoul Richter. Some physicians, she informs us, opined that Nietzsche's headaches were owing to his chastity and urged him to marry. But as his biographer remarks: "For a man of such refined feelings as my brother, who considered friendship the best thing in matrimony, this was a painful reason for contracting marriage. One doctor prescribed for him sexual relations of a less formal kind, which seemed to him a bitter medicine. He was not biassed on this question, but, although he believed prostitution to be a necessary evil, he regarded it as mean and degrading to both parties. On this account he wished to elevate prostitution and confine it by regulations. He pleaded for short unions, for years or months, the offspring to be treated as legitimate." Mrs. Förster is glad to know that now in Germany chastity has come into favour with very distinguished physicians, physiologists, and psychologists, and that in any case it is not denounced by medical men, and is left as a matter of option. From a review of a book by Max Marcuse in the *Centralblatt für Nervenheilkunde*, November 15th, we learn that the question, "whether a physician may advise intercourse without marriage?" is still being discussed in Germany. The author believes that the non-satisfaction of desire may have an injurious influence on the health. The reviewer considers the question as still a doubtful one, and would like to have good clinical observations about it.

We cannot say that Mrs. Förster's book is lively reading, yet it is impossible not to be struck with the warm affection and admiration which survived the long and melancholy illness. "Truly

touching," she writes, "was his gratitude towards me, here in Weimar. How many words of praise did he find to express his gratitude! how many consoling words when he saw me sad!" "Why do you weep, my sister? Are we not happy?" said he. Whatever his opinions were, he was always an affectionate brother. The sisterly fidelity reminds one of the strange book ⁽¹⁾ which Mrs. Norton wrote in defence of her brother Guiteau, the assassin of President Garfield; otherwise Guiteau and Nietzsche were different men, though both very wrong-headed.

From references in the book by Mrs. Förster, it appears that Nietzsche has still admirers who defend his views and sustain a controversy with the physicians; new editions of his works appear and his name still occurs in reviews and magazines on the Continent. Nietzsche's admiration for his own writings was unbounded. Speaking of *Zarathustra*, he says: "This book, with a voice reaching over thousands of years, is the highest of all books; the whole, actual man, lies immeasurably below him. It is the deepest work born from the inner riches of truth, an inexhaustible fountain into which no pail descends without coming up filled with gold and good things," and so on. Lower down he writes: "The figs fall from the trees; they are good and sweet. I am the north wind to the ripe figs." On one occasion, meeting with a pious noble English lady in Sils-Maria, and the conversation turning upon his philosophy, he implored her with tears not to read his books, to which the lady, who had heard something of his views, said that "she supposed his books would show her that so great an invalid had no right to live."

Although there is a general lowering of the standard of taste, we are pleased to think that Nietzsche's writings never obtained any circulation in Britain.

WILLIAM W. IRELAND.

(¹) *The Stalwarts*.

La Contagion Mentale. By Drs. A. VIGOUROUX and J. P. JUQUELIER.
Paris: Doin, 1905. Pp. 258, 8vo. Price 4 frs.

Two classes of influences make us what we are: congenital aptitudes and exterior circumstances. All psychic phenomena are moulded by the stress of internal forces and the strain of external forces. From the more or less biological standpoint of medicine we are apt, and rightly, to insist on the first class of forces, those of heredity. The external and environmental forces, which we recognise without always studying, also call for detailed discussion, and during recent years two writers especially—Tarde in France and Baldwin in America—have, from a somewhat abstract and philosophic standpoint, developed in more or less systematic shape a doctrine of imitation, which they regard as of immense importance in its bearings on all psychic life. The medical authors (one an alienist) of the latest volume in the "International Library of Experimental Psychology," starting from the general theory of imitation have marked out for themselves a certain portion of the field. By "mental contagion," using the word "mental" in its broadest sense, they

mean the imitation of reflex acts, of emotional states, of voluntary movements, of ideas, of beliefs, thus including all the manifestations of the activity of the cerebro-spinal axis. This imitation must always be involuntary; he who imparts the contagion is unconscious of the influence he exerts, and he who is affected by the contagion is unconscious of the influence he receives. Mental contagion is thus distinct from suggestion. The deliberate "I will" is always absent, even when voluntary actions are affected; the yawn of the person who sees another person yawning is the typical act of mental contagion.

Imitation is so very wide and often so very vague a subject that its discussion is apt to be unprofitable, and, notwithstanding the care with which they have sought to delimit their subject, it can scarcely be said that the present authors have altogether succeeded in wrestling successfully with the inherent difficulties of the theme which Dr. Toulouse has set before them. In the first part of the book they deal with the contagion of normal phenomena, of movements and acts, of emotional states, and of ideas. In the second part they describe the contagion of abnormal phenomena, of acquired habits (alcohol, tobacco, etc.), of morbid fears and anger (including insanity), of suicide, and of sexual perversions. A fairly large number of illustrative facts are brought together, and a number of lengthy quotations are introduced, nearly all from French authors. One of the few original observations brought forward concerns the alleged influence of contagion in the propagation of insanity; this the authors believe to be very rare, and then only operative in predisposed subjects. In a large asylum near Paris nearly 2000 *employés* have lived during the past thirty-five years; only four have become insane, and only two committed suicide, and in nearly all these cases adequate causes for the mental disturbance could be assigned.

The book concludes with a short chapter on what the authors consider the contagion of pathological manifestations of the æsthetic sentiment. This deals exclusively with some French poets, whose writings the authors do not seem to be familiar with, and whose names they cannot always spell correctly.

On the whole, it can scarcely be said that this is one of the most brilliant volumes in Dr. Toulouse's excellent series. This is in part, though not altogether, due to the difficulties of the task. By narrowing the field the late Dr. Aubry was able to produce a very careful and thorough study in his *Contagion du Meurtre*. HAVELOCK ELLIS.

Part III.—Epitome.

Progress of Psychiatry in 1904.

AMERICA.

By Dr. WILLIAM McDONALD, Jun.

After spending some months in visiting numerous psychiatric clinics in Europe, an American writer should have found inspiration and

material for a letter conveying some sort of a comparative estimate of the state of psychiatric affairs there and in his own land. If, moreover, he has been privileged to hear frank foreign opinions concerning American psychiatric work, he may welcome the opportunity of responding to such criticisms as he may deem in need of response. So it is with no unwilling pen that the present writer addresses the annual letter to *The British Journal of Mental Science*. But let it not be assumed that the writer, in a spirit of pique, is hinting at the prevalence in Europe of a belittled opinion as to American work; on the contrary there has been found everywhere a liberal willingness to "give the devil his due"; nor, on the other hand, is there any desire to magnify our few virtues by eulogistic advertisement. What follows is meant as a brief reference to, and interpretation of, conditions, good and bad, which seem not always to be viewed in perfect focus from across the water.

Among observations of a sort not entirely flattering, and uttered by men whose conclusions are worthy of attention, the following were perhaps most often heard. They are here repeated with different wording, though in every case with strict adherence to the significance intended to be conveyed by the original critic, and are in effect:

That America has not produced her fair share of really notable psychiatrists.

That we have *no psychiatry of our own*, and that the product carelessly referred to as *American psychiatry* is but the appropriated and conglomerated output of modern European clinics, mixed heterogeneously with the out-of-date relics bequeathed by former generations.

That we are so handicapped by evil political restrictions as to suffer a nullification or perversion of many of our good efforts and intentions, and that the control of a considerable proportion of our institutions is in the hands of unscrupulous politicians with itching palms.

That an American medical diploma is frequently acquired with undue ease and after insufficient study.

That as a result of the lax regulations relating to practitioners' licences our institutions are supplied with officers of inferior medical knowledge and insufficient psychiatric experience.

To deny the existence of any warrant in the above-mentioned assumptions would instantly and justly condemn the writer as one who permits his reason to be biassed by pride of nation, for such judgments are at least partially consistent with evidence necessarily admitted in a truthful portrayal of American psychiatric conditions. Indeed, so great is the appearance of contradiction in the import of these conditions that their historian and interpreter undertakes a task not to be performed by a few clever flourishes of the pen or the scribbling of conservative generalisations. To present indubitable and sufficient evidence of advance worthy of mention and comparison with the psychiatric exploits of other lands one must study intently all the straws in the wind—wisps, in this case resembling more an intricate heap of jack-straws than nicely balanced weather-vanes.

As diverse as are the studies and their results in the great clinics of Europe, there is, nevertheless, a far greater appearance of organisation and of unity in method and purpose than in America. At first glance

the activity and productivity, as seen, for example, in Germany, seem to far outrun and deeply overshadow our own. Unquestionably the enormous variation in the character and value of the methods pursued in the study of the American insane must be somewhat confusing to one who attempts the fixation of a common denominator for the work as a whole. The dissimilar nature of the activities, interests, and necessities of each individual state of a great land with variegated social constituents, unsettled economic conditions and immature political organisation, is somewhat unfavourable to unity in direction and equivalence of potency of labour of any kind, and undoubtedly the assertion that America has no characteristic psychiatry is fully warranted. One has only to glance at two of last year's Annual Reports from institutions in different States to convince himself that at least in the classification of patients there is sufficient lack of harmony. In one Report the cases are arranged according to the newest foreign classification, while in the other the inventory appears in a form so wonderfully conceived and so grotesquely minute in detail as to risk a provocation of merriment rather than of the pathos which so sad an exhibition of perplexity should arouse; a few hundred patients are divided into classes, the enumeration of which covers several pages on which the modern "*dementia præcox*" jostles the mediæval "*psychoses from disappointment in love and blighted affection*," and there seems to be no case in which there was any doubt as to the accuracy or propriety of the diagnosis. Is it any wonder that foreign colleagues, after reading such flights of phantasy, assume that some of our medical officers are very badly educated and very imperfectly trained?

That the American psychiatrist is open to the charge of depending too largely on his trans-Atlantic neighbours for ammunition may be due to national traits which largely influence affairs *non-psychiatric* as well as those of the alienist; for we have become somewhat hardened to the complaint so often heard that "the American works up at fever-heat the ideas evolved by his slower acting European brother." Perhaps no better example of the wholesale appropriation of trans-Atlantic ideas could be mentioned than the American adoption of the Kraepelinean classification before the innovation had produced hardly more than a ripple on the surface of that profound sea of German psychiatry which it is now so sorely troubling. Indeed, so great was the American enthusiasm as to amount almost to a furor, and so unreserved as to detract from what, if tendered with a more conservative attitude, would have constituted an unusual honour to Professor Kraepelin. The blind precipitancy with which this convenient nomenclature was seized hold of was the damning feature of its reception, and its author must have stood amazed at the sudden unlicensed and unbridled application of identical terms to clinical forms of the most heterogeneous type. American writers began to talk glibly of *dementia præcox*, and, instead of being used as a convenient and perhaps but temporary appellation for a number of seemingly related clinical phenomena, it appeared on every other page of psychiatric literature as though it were sponsor to a long-accepted, definitely defined and completely understood disease, a position to which Kraepelin himself allows it only a possible future eligibility. Likewise the term "*manic-depressive insanity*," though

perhaps better understood, with nearly the same recklessness, displaced a long list of time-honoured labels and had itself tacked on to clinical pictures never painted by the master hand. One author, thinking to advertise the grand practicability of the new nomenclature, gives a really beautiful description of a number of excited patients, and then with a *sang froid* almost pitiable, gives the differential diagnoses, calling those cases *catatonics* whose symptoms evidently corresponded exactly with Kraepelin's description of manic excitement and, inversely, with a firm hand placards the real catatonics with a capitalised *manic excitement*. It is such hasty desire to rush into print with articles based on insufficient study which has caused American psychiatric literature the pain of being stigmatised here and there as superficial and unsubstantial.

It is not surprising that we find peculiar assumptions abroad as to the general improper political management of our institutions for the insane; bad news will not stay at home, and accordingly the few unfortunate examples of maladministration which have caused us shame at home have deeply coloured foreign opinion. Charges of cruelty in the treatment of patients, of misconduct on the part of attendants, of misappropriation of funds, and complaints of various sorts reaching the ever attentive ear of yellow journalism have furnished material for the most startling of red-inked headlines so arranged as to present to the American public, as well as to over-sea observers, pictures absurdly magnified and fantastically distorted. The result has been in at least two instances an abrupt political interference which, while being paraded before a voting public as a praiseworthy act of altruism, has only succeeded in clogging the wheels of psychiatric progress. With sadness, however, we must admit that in at least one investigation of recent years the verdict returned was a just one, and the subsequent "shake-up" timely as well as beneficent.

But there are lighter and more cheerful tints as well as dark and displeasing aspects of the picture we are striving to paint.

If America has no psychiatry of her own, there is at least an enormous activity which goes by that name and which, with the characteristic national energy—even allowing largely for its frequent erratic course—may be expected to result in something worthy of the labour and deserving of the name. That we are unable to point with pride to a long list of notable psychiatrists is no shame, for until the middle of the last century the United States had been too busy carving for itself a permanent name upon the political roll of the world's great nations, and could scarce devote time and energy to the development of philosophy and science. While for centuries Europe has been turning her attention more and more to the great problems revolving about the nervously and mentally ill, it is only during the past two decades that the questions of alienism in America have received scientific regard to any considerable extent beyond the pressing demands of necessity. During this twenty years the number of laboratories devoted solely to the study of physiological psychology has grown till it now many times exceeds the number in Germany, and the accomplishments of psychology form possibly a prelude to a similar onward march of psychiatry.

We must admit the wholesale appropriation of trans-Atlantic ideas. It is true that our men go abroad to garner the good wheat of European

fields, and every year our workers strive to seize all that foreign *confrères* turn up in the course of scientific excavations; the latest laboratory exploits, changes in German clinical methods, new French studies in functional psychoses, or still other wise moves on the part of the Scotch Lunacy Commission, are all signals for the setting sail of special envoys, bound for foreign clinics and laboratories. Nowhere is the habit of incessant and omniverous reading so universal as in America, and thus all that is new and best is imported wholesale in the form of psychiatric books and journals. Commenting upon the sparsity of psychiatric periodicals on the files of a European clinic, a well-known psychiatrist said, "Reading is not so important—the patients are the best literature." Certainly the American student spends, as a rule, less time at the bedside than the German, and could well afford to copy some of the painstaking methods of observation and practical research of the latter; but unquestionably, allowing for equal attention to independent research, he who has studied the best work of others goes to the bedside with a mind richer and better prepared to make the most of his own labours than his less literary brother, and it is significant that there are to be seen of late, not only the indications of a further American development of European productions, but here and there the lively stirrings of a potent creative force. A glance at the publications of American psychiatrists in the past year will show that some of them are thinking for themselves and developing the products of their own intellectual activities as well as emulating the enviable feats of their neighbours. Unfortunately, the number of our psychiatric journals is so limited that much valuable matter must wait months for its turn in the press, or is perhaps eventually forced to make its appearance in one of the numerous journals devoted to general medicine; that not all of these articles are empty literary productions is evidenced by the solid character of the clinical and laboratory investigations upon which they are based. If a survey of the indices of psychiatric journals fails to convince, a perusal of the "half-yearly summary" of *The American Journal of Insanity* will afford the sceptic some conception of the living and healthy character of the work being carried on among our insane.

Other rainbows of promise are to be seen in the efforts made by our large medical schools to secure the most competent alienists as teachers, in the increase in time and attention given over to the study of mental diseases, and in the care taken to provide opportunities for practical clinical illustration and experience. As a further indication of the endeavour to develop good alienists for the future may be mentioned the plan of supplementing the practical experience of assistants in insane hospitals by courses of lectures and by conferences between members of different hospitals. In New York State, where this excellent practice originated, the results have been encouraging, especially in the development of more scientific methods of examining and studying patients as well as of recording and preserving histories. The work in the hospitals themselves is receiving added impetus from the increasing effort to relieve the superintendent of a part of the double load he has been forced to carry—that of physician to an enormous family and that of business manager of a complicated financial corporation; the appointment of so-called "clinical directors" is an attempt to take from the

superintendents' shoulders the direct responsibility of supervising the examination and further minute study of the cases.

There is evident a quite general willingness on the part of those in control to enrich the laboratory facilities and encourage among the medical officers a broad spirit of scientific investigation, while the more irksome of routine duties are being lightened by adding to the staff numbers. Higher salaries and improved living quarters are beginning to attract and retain for considerable periods of time men of ability, such as in former times rarely refrained long from a search for more remunerative occupation and a more congenial life.

After all, the final criterion of judgment as to the value of psychiatric work is to be the degree of amelioration which it can afford the mentally ill, and the potency of the measures which it is able to take toward the prevention of insanity and diminution of its prevalence. Judged by its efforts in this direction, there is no need of apology for the American work in general. Nowhere is the hospital spirit more universal than in American institutions. The respect in which person, property, and rights of the patient are held compares quite favourably with the attitude which is at times seen in foreign clinics, and which is occasionally somewhat shocking to the American observer. The eagerness to present a characteristic clinical picture would probably seldom so dominate an American teacher that he would permit a wildly excited young female to remove her clothing and run nude before the wondering eyes of a large congregation of medical students. It cannot be denied that there is occasionally found a medical officer who has a finical fear that the very slightest of his own words or acts may, in some mysterious manner, injure the patient's chances of recovery, and some such phobia has probably more than once resulted in an unjustifiable neglect of proper examination and study. On the other hand, it is questionable if such exhibitions as that just mentioned result in good to the patient, to the students, or to psychiatric progress, and it seems improbable that they tend to engender in the future physician the habit of regarding the erratic individual as a person seriously ill and demanding the most careful attention of skilled medical men. The custom of considering the insane as being the unfortunate subjects of grave illness requiring hospital treatment as well as restraint and protection is steadily advancing in America, and is evinced in a most satisfactory manner by the growing demand for observation and detention wards in all general hospitals, by the establishment of departments for mental diseases in the dispensaries and out-patient clinics, and particularly in the development of high-grade training schools for nurses, where are taught the principles of humane and scientific care and treatment of the insane; such schools are rapidly augmenting in numbers and in efficiency.

Probably it would be difficult to find more beautiful, more thorough-going, or more scientific hydro-therapeutic arrangements than may be seen in a number of our private institutions, and the public hospitals will probably be not far behind in the adoption of systems as practical and efficient, if not so elaborate or artistic in construction; in the matter of continuous tub-bathing we are, however, as yet far behind.

The employment, the entertainment, and healthy amusement of

patients is receiving more careful attention of late, and consistent results are being harvested, with promise of a greater future yield, while the principles of non-restraint, parole, and outdoor care have made such strides that the public mind is being rapidly educated into a more healthy and natural view of insanity. Faith in drugs, excepting those of a stimulating and tonic nature, or as are directly indicated by disordered bodily function is perhaps less universal than in Europe and one finds less general use made of hypnotics and sedatives—even of those numerous and much lauded modern preparations.

But this was to be a letter containing a plain statement of facts and must not be allowed to degenerate into such a listing of virtues as would lay the writer open to the charge of indulging in that "spread eagleism" already too often detected among our American traits. If the above shall have served the purpose of demonstrating an honest attempt on the part of American psychiatrists to develop a science and a profession of psychiatry within the borders of their own big land, and if it shall have justified a modest claim to a verdict of *progress*, the writer will remain content with his humble message to the *confères* across the sea.

DENMARK.

By Dr. A. FRIIS.

In Denmark little of note has happened to mark the progress of psychiatry during the year 1904.

The House of Parliament has decided that the Viborg Asylum, for chronic cases, shall be enlarged to accommodate 700 patients, a measure calculated to relieve the congestion at present felt with accommodation for only 350.

There is also under consideration a proposal to build another asylum for the helpless feeble-minded, who require only general care and supervision.

Literature on psychological subjects has been scanty, only one book having appeared. It is entitled *Slægter, lagttagelser fra en Sindssyge, Anstalt* ("Families: Observations from an Asylum for the Insane"), by Dr. F. Lange, Medical Superintendent of the Middlefart Asylum. It is an excellent work in which the author, in his usual lucid style, puts forward his experiences of degeneration.

FRANCE.

By Dr. RENÉ SEMELAIGNE.

Dementia præcox.—An interesting discussion on *Dementia præcox* took place at the annual meeting of French alienists held at Pau last August. Dr. Deny of Paris, in a Report on that subject, made the following statement: *Dementia præcox* is a psychosis essentially charac-

terised by an especial and progressive weakening of the intellectual faculties. It attacks young and previously normal people, and gives rise to various psychical disorders, as excitement, depression, confusion, hallucinations, delusions, etc., while it generally terminates in an abolition of every kind of psychical and physical activity. Generally the onset is indicated by certain diverse neuropathic disorders, these being in turn followed by delirious convulsions of varied type.

Dementia præcox exhibits both physical and psychical disorders, the latter being either constant, uniform, and essential, and constituting a weakening of the intellectual faculties, or variable and accidental, *viz.*, delirious manifestations, disorders of the senses, excitement, depression, and stupor.

This weakening of the intellectual faculties is one of the main features of dementia præcox, and differs from all other demential states, constituting a distinct type. It is a primary or universal dementia, being at first general and affecting the great psychical faculties of emotion, intellect, and will. In the early stages, there are only some slight indications of abnormality, such as uncertainty of temper, irritability, desire for solitude and loneliness, while later on apathy, moral anæsthesia, and emotional indifference, as indicated by carelessness in dress, uncleanliness, disappearance of family affections, and loss of sense of decency, make their appearance.

As symptoms of katatonia are negativism, *e.g.*, slowness and hesitation in movements from a psychical restraint, a passive opposition to all motor impulses, inertia, and stupor; abnormal suggestibility [excessive docility, imitative activity, cataleptic attitudes, automatic repetition of some act, rotatory automatism, echolalia, etc.]; repetitive activity, *i.e.*, the continuous repetition of some movement, phrase, etc.; and an excessive automatism characterised by a continual restless activity, by extravagant gesticulations, irresistible *fugues*, sudden impulses, fits of laughter or tears, etc. The disorders of intellect especially concern the attention, the sequence of ideas and the memory, the defect in which is characterised by inability to fix recent images, written or spoken, verbigeration, neologisms, etc. A mild but atypical form of dementia præcox is met with in cases where the dementia is unaccompanied by genuine delirious ideas, hallucinations, or symptoms of excitement; while some other clinical varieties of the disease, as katatonia, hebephrenia, paranoid dementia, arise from an association of this weakening of the intellectual faculties with other psychical disorders such as delirious manifestations, disorders of the senses, states of excitement, depression, and katatonic stupor. The delirious manifestations generally take the form of exalted ideas of wealth and power, ideas of persecution, hypochondriacal, mystic and erotic ideas, but they are always peculiarly complex and systematised, and often equal in multiplicity, silliness and extravagance the conceptions of a general paralytic. In some forms of paranoid dementia, however, one finds more coherent and fixed delusions, as, for example, ideas of persecution and ambition, and accompanying these, as a rule, are certain sense disorders, such as hallucinations of hearing, sight and general sensibility. In hebephrenia and paranoid dementia the predominant features are delirium and

disordered sensation, whereas in katatonic dementia, on the other hand, one meets with the most varied psychomotor phenomena. Some cases exhibit a state of intellectual and motor excitement, as evidenced by inexhaustible loquacity, incoherent rambling, neologisms, with the assumption of peculiar attitudes—that of the sphinx, of the athlete, of the Crucifixion; while some, in imitation of the ancient mode of dressing, go about with a blanket over their shoulders, or, pretending to be snakes, wriggle about beneath the bed-clothes, or suddenly begin to gesticulate, to climb, to dance, etc.; a katatonic patient, on the other hand, may remain for a whole day motionless, rigid, and, as it were, congealed in some painful attitude. The most reasonable explanation, perhaps, of these katatonic symptoms in dementia præcox is that they are due to a progressive weakening of all intellectual processes.

Physical manifestations are, on the other hand, much less characteristic in dementia præcox than in general paralysis, the commonest being as follows: increased knee-jerk in 92·3 *per cent.*, diminished plantar reflex in 71·4 *per cent.*; of eye changes there are abnormally sluggish reactions to light in 58·3 *per cent.*, diminution of accommodation reflex in 41·6 *per cent.*, inequality of the pupils in 60 *per cent.*, mydriasis in 76·9 *per cent.*, and myosis in 5 *per cent.*; while other changes are—lessening of pharyngeal reflex in 40 *per cent.*, diminished conjunctival reflex in 18·3 *per cent.*, disorders of menstruation in 60 *per cent.*, and vaso-motor disturbance in 60·4 *per cent.*

Pathologically, dementia præcox constitutes a clinical entity, without, however, an incontestable anatomical basis. The membranes are unaltered, and there are no naked-eye changes in the convolutions and sulci of the brain, though Klippel and Thermitte have observed two cases of asymmetric cerebellum occurring in this disease. The same observers have concluded, from histological examinations that there is no inflammatory reaction, or any evidence of diapedesis, in the coats of the vessels of the brain and spinal cord, the changes being entirely confined to the neurones of the association centres, and consisting of atrophy of the large pyramidal cells, with the exception of those in the motor zones; and a granulo-pigmentary degeneration of the same cells, with a diffuse chromatolysis. In the other forms of dementia, on the contrary—the paralytic, senile, toxico-infections, etc.—all the different elements of the brain—neurone, neuroglia, leucocytes, vascular endothelium and conjunctival cells—afford evidence of reaction to the pathogenic influence.

The time of life at which this disease most commonly makes its appearance is between 15 and 30, but in some cases the onset may be delayed till a later adult life, or even till the menopause. The two sexes are equally liable. The neuro-psychopathic heredity, as being a general ætiological factor governing all mental and nervous pathology, is seen in about 70 *per cent.* of the cases of dementia præcox, whereas physical stigmata of disease are but infrequently observed. All the causes of over-exertion and of physical and moral exhaustion, as puberty, menstrual disorders, and the puerperium, have an unquestionable influence—a fact which goes to support the theory of an auto-intoxication.

Dr. Deny concludes that dementia præcox, although subject, like

general paralysis, to the unavoidable law of heredity and acquired predisposition, nevertheless remains, just like general paralysis, a fortuitous and accidental disease.

Dr. Parant of Toulouse, speaking on this subject, said that as some people, and more especially the young, consecutively to various causes and even without hereditary predisposition, become insane and rapidly fall into dementia, such dementia may, in very rare cases, be a primary one. In the great majority of cases, however, the delirious disorders which mark the onset of the disease and often constitute its most salient feature, far from being merely accessories, are really causative of the dementia. The dementia, accordingly, is not primary but secondary.

Dr. Ballet of Paris expressed the opinion that dementia præcox is not an accidental psychosis, but one depending on constitutional predisposition. In seventeen cases of this disease he was able to trace either an hereditary predisposition, such as eccentricity in the father, strange behaviour of some relations, etc., or personal peculiarities in the patients themselves, as deformity of skull or ears, eccentricity of conduct, etc.; while in some of the cases both classes of predisposition co-existed.

Dr. Regis, of Bordeaux, described two great types of this disease: (1) the classical dementia præcox, with rapid and progressive degeneration of intellect; and (2) a psychosis, due to toxic causes, and marked by a form of mental confusion and katatonic symptoms. This form, he said, may either terminate in recovery or be followed by secondary dementia. According to Dr. Pactet, of Villejuif, dementia præcox occurs only in cases where the brain has already been injuriously affected either from hereditary predisposition or from some accident sustained during intra-uterine life. The exciting cause may be either some infection or auto-infection resulting from an acute disease or sensational excitement or over-exertion. Dr. Pactet holds that dementia præcox is exclusively a disease of puberty and early adult life, and is incurable.

On anatomical, physiological, and psychical disorders of degeneration studied in animals, and especially in the horse.—MM. Rudler and Chomel, who had previously described physical and psychical stigmata as seen in horses, presented at the Congress of Pau a clinical study of degenerations occurring in certain animals, and especially in the horse. An animal, just like a man, may present certain malformations, functional and intellectual, as follows:

(1) Physical or anatomical stigmata; anomalies of size and shape of the skull and of the face; asymmetry of the teeth; abnormalities occurring in the organs of sensation and in the trunk and limbs. (2) Physiological stigmata (*a*) in the nervous system, disorders of motility, of reflex action, of sensibility, and trophic disorders; (*b*) disorders of the generative functions; (*c*) digestive disorders, aerophagia, meteorism, digestive perversions. (3) Psychical stigmata, as indicated by mimetic disorders, impulsions, disorders of will and temper, phobias, hallucinations.

Such clinical signs, presented either in a man or in a horse, only acquire significance when several are found co-existing in the same individual, and the same rule applies also to their diagnostic and prognostic import.

Crime and general paralysis.—Dr. Pactet reported a case of a general paralytic in the Villejuif Asylum who killed an attendant on March 20th of the present year. He has observed several other cases of murder and assault perpetrated by individuals suffering from this disease, and he considers that there are many general paralytics who do not deserve the good reputation that such patients at present enjoy.

Judging from these cases, therefore, Dr. Briand and Dr. Christian think that general paralytics may be considered to be dangerous lunatics.

Dr. Marie reported the case of a female general paralytic who used to strike violently with a small sock full of sand the idiots and demented for snoring in her dormitory. He has also observed many attempts at suicide on the part of these patients, and accordingly he concludes that general paralytics are dangerous and ought to be carefully watched.

Dr. Gimbal also reported the case of a midwife, now presenting well-marked signs of general paralysis, who, eighteen months ago, perpetrated a crime at a time when no one suspected that she was not in the full enjoyment of all her faculties. Called to a woman in labour, she delivered the patient and afterwards perforated the uterus and dragged the intestines out of the abdomen.

GERMANY.

By DR. J. BRESLER.

In my last Annual Report I drew attention to the efforts that were being made to erect *sanatoria for nervous disorders* occurring in patients of the lower classes. These efforts are being continued. The Rhenish Society for Public Sanatoria having received a grant of 100 acres has already completed one of the several institutions it proposes to erect. The city of Essen also is about to build such a house, having received a large donation for this purpose from one of its citizens. A Society for building *nerve-sanatoria* has been formed in the Grand Duchy of Baden, which, with the already promised aid of the Government, will shortly begin work. I would here emphasise the importance of early treatment as a prophylactic measure in nervous cases, and point out that it is the duty of alienist physicians to enlist the interest of the charitable, that those afflicted may be able to take advantage of institutional treatment.

At the Annual Meeting of the German Society of Psychiatry, held at Göttingen, April, 1904, the *relation of psychiatry to neurology* was fully discussed by Prof. Fürstner of Strassburg. He mentioned that as long as forty years ago the great psychiatrist Griesinger urged the amalgamation of these two branches of medical science, whilst to-day there were many who were opposed to this union. Many nervous diseases, such as the traumatic neuroses, hypochondriasis, hysteria, epilepsy, etc., come within the province of the psychiatrist. The separation of psychiatry and neurology is an artificial one. In many nerve cases the anomalies of temper, intellect, and volition are the leading charac-

teristics. An exclusively psychiatric clinic gives to the student a wrong impression of the psychological troubles he will meet with in practice. A study of boundary cases is of great importance in experimental psychology.

Hoche spoke on the *Classification and Nomenclature of the Psychoses* with regard to medical examinations. The disagreement of alienists with regard to nomenclature causes difficulties for the examiner and the student. But these difficulties are only apparent; an examiner should understand the language of other teachers and be able to determine, irrespective of the nomenclature adopted, whether or not the candidate possesses sufficient knowledge to satisfy the requirements of the regulations: nevertheless having regard to this aspect of the case it would be well if writers on psychiatry would hesitate before introducing a new terminology. In that most important matter for the practitioner, the psychopathic symptomatology, an agreement of examiners is practicable. (In Germany psychiatry will shortly be included in the curriculum for the student.)

Another Society of Alienists and Jurists was founded at Giessen in 1904 by Prof. Sommer (Alienist) and Prof. Mittermaier (Jurist). At the first meeting of the Society Prof. Mittermaier spoke on the reform of the penal laws, while Prof. Sommer dealt with the value to be attached to the depositions of witnesses. I would strongly recommend the formation of similar societies to my colleagues in other lands.

As an indication that the progress of the studies of experimental psychology is intimately connected with the progress of scientific psychiatry, I may mention that the first Congress of Experimental Psychology was held, in April, 1904, at Giessen, under the presidency of Prof. Müller and Prof. Sommer, of Giessen. In the psychiatric clinic at Giessen a demonstration of psychophysics instruments was given to the members of the Congress. We hope that experimental psychology will afford exact methods for the clinical investigation of normal and abnormal mental activity. The next meeting will be held at Wurtzburg in 1905.

Finally, I have to report the opening of the new Psychiatric Clinic at Munich, by Prof. Kraepelin, in November last. It contains 100 beds, and will receive from 1500 to 2000 patients yearly. The services of fourteen physicians will be employed, and the ratio of attendants to patients will be one to three. The treatment by prolonged hot baths will be freely tried, the number of baths to patients being one to four. The Clinic is fully provided with all the scientific instruments necessary for psychophysical, chemical, anatomical, and electrical studies.

The treatment of states of excitement by prolonged baths, which was introduced in France more than fifty years ago, but soon discontinued, has now for more than ten years been revived in Germany, and we find, both in the newly erected asylums and in those of older date, ample accommodation for carrying out this treatment, which has been adopted as far as possible in lieu of sedative drugs and seclusion.

HOLLAND.

By Dr. F. M. COWAN.

Asylums are not popular institutions. In this respect circumstances in Holland are what they undoubtedly are in almost every other country. The public firmly believes that strange and weird things go on within the asylum walls, and is ever inclined to believe accusations by some discharged inmate. A medical student wrote a paper in which he uttered the very worst complaints about his illegal confinement in one of our asylums, and in a very short time a cry was raised that such things were shameful, and should be stopped. Newspapers eagerly spread the news, and, of course, the medical superintendent came in for the greater part of the scolding. The position of the asylum physician is a very difficult one in such circumstances; very often his medical oath forbids him to speak, and then there is the dislike to enter into discussion with opponents who are decided not to be convinced.

The question arose in the Psychological Association what measures could be taken to prevent the occurrence of such disagreeable events. Dr. van Deventer wrote a paper, in which he proposed that a Board should be formed which should examine such questions and report upon them. The scheme, superficially, seems a good one, only who are to form the Board? If it is to be a body of alienists, it may be feared that outsiders will consider the opinion a partial one, and no good will be done. No doubt it is hard to endure the unjust accusations of people unfit to judge, but then what cannot be cured must be endured.

Want of accommodation is still the chronic evil. No sooner is a new wing added to an already existing asylum or is a new asylum built than it gets filled in a very short time, and applications have to be refused. Plans have been made for new asylums, one for Amsterdam and one for Rotterdam. As a matter of course the founding of a colony is thought of and discussed. There is no doubt that a colony would have the advantage of disburdening the asylums of a large number of incurables, and if properly managed even curable patients might advantageously be treated in a boarding-house; still, even ardent advocates will acknowledge that the system has serious disadvantages. As it is, we have one colony on a very small scale, and only for women. It exists in the small town of Grave. The asylum at Grave is a small one, and only quiet patients are taken; there is no such thing as a refractory ward. It is very interesting to hear how the medical superintendent made the citizens accustomed to the presence of lunatics, and how he encouraged them to take such patients as boarders. Dr. Vos tells us that he made a number of his patients take walks in the town, accompanied by only one or two nurses; then several of them were allowed to go out alone. Dr. Vos had taken the precaution to provide one of them with a ticket, in which it was mentioned that they had obtained furlough, so as to prevent any ill-timed interference. Tradesmen and other people having business at the asylum had to reach the building through the airing-court; the consequence was that the inhabitants of Grave were rather disappointed to perceive that, to quote the handbook of Bucknill and Tuke, "the

asylum inmates were as grave as a Vestry Meeting." When a year had elapsed an advertisement was inserted in the local paper inviting people to take patients as boarders and to apply at the asylum. The system works very well; but there is the Lunacy Law, which proves an obstacle.

The law regulates the stay of lunatics in an asylum, but does not mention the case of paupers staying in a boarding-house: the different municipalities consequently refuse to pay the boarding expenses unless their patients are received in a regular asylum. Our Home Office consequently wishes to introduce a supplementary article. Some of the clauses proposed decided the Psychological Association to send an address to the Chamber with the view to obtain a few changes in the matter proposed. Government proposes that the Board of Governors shall decide who is to be boarded out and who is not; the Association considers that this is an encroachment on the duties of the physician; indeed, it seems strange that such an absurd measure should be taken. Experience shows that whenever a man has been an asylum governor for a few months he considers himself a competent alienist; and it is to be feared that these worthies, jealous of their authority, will select the patients themselves and turn a deaf ear to the opinion of the physician. Another argument, adduced by the minister, was that, at the moment, our asylums contained a large number of old people who should not be asylum inmates, because they were only kept there on account of feeble-mindedness, a consequence of their age, but who might advantageously be cared for in a private house. To this the Association answered that it was a mistake to think that our asylums were considered as almshouses by the physicians; that the experiment had been tried in several cases of sending home such patients as seemed to be fit for this; and that the experiment had proved a failure in many cases; that several of these harmless people, when at home again, turned out to be unruly and to have foul habits; that the selection of lunatics for boarders was very often a very difficult matter requiring a thorough acquaintance with the case. As I mentioned, the system which is now carried out at Grave is counteracted by the existing law; not only do municipalities refuse to defray the expenses of boarded patients, but such boarders are to leave the asylum on furlough, and when the legal term for their stay is past it is either necessary to make them return to the asylum for some time or they have to be discharged as "not recovered." In the latter case the asylum doctor loses all control, and his regular visits may be refused; besides, in the case of a relapse all the formalities required by the law have to be gone through anew. As Dr. Vos writes, no difficulties have as yet arisen. One of the practitioners at Grave has been found willing to give a certificate, empowering the justice of the peace to give his authorisation to receive the patient into the asylum; but precious time may be lost in this way, and it is desirable that the term may be lengthened without those superfluous formalities.

Another *question brillante* is the nursing staff, especially the male part. There is no doubt that women have a certain tact not often met with in men of attending to and caring for sick and diseased; still, in some of the asylum wards it is impossible to do without male attendants. It cannot be denied that the authorities have done a great deal for

nurses and next to nothing for the men. That the pay of the male attendants is higher than that of the nurses is the necessary consequence of the law of demand and supply. Fortunately, the minister has passed a resolution for the reorganization of the personnel in the Government asylum at Medomblik. It is ordered that there shall be four degrees *viz.* applicants, assistants, nurses, and head nurses. Persons applying shall not be under 18 nor above 35 years, they shall first be medically examined by one of the physicians, they shall fill up a form of questions, and inquiries shall be made as to conduct, etc., of the applicant. When appointed they shall pass an examination within a year and a half, but not until four months after admission. It comprises reading, writing, grammar, arithmetic, the elements of the nursing of the insane; women have to prove their acquaintance with needlework. The examination is held twice a year (in March and in September). The examination for attendant or nurse is divided into two parts. It is required that the first part shall be passed within a year and a half after their appointment; the minimum of time is to be eleven months of service in the lower rank. This first part comprises history, geography, an elementary knowledge of human anatomy, and physiology. Within two years the second part must be passed—nursing, an acquaintance with the symptoms of insanity, care for the insane; women shall show some proficiency in the cooking for the sick.

After passing this examination successfully they are appointed nurse; they obtain a diploma and receive a badge.

A schoolmaster is attached to the Medomblik asylum. His duties are to teach the idiots (a few hours a week) and to give lessons to the applicants and assistants.

The salaries are as follows :

	Men.	Women.
Applicants	F.180 (£15)	F.120 (£10)
Assistants having passed the first part of exam.	F.240 (£20)	F.180 (£15)
Assistants before passing	F.200 (£16 15s.)	F.150 (£12 10s.)
Attendants (single)	F.230 (£23 6s.)	
„ (married)	F.550 (£25 10s.)	
Head-attendants (single)	F.400 (£33 10s.)	
„ (married)	F.650 (£54 4s.)	

Attendants may rise to a pay of F.355 (£30) per annum, and if married to F.750 (£62 10s.); head-attendants may rise to F.500 (£41), if single, and to F.850 (£70 16s.) if married. An attendant may be pensioned on account of infirmity after ten years' duty, and such a pension may reach an amount of F.700 (£58 6s.).

It is hoped that an improvement in the social status of attendants will greatly improve the standard.

ITALY.

By Dr. G. C. FERRARI.

The year 1904 will always be a memorable one in the history of Italian psychiatry. February 14th saw the promulgation of the new

Law for Lunatics and Asylums, which for the last ten years has been lingering in the different legislative assemblies. Although the law is imperfect and needs many modifications, yet it is a public guarantee against arbitrary sequestration; it also provides for the safe keeping of the property of patients and gives to the medical director authority over the administrative powers necessary for the welfare of the patients.

The rules, which will complete the law and which have been confided to alienists of such distinction as Professors Tamburini and Bianchi, will state precisely the duties of everybody and enjoin that there shall be a medical officer for every hundred patients (the medical director not being included), a nurse for every ten patients, and a section reserved for the observation of new cases until the diagnosis has been made, and the necessary legal authority for detention has not been definitely given. The rules regulate all the means of mechanical restraint, and very heavy fines are inflicted, not only on the attendants who use such means without medical authority, but also on the medical officer who orders such treatment when not absolutely necessary. They recommend "boarding out" and "family care" in its various forms (to recommend a uniform system would be impossible owing to the diversity of systems in vogue in various regions); they compel the asylums to give theoretical and practical instruction to attendants and to those who aspire to such posts and also the building of medico-pedagogic institutions for backward children. Further, the rules provide for the well-being of the medical staff (regulations regarding meetings, promotions, and pensions) so as to promote the study of psychiatry. The new asylums will be united in various regions and special institutions built for this purpose.

We owe the new law above all to Signor Giolitti, President of the Council of Ministers, and to the constant representations of the Società Freniatria Italiana, the president of which is Professor Tamburini.

The Società Freniatria had its Congress at Gènes, on October 18th to 23rd, the new lunacy law being the principal subject for discussion. The Congress was presided over by Professor Morselli, director of the Clinique for Nervous and Mental Disease at the University of Gènes. In his opening address, Professor Morselli spoke of the close bonds which united psychiatry with neuropathology, bonds so strong that in our universities the two chairs are combined. That the psychic factor predominates more and more in the etiology, pathology, and in the therapy of mental disease he clearly demonstrated with many clever arguments and took occasion to deplore the greater study given to neuropathology as compared with that given to psychopathology.

Of the papers read we can scarcely give more than their titles. Fragnito (Napoli) and Donaggio (Reggio Emilia) reported on the anatomy and physiology of the channels of conduction from the nerve-cell. According to them there do not exist in the central nervous system any fibres completely developed which do not end in a ganglionic cell. The neuropils of the invertebrates do not exist in the vertebrates and it is only by special staining methods Donaggio (*Riv. sper. di Freniatria*, vol. xxx, Nos. 2, 3) has demonstrated the existence of a fibrillar endo-cellular network which preserves continuity with the axis-cylinders. The cell, besides being a simple

channel of conduction of nerve-currents, has a high functional value. The diversity of the mutual connections between the different fibrillæ are in correspondence with the variations in the psychological mechanism.

The second paper by Obici (Venice) and Angiolella (Nocera) on "The Psychoses at the Different Ages of Life," raised the burning question of dementia pæcox. The discussion was very lively, the views of Kraepelin being by far the more generally accepted.

The third report by Professor Negro (Torino) dealt with "The Actual Conception of the Systematic Diseases of the Spinal Cord." He states that the pathological anatomy and the symptoms of these are explained by the neuron theory.

In the fourth report Professor Belmondo (Padua) treated of the different technical questions relating to asylums. The new lunacy law which I have already mentioned orders the institution at each of the asylums, but quite apart from them, of a section for the special observation of new cases, where such have to remain so long as there is any uncertainty in the diagnosis of insanity, the maximum period being a month. Professor Belmondo thinks this to be in complete disaccord with the constant efforts of alienists to demonstrate that the insane are suffering from disease just as much as those who need hospital care in the ordinary sense of the word. The Congress, however, were not in general agreement on this point.

The last report by Prof. Tamburini (Reggio Emilia) and Antonin (Udine), on "The Legal Position of Alienists on Questions of Civic Capacity," is of purely local interest.

All these Reports gave rise to interesting and instructive discussions, so much so that there was but little time for other communications. I wish, however, to say a word about Prof. Colucci's (Napoli) work "On the Effects of Inoculation by Different Substances in the Ventricles of the Brain." Dogs and rabbits proved very suitable for the experiments, some of the dogs surviving for three years. The phenomena which resulted varied according to the substance injected, the weight of the animal, etc., and there were observed spasms, paralyses, convulsions, asthenias, sensory and psychic disturbances, etc. But two phenomena above all were interesting—the rapid change from most grave states to those of perfect health, and the striking of cataleptic and stereotyped attitudes. The histological study of the pieces of brain was productive of much knowledge regarding the cerebral lymphatics, the layers of the choroid, etc.

As for myself, I brought before the Congress the organisation of institutions for backward children, idiots, and imbeciles, about which I could speak with some confidence, having for one year directed the one at Bertalia, near Bologna, in which were 320 children, ranging from 5 to 16 years of age. I urged the necessity of the present institutions, which are either private ventures or charities, coming under State control, where all the "backward" should be sent, where they would be classified, educated, and taught, when possible, some useful employment. The Congress passed a resolution in accordance with this.

M. Felici (Ancona) brought before the Congress the burning question of the relationships which should exist between the State and

the asylums, advocating a system similar to that adopted in France. There was an energetic debate, and though there was general agreement that the asylums should come under State control, it was thought wiser to wait and see the effects of the new lunacy law.

The numerous contributions made at the Congress bear eloquent testimony to the healthy state of psychiatry in Italy. I regret that lack of space prevents me from dealing fully with them. I would like to mention, however, the "Calipher-Index" shown to the Congress by Dr. Belloni (Quarto al Mare). It combines ordinary calipers for crano-anthropometric researches with a scale showing the relative indices.

In a previous number of the Journal I have already mentioned Prof. Belmondo's *Manual of Mental Diseases*. Unfortunately, this work forms part of a *Clinical Encyclopædia* and some trivial editorial questions prevent the diffusion which it merits by its clearness, order, and descriptiveness.

Prof. Bianchi has finished his great treatise, commenced two years ago. The studies of the celebrated clinician of Naples on the cerebral functions, especially of the anterior lobes of the brain, and their subsequent influence on neuro-pathology, psychiatry, and neurology, occupy a great part of the work. The classification of mental diseases, which is peculiarly his own, merits a long exposition and some discussion, but the clinical pictures are striking in distinctness and precision, the most modern views on psycho-pathology being always remembered.

The last great publication is Prof. Tanzi's (Florence) *Treatise on Mental Diseases*, a work well arranged and rich in original thought, almost at times reaching the paradox. M. Tanzi is never afraid to advance an hypothesis when there are facts which justify it, and he never forgets to point out the bonds which bind science to other branches of biology; but when he comes to deal with the forms of mental disorder he does not deviate from the lines of rational empiricism. It is this fact upon which rests principally all the practical value of his great work, which can be recommended to students as well as to all who are interested in psychiatry.

I am about to prepare an English translation of Tanzi's treatise. Such an undertaking is alike an honour to the author and to the nation which adopts his work. Only a sterile race fears a foreign invasion. Similar ventures in Italy have been singularly successful, James' *Principles of Psychology*, which I translated into Italian in 1901 (an edition of 2000 copies), having absolutely run out, necessitating the preparation of a second edition.

The study of psychology flourishes in all its branches. Pedagogic psychology, above all, is cultivated in Italy, and numerous schoolmasters and mistresses now attend the scientific course of M. Pizzoli, which this year is to be transferred to Milan. I am about to publish this year a journal, which will be called *Rivista di Psicologia applicata alla Pedagogia ed alla Psicopatologia*, which will appear bi-monthly, in which it is proposed to gather together work now scattered in numerous publications.

The International Congress on Psychology will be held this year at Rome towards the end of April, and the International Congress on

Family Care will be held at Milan in 1906. Great interest is being taken in these events by alienists, the proceedings of which will form material for future Reports.

I will conclude with some items of news which are more or less related to the subject of this paper, and which will be of interest to the readers of the *Journal of Mental Science*. For a year now there has been in force the "law of pardon," which permits a judge to suspend for the first time the carrying out of the sentence of the Court so long as the accused does not offend again.

We are ready also for a change in the law regarding the treatment of "habitual criminals" similar to that recently adopted in England, considering that society has a right to protect itself against these miserable creatures and to take advantage of their possible aptitude for work.

Lastly, there has been founded at Ferrara by Prof. Capellitti a new "Ecole de Police Scientifique" analogous to that established in Rome, which I mentioned in my last year's Report, and which is directed by Prof. Ottolenghi.

Thus Italy continues in the path of progress and enlightenment, and I am thankful for the opportunity of once more recording it

NORWAY (1902 to 1904).

By Dr. M. HOLMBOE.

In a previous communication to this Journal in 1898 regarding psychiatry in Norway, I have given a summary of the number of insane according to the census taken in 1865 and in 1891. I gave then my opinion that the increase, as indicated by the latter census, depends certainly to some extent upon inaccurate investigation, but that it was still too great to be explained by that circumstance alone, especially as regards acquired mental disease. The results of the latest census, taken on December 3rd, 1900, are stated below, together with the two previous returns :

	1865	1891	1900
Imbeciles and idiots	2039	2431	4559
Acquired mental diseases	3156	5318	5897
Total	5195	7749	10456

In proportion to the population :

	1865	1891	1900
Imbeciles and idiots	1'835	1'823	1'491
Acquired mental diseases	1'539	1'376	1'380
Total	1'327	1'258	1'214

The considerable increase of the number of idiots from 1891 to 1900, as indicated by the two last censuses, is, however, only apparent. Because the terms used in the older returns had been misunderstood, so that in great part only well-marked idiots had been counted, these terms were changed in 1900. In consequence of this idiots, more or less educable, were counted in the last census. The returns, therefore, are not suitable for comparison with the earlier ones, but will,

when compared with those of the coming census, give a more correct base for the estimation of increase or decrease of congenital insanity.

On the other hand, the last census seems to indicate that the frequency of acquired mental disease has hardly undergone any change in the decennium 1891-1900 in proportion to the population.

The new State asylum for the northern part of Norway, at Roenvik, near Bodoe, which I mentioned in my last Report, was opened in October, 1902. It accommodates 250 patients, and is now full. It is probable that the new asylum at present fully satisfies the needs of that district for which it was built, and it has also been able to receive patients from other parts of this country.

The county of Akerstrus, which contains the well-to-do districts surrounding the capital, opened in 1904 a new lunatic asylum, at Blakstad, in Asker. It is built on the colony plan, and consists of a closed central brick building for about 50 patients and two open cottages, each for 25 patients, the one for women and the other for men. To this asylum, which is situated in a beautiful park, belongs a large farm, which will provide the patients with sufficient occupation. It was erected and is managed by the county, and is mainly intended for the accommodation of incurable patients, who have hitherto been cared for not so satisfactorily in private families. It was opened in one of the last weeks of 1904, and is now more than half full. The erection of this asylum indicates in my opinion a step in the right direction—namely, that the counties should build asylums for the incurable insane, while the State asylums in greater measure than heretofore should be reserved for the curables. Since the erection of the two last-mentioned asylums, there is now accommodation for 2060-2070 lunatics, *i.e.* nearly 1 per thousand of the population, and this ratio will be reached when the new asylum, which is being built by the community of Kristiania, is opened in the course of this year. It is to be hoped that the lack of accommodation for the insane, so long complained of, will then be materially overtaken.

As regards the private houses, where more than two lunatics are lodged and boarded (the so-called colonies), the Department of Justice has, since the beginning of 1902, introduced a more strict control, regulations having been promulgated intending to secure the patients a better hygiene, a more careful treatment, and a greater protection against fire. But we are striving to abolish these "colonies" and to provide room in asylums for most of these patients, so that only those who are suitable should get private care in families. These ought, in my opinion, to be accommodated singly, and there should not be a number of them at the same time in the same family.

The State has erected a new modern boarding-school at Levanger (near Trondhjem), for educable idiots, while one of older date at Christiania has been discontinued.

SPAIN.

By Dr. W. CAROLEU.

"Better late than never" is a Spanish proverb applicable to the recent ministerial Act introducing mental science into medical schools,

an attempted reform which has unfortunately been frustrated by the mania for economy. One cannot help thinking it is a mistake to appoint the clinical professors of internal pathology teachers of mental science, instead of introducing special sections into the hospital curriculum. As almost all teachers affect a contempt for psychiatry, such a scheme is obviously doomed to disaster. Doubtless we shall see this subject introduced into the programme of study, but students will leave the hospitals with no greater knowledge of psychiatric science than formerly. It is an old story in Spain that it is easier to attain to the shadow than the substance.

M. Casamado, a prominent official in the Hôtel de Ville, Barcelona, has rendered signal service both to medical practitioners and to laymen by collating in an admirable book the results of legislation relating to the insane, and more particularly to the admission of patients into asylums as provided for by the Act of 1885. We should like also to refer to the valuable leading articles on the same subject written by Dr. Rodriguez Mendez and appearing in the *Phrenopathical Review*. The existing laws on this subject present an unparalleled medley of vulgar prejudices and insane ideas. The certificates of insanity are entrusted to the care of the borough or district authorities, whilst towards asylums the attitude of the law is one of suspicion, favouring, as it does, the claims of individuals who are willing to take in lunatics as patients under single care. And this too in a country notorious for its lack of nurses! The confusion engendered by this most absurd legislation is well-nigh incalculable.

There are at present 38 lunatic asylums in Spain—from St. Bandilius, with almost 1300 inmates, to Our Lady of Carmel with 5; whilst in 24 counties there is not a single asylum. The proportion of insane to the total population is 60 per 100,000. There are 9000 patients in asylums, but if we include those who are confined in the Depôts in the Municipal Buildings, and the large number who are kept in private and boarding houses, this total would be considerably higher. The State provision for the mentally degenerate is very inadequate. Thus, there is no special building for criminal lunatics, while only one lunatic asylum, that of St. Elizabeth of Seganés, is supported by a Government grant. There is a similar lack of provision for backward children, imbeciles, idiots, alcoholics, and morphinomaniacs, for none of whom are there suitable buildings erected, the only exception being the Durain Asylum for feeble-minded children. Epileptics, on the other hand, have a magnificent asylum in Carabanchel Alto, in Madrid, but mentally afflicted patients are not admitted into this institution.

The number of lunatic asylums is increasing daily. Quite recently one has been erected at Pamplona; that, the Vasco-Navarro, is not yet opened, but is considered to be the best of the recognised institutions of this class. In Majorca, too, there is a project for the erection of a model building for the insane, who are all too numerous in the Balearic Islands. As a general rule, in Spain, the asylums are well attended by students, but scientific work is backward, and the material is not well selected. There are fourteen physicians on our legislative bodies and yet there is no sign of an awakening from this inaction or

of any attempt to introduce improvements into the legislation pertaining to the asylum treatment of the insane.

No alienist has yet investigated the mental condition of the Anarchist. Lombroso has no followers in Spain, and the only literature dealing with criminal insanity is by jurists and philosophers, such as Dorado and Gil-Maestre. A decided advance in this matter has, however, been made in the erection of the new prison at Barcelona, built with a view to individual sequestration and the separation of inmates according to their peculiar circumstances. There has been no attempt at the introduction of the reformatory system for that class which is on the border-land between insanity and crime. This system is being tried in the United States in the case of refractory children and fallen and repentant women, but up to the present the results have been entirely unsatisfactory, and several of these homes furnish incidents comparable to what one reads of in *Oliver Twist*.

In Dr. Rodrigo Gonzalez we have lost an eminent specialist and a man experienced in asylum management. Ciempozuelos, where he spent the greater part of his life, has suffered a great and well-nigh irrecoverable loss. In the midst of a very busy practice he published a valuable work entitled *On Insanities of the Will*, and at the Fourteenth Medical Congress his *Special Treatment for Alcoholics* received a very favourable criticism.

The literature of psychology is still scant. Rarely more than a single booklet is published in the twelvemonth; the majority of the contributions consist merely of extracts from speeches and articles occurring in periodicals, as Dr. Oto Esquirdo's *Aberrant Impulsion*, and *Conscient Psychosis*. Even in South America this aspect of the work shows a greater vitality, as witness quite a considerable number of books on mental science published in Lima, Mexico, and Monte Video, but especially in Buenos Ayres. The people who, in the fifteenth century, set an example to the civilised world by founding the first lunatic asylum ought to rouse themselves from this state of lethargy.

Part IV.—Notes and News.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

A QUARTERLY MEETING of the Medico-Psychological Association was held at the North Riding Asylum, Clifton, near York, on Thursday, February 23rd, 1905, at 3 p.m., under the Presidency of Dr. R. Percy Smith.

Present:—Drs. T. Stewart Adair, W. Lloyd Andriezen, M. Alex. Archdale, Robert Baker, Fletcher Beach, T. S. Clouston, Samuel Edgerley, John W. Geddes, F. Sidney Gramshaw, Ernest G. Grove, Frederic P. Hearder, J. Tregelles Hingston, Theo. B. Hyslop, J. Carlyle Johnstone, Robert Jones (Hon. Sec.), Herbert W. Kershaw, Murdoch D. Macleod, Thomas W. McDowell, Henry J. Mackenzie, S.

Rutherford Macphail, George Francis May, Charles A. Mercier, James Middlemass, Alfred Miller, Cuthbert S. Morrison, Arthur C. Nash, H. Hayes Newington (Treasurer), Bedford Pierce, George S. Pope, Daniel F. Rambaut, George M. Robertson, R. Percy Smith, John B. Tighe, Edmund B. Whitcombe, Ernest W. White, T. Outterson Wood, David Yellowlees.

Letters of apology for non-attendance were read from Drs. A. W. Campbell, C. Hubert Bond, P. W. MacDonald, Braine-Hartnell, and H. Rayner.

The minutes of the previous Quarterly Meeting were read and confirmed.

The following gentlemen were elected ordinary members:—Alexander, Edward Henry, M.B., M.R.C.S., Physician Superintendent, Ashbourne Hall Asylum, Dunedin, New Zealand (proposed by Francis Hay, T. S. Clouston, R. R. Alexander); Brown, Harry Egerton, M.D., M.P.C., Assistant Medical Officer, County Asylum, Rainhill, Liverpool (proposed by J. Wigglesworth, A. W. Campbell, Robert Jones); Devine, Henry, M.R.C.S., L.R.C.P.Lond., Assistant Medical Officer, West Riding Asylum, Wakefield (proposed by W. Bevan Lewis, W. Maule Smith, Robert Jones); Ferris, William, M.D., B.S.Lond., L.R.C.P., M.R.C.S., D.P.H., Assistant Medical Officer, Middlesex County Asylum, Tooting, S.W. (proposed by H. Gardiner Hill, C. W. Rolleston, A. N. Boycott)—(from South-Eastern Divisional Secretary); Hines, Arthur, M.B., Assistant Medical Officer, County Asylum, Stafford (proposed by J. W. Stirling Christie, B. Henry Shaw, Robert Jones); Hutchinison, Joseph Armstrong, M.D., M.S.Durham, M.R.C.S.Eng., Medical Officer of Health, Northallerton District; Medical Officer, H.M. Prison, Northallerton (proposed by Bedford Pierce, C. K. Hitchcock, H. J. Mackenzie)—(from Northern and Midland Divisional Secretary); Johnstone, George A., M.B., Ch.B.Aberd., Senior Assistant Medical Officer, Montrose Royal Lunatic Asylum (proposed by John G. Havelock, Robert B. Campbell, Robert Jones); Kingsbury, William Neave, M.R.C.S., L.R.C.P., Assistant Medical Officer, Middlesex County Asylum, Tooting, S.W. (proposed by H. Gardiner Hill, L. W. Rolleston, A. N. Boycott)—(from South-Eastern Divisional Secretary); Le Fanu, H., M.B., C.M. Aberd., Assistant Medical Officer, County Asylum, Prestwich, Manchester (proposed by W. Sharkey, David Orr, Robert Jones); Paine, F., M.R.C.S., L.R.C.P., Assistant Medical Officer, Claybury Asylum, Woodford Bridge, Essex (proposed by Robert Jones, George Greene, and C. T. Ewart); Stillwell, Henry Francis, L.R.C.P.E., L.R.C.S.E., Assistant Medical Officer, Barnwood House, Gloucester (proposed by James Greig Soutar, Arthur Townsend, Robert Jones); Thomson, James Hutcheon, M.B., Ch.B.Aberdeen, Assistant Medical Officer, Earlswood Asylum, Redhill, Surrey (proposed by Charles Caldecott, H. Hayes Newington, and Robert Jones); Williams, D. J., M.R.C.S., L.R.C.P.Lond., Medical Superintendent, Asylum, Kingston, Jamaica (proposed by Alan Rigden, R. R. Alexander, Robert Jones).

The PRESIDENT referred to the death of Dr. Harry Arthur Benham, and to his valuable services as the former Registrar of the Association. He moved that a vote of sympathy and condolence from the Association be conveyed to the family of Dr. Benham. This was unanimously agreed to.

The PRESIDENT also regretted to announce the resignation by Sir John Sibbald of the office of President Elect, owing to ill-health. The President referred to the valued services and distinguished career of Sir John Sibbald in the cause of the insane, and moved the following resolution, which was unanimously adopted:

“Resolved unanimously that the resignation by Sir John Sibbald of the office of President Elect of the Medico-Psychological Association of Great Britain and Ireland, and the subsequent Presidency of the Association, owing to ill-health, be received with much regret, and that the cordial sympathy of the Association be conveyed to Sir John Sibbald, whose distinguished career had done so much to improve the condition of the insane in this country, and whose long services had reflected so much credit upon the Association, of which he is an Honorary Member, and that a copy of this resolution be sent to Sir John Sibbald.”

It was also resolved to forward a copy to Sir John Sibbald, signed by the President and the Honorary General Secretary.”

Dr. CARLYLE JOHNSTONE: I propose the following resolution:

“That the period of training in an institution for the treatment of mental disorders prescribed by the Regulations must be served in one such institution.”

As you know, all candidates for the certificate must now be trained in “an

institution for the treatment of mental disorders," for not less than three years (or two years in the case of those who possess the certificate of a general hospital).

I suggest that the mere prolongation of the term of training will be of little use, unless at the same time we secure that the training shall be more systematic, continuous, and complete, and insist on having some guarantee as to the character and moral qualifications of candidates. This cannot be secured or guaranteed as long as candidates are allowed to take part of their training in one asylum, part of it in another, and perhaps part in a third or fourth.

My motion is made in the interests of the public and of our institutions, in the interests of our patients, and in the interests of the nurses themselves.

A nurse in a general hospital must serve for three or four years, or other fixed term, continuously in that hospital before she can obtain the certificate of the hospital. The fact that she has obtained the certificate implies that she has received a continuous training of a certain standard, and that her moral qualifications and personal character are of a certain standard. The standard may differ in degree in different hospitals: the value of the certificate depends on the credit which is attached to the hospital which grants it. But the certificate of every reputable hospital is a guarantee of both technical training and of character. Under the present conditions and regulations our certificate guarantees neither the one nor the other. The nature and quality of the technical training provided in our asylums differ greatly in excellence in different institutions. In many asylums nurses can procure a training probably as good as can be got, in general nursing, in any hospital. This cannot be said of all asylums.

Judging from my own experience and from the reports of others, I would say that the practical instruction of nurses and attendants is carried out in certain of our institutions in a very loose, incomplete and perfunctory manner. So far, the Association has not found it possible to remedy this defect in its regulations. The Association can only rely on the capacity, judgment, and good faith of the superintendents and their co-adjutors. The Association has confessed its inability to give any guarantee as to the character or moral qualifications of the holders of its certificate. All that is done is that the superintendent who countersigns the candidate's application must state that the candidate "is a person of good moral character and suitable for attending on the insane." And the superintendent may be required to vouch for this small measure of "morals" after only a few months', or, for the matter of that, a few weeks' acquaintance with the candidate. As long as the candidate has complied with the necessarily meagre forms imposed by the Association, the superintendent is morally obliged to countersign his application as long as he knows nothing positively bad about him. The nurse may have had so many months of sound training and so many of unsound, or, while the training has been got in different institutions, it may all have been good or all indifferent or bad; but we have no guarantee of its goodness or its badness. The superintendent who signs the paper and the certificate is only the last of the various superintendents through whose hands the nurse has passed, and he can only speak for himself, although apparently he speaks for the others and for the Association. It may be confidently asserted that in many cases our certificate means nothing more than that the holder has spent a certain period of time in two or more asylums, and that he or she has succeeded in getting the official handbook up by rote.

If the entire period of training were served in one institution, so as to permit of the technical instruction being continuous, systematic, and comprehensive, and so as to allow time for the authorities to determine the personal character of the candidates, a quality which cannot be gauged by any "examination," written or spoken, we should know what the certificate is worth, and we should find in time, I believe, that it would be worth a great deal more than it is at present. A nurse ought to be able to get a satisfactory technical training by the end of three years. By the end of three years a superintendent ought to be able to state whether a nurse possesses those moral qualifications, without which mere technical skill is useless or dangerous. Just as in the case of general hospitals, the value of the certificate would of course depend very much on the credit which was attached to the institution in which the training was got; but this would not be a disadvantage.

The continuous term of training in one institution would also do a vast deal

towards discouraging and diminishing that spirit of restlessness, that deplorable habit of wandering from one asylum to another for the mere sake of change or for no legitimate object, which is so subversive of all discipline, so prejudicial to the interests of our patients, and so unbecoming of anyone aspiring to the serious and responsible calling of a nurse.

It needs no argument to show that the present unsystematic, disconnected, untrustworthy method of training our nurses, if it can be called a method of training, is as injurious to their interests as it is to the interests of our patients. We know how hospital nurses continue to look askance at asylum nurses; we know how hospital authorities still regard our nurses as an inferior class. Can we wonder at this? Until asylum nurses take as serious and high a view of their calling as is taken by hospital nurses of theirs, they will continue to be regarded as an inferior class. And for this state of matters we are responsible.

With the extension of the term of residence in asylums, we may take it that a smaller number of nurses will go up for the examination of the Association. I do not think that this is altogether to be regretted. But, if the number is to be diminished, let us see to it that the quality shall be improved. Let us not be content until we have given our nurses and attendants a training which, within its own limits, shall be as complete, as continuous, and as systematic as that required by any general hospital of good repute,—until we can show that their moral qualities are as sound and satisfactory as those possessed by any who follow the nurse's calling; until we have established them in a position equal to that held by other nurses. The only argument that I have so far heard against my proposal is that it would entail some self-sacrifice on the part of our nurses. Of course it would, and why should it not? I ask no sacrifice of them which hospital nurses are not willing to yield. It has been suggested that nurses would be hardly treated, who had spent a year or two in an institution, where the training was inferior or insufficient, and who had gone on to another institution where the training was conducted on sounder lines, if they were compelled to serve the whole term of three years in the latter institution. I cannot regard this as a serious objection. If there are such inferior institutions, the sooner they are removed from our list of training schools the better, and the sooner the nurses leave them the better for themselves and for all interests concerned. It is possible that exceptional cases may occur which might call for exceptional treatment. This is already provided for by our Regulation No. 4.

Finally, if State Registration of Nurses should be imposed by legislation, it is very doubtful whether our present scrappy, inconsistent style of training will be recognised as being up to the required standard. Let us voluntarily set our house in order before we are compelled to do so.

Dr. WHITCOMBE seconded the resolution.

Dr. T. B. HYSLOP objected to discussing moral grounds in connection with the present motion, and sympathised with nurses who might enter institutions which presented too narrow a field for their complete training, and which, if the resolution were passed, they could not alter without detriment to their future. He was in favour of permitting nurses to migrate to institutions in which they might obtain a full and competent knowledge of the subjects as set forth in the syllabus prescribed for the Certificate.

Dr. T. S. CLOUSTON complimented Dr. Carlyle Johnstone upon his own system of training, as also upon his thoroughness as an examiner, but he declined to follow his lead, or to agree with the views expressed by himself and Dr. Whitcombe, in regard to the training of nurses. He looked upon nurses as women who had their livelihood to obtain, and they must do the best they could for themselves. In his opinion it would be an injustice to penalise the best of the nurses, for, morally and intellectually, the nurses who seriously undertook to be trained were the best of their class, therefore as a question of expediency and of justice he opposed Dr. Johnstone's motion. He regretted that the question of morals had been drawn into the discussion, and he failed to see, if a person was found to be unsuitable within a period of eighteen months, why any additional period was necessary. Furthermore, he did not like this imputation in regard to our nurses, which he considered to be an unworthy reflection, and only tended to depreciate the status and office of a self-denying, hard-working, and earnest class of women.

Dr. R. MACPHAIL referred to his own experience, which tended to support the resolution.

Dr. ERNEST WHITE feared it was the egotistic and selfish side of one's nature which prompted further restrictions upon nurses' service. It would be especially hard upon nurses who had entered indifferent institutions, or who had not entered the best asylums, to be compelled to stay there for three years. He contrasted the freedom accorded to medical students, who might pursue their studies in any hospital, provided the syllabus were complied with; and he felt the resolution would tend to "gag" those desirous of advancing themselves; for these reasons he agreed with Dr. Clouston.

Dr. A. MILLER stated that, as Registrar of the Association, he knew there were nearly 7000 nurses on the register, and it was a question whether all these deserved their certificates. He thought that among attendants there were many "migratory birds," and this changing was as bad for them as for the patients.

Dr. WHITE.—"As they are now called birds, I will say 'caged,' not 'gagged.'"

Dr. MERCIER referred to the weakness in Dr. Whitcombe's argument in regard to the statement made that nurses migrated from one asylum to another, and changed their names. If the schedule and the record were properly filled up he failed to see how the change of name could occur, or, if it did occur, why it was not detected. He (Dr. Mercier) certainly advocated the possibility of every nurse advancing her prospects and obtaining the advantage of thorough training in the best institutions. Such latitude and freedom of choice commended themselves to his judgment as benefiting alike both the nurse and patient.

Dr. G. M. ROBERTSON regretted that, in his opinion, sufficient attention had not been given to the moral certificate. He thought there were two elements in the question of teaching nurses, viz. the technical training, and the nurse's own private character, *i. e.* her reliability and steadiness as opposed to her so-called morality. He instanced nurses leaving for mere capriciousness, *e. g.* one attendant resigned because his position on the "cricket list" was changed; and again, a nurse, because of alteration in the date fixed for her night duties. He considered it well in the interest of discipline that the resolution should be supported.

Dr. HAYES NEWINGTON reminded the meeting that all questions of morality had been deliberately dissociated from the certificate, which was a record only of training now. He could not see that training would be prejudiced by being carried on in more than one asylum.

Dr. C. S. MORRISON supported the motion.

Dr. BEDFORD PIERCE pointed out that if the training were not in one institution there would be a want of system in the training which would be prejudicial to its efficiency. Under the new regulations he concluded it would become more general to have a definite course of training for three years, such as Dr. Menzies, at Cheddleton, now gives, and for some years past has been given at the Retreat.

Dr. D. YELLOWLEES regretted that the question of moral character had been introduced into the discussion, although no member of the Association more appreciated its importance. He asserted that the Association, under its present rules, granted a certificate of "proficiency in mental nursing," and of that alone. The Association did not and could not guarantee moral character, and should never attest it. He was aware that medical superintendents found great difficulty from frequent changes in their staff, but they had often themselves to thank for this; if the superintendent whom the nurse had left was honest enough to give full particulars, and the superintendent to whom she went was wise enough, the nurse would probably not be taken, and there would soon be less migration. But we must not penalise the nurse for this. If proficiency cannot be obtained in two asylums, a great deal of injury would be done to nurses who were seeking better training. There might often be private and personal reasons, some of which he named, why a nurse should desire to leave one institution for another, and it would be inflicting a loss and an injustice upon the nurse, not to permit her to count her past service as part of the period of three years' training required by the rules.

Dr. F. P. HEARDER also spoke against the resolution.

Dr. OUTTERTON WOOD then proposed the following amendment:

"That the period of three years' training for the certificate granted by the Medico-Psychological Association of Great Britain and Ireland for proficiency in mental nursing be served in not more than two asylums."

This amendment was seconded by Dr. YELLOWLEES and carried by 18 votes to 12. It was finally adopted as a substantive motion by 21 to 10 votes.

Dr. THEO. B. HYSLOP then read his paper entitled "The Problem of the Insane in its Relationship to Overcrowding and Poverty."

Dr. BEDFORD PIERCE exhibited the "William Tuke Medal," which is awarded by the Committee of the Retreat to nurses and attendants who have completed their four years' training and have obtained the Retreat certificate of proficiency.

The medal is in bronze, and was designed by Mr. Nelson Dawson; it bears the likeness of William Tuke, the founder of the Retreat in 1792, and the motto "Cum bona voluntate servientes."

Dr. LLOYD ANDRIEZEN'S paper and lantern demonstration were postponed until a future meeting.

The members dined together in the evening at the Station Hotel, York.

SCOTTISH DIVISION.

A Meeting of the Scottish Division of the Medico-Psychological Association was held by the invitation of the Directors at Murray's Royal Asylum, Perth, on Friday, the 10th March, 1905, at 2 p.m.

The following members were present:—Drs. Angus, Alexander, Carlyle Johnstone, Clouston, Devon, Easterbrook, Grant, Havelock, Ireland, Keay, Kerr, Marr, Mitchell, Oswald, Richard, G. M. Robertson, Rorie, Urquhart, Yellowlees, and L. C. Bruce (Divisional Secretary).

A letter of apology was intimated from Dr. Turnbull.

Dr. Keay was called to the chair.

The minutes of last meeting were read, approved of, and signed.

Harry Thwaites, M.R.C.S., L.R.C.P.Lond., Medical Superintendent of the Mount Lebanon Asylum, Asfuriayel, near Beyrout (proposed by Drs. Yellowlees, Clouston, and G. M. Robertson) was elected an ordinary member of the Association.

Dr. Yellowlees and Dr. Turnbull were elected Representative Members of Council, and Dr. Lewis C. Bruce was elected Divisional Secretary. The following recommendations were made to the Nominations Committee:—That Dr. Turnbull be appointed to the Nursing Examinership; that Drs. Yellowlees, Clouston, Turnbull, G. M. Robertson, Marr, and Bruce be placed on the Educational Committee; that Drs. Yellowlees, Clouston, Urquhart, Carlyle Johnstone, and Bruce be appointed to the Parliamentary Committee.

The members then took up the adjourned discussion on the Report of the Statistical Committee as to the Revision of the Statistical Tables.

Dr. URQUHART moved, "That the Division should now discuss the tables, commencing with Table I." Dr. CLOUSTON seconded.

Dr. CARLYLE JOHNSTONE moved an amendment, "That the Report and Tables be referred back to the Statistical Committee for further consideration and report." Dr. BRUCE seconded.

Drs. YELLOWLEES, URQUHART, CARLYLE JOHNSTONE, CLOUSTON, G. M. ROBERTSON, DEVON, and BRUCE discussed the general principles of the revised Statistical Tables. On being put to the meeting Dr. Urquhart's motion was carried by a majority of 12.

The Division then discussed Table I, and the following suggestions were made:

i. That "Total cases admitted" should be divided into "First admissions" and "Not first admissions."

ii. That Table I be reduplicated into (a) "Direct admissions;" (b) "Indirect admissions."

iii. That the words "Average daily number resident during the year" should read "Average daily number on the Register during the year."

iv. That a separate statement on the general lines of Table I be printed, distinguishing Private cases from Rate-supported cases.

Suggestions regarding Table II were as follows:

i. That the second column from the end should read "Percentage of the recoveries of the direct admissions."

ii. That the admissions be divided into "First admissions" and "Not first admissions."

iii. That Direct and Indirect admissions be differentiated under separate columns.

Dr. URQUHART suggested that Table IIA of the present Statistical Tables be retained as an optional table.

As time was not available for further discussion, Dr. G. M. ROBERTSON, seconded by Dr. KERR, moved "That a Committee consisting of Drs. Clouston, Urquhart, Oswald, and Marr be appointed to meet the Scottish members of the Statistical Committee, and to take such steps as they consider necessary to collect the opinion of members of the Scottish Division regarding the tables, to codify these opinions as far as possible, and present the result to a special meeting of the Division." This was agreed to.

A vote of thanks to the chairman terminated the meeting. The members afterwards dined together in the Station Hotel, Perth.

IRISH DIVISION.

SPECIAL MEETING.

A Special Meeting of the Division was held, with the sanction of the President of the Association, at the Royal College of Physicians, Dublin, on Friday, February 17th. Dr. Oscar Woods occupied the chair, and there were also present Drs. O'Neill, Norman, Harvey, Oakshott, Finegan, W. Graham, J. J. Fitzgerald, and W. R. Dawson (Hon. Sec.).

The minutes of the last meeting were confirmed and signed, and the Secretary explained that the President had sanctioned the calling of the meeting in order to consider the recent Order of the Irish Local Government Board, in so far as it affected the management of asylums, it being clearly understood that any action taken would be on behalf of the Division only. A letter was then read from Dr. M. J. Nolan, in which he regretted his inability to attend, and called attention to certain points in the Order which he considered absurd and unworkable.

A prolonged discussion then followed, in which all the members present joined, and though some speakers approved of certain isolated points in the Order, the opinion of the meeting was condemnatory of it as a whole. Finally the following resolution was proposed by Dr. W. Graham, seconded by Dr. J. J. Fitzgerald, and passed unanimously:

"That Drs. Norman and Woods be empowered to embody a resolution on the terms as discussed, and that same be forwarded to the Inspectors of Lunatics."

Dr. Woods being obliged to leave, Dr. Norman was then voted to the chair; and Dr. Finegan wished to propose a resolution with reference to Youghal Auxiliary Asylum. As the meeting had been called for a specific purpose this was ruled out of order; but the members present informally expressed a wish that the Secretary, or, failing him, Dr. Nolan, should attend the meeting of the Association at York, and lay the facts before the Parliamentary Committee with a view to securing their good offices, and that if neither could go the Secretary should bring the matter in writing under the notice of the said Committee.

The meeting then terminated.

RECENT MEDICO-LEGAL CASES.

REPORTED BY DR. MERCIER.

The report of the Australian case credited in our last issue to Dr. Cleland was, in fact, kindly sent by Dr. Andrew Davidson, of Callan Park, to whom Dr. Mercier desires to apologise and make this reparation.

[The Editors request that members will oblige by sending full newspaper reports of all cases of interest as published by the local press at the time of the assizes.]

The Guardians of Coventry v. the Guardians of Epsom.

This was a very curious case which turned upon the precise time at which a person became insane. About two and a half years ago a girl, named Amelia

Massara, entered St. Joseph's Roman Catholic Convent at Coventry, and became successively a postulant and a novice, but did not actually take the vows and become a nun. At the end of the two and a half years she resolved to leave the nunnery and return to the world, and preparations were made accordingly. She discarded her religious garments and assumed others, and was escorted into the train for Euston, her intention being to live with friends at Sutton, in Surrey. She actually arrived at Sutton Station, having been unaccompanied since she left Coventry, and was found by the stationmaster at Sutton, wandering aimlessly about the platform. The friends at Sutton do not appear to have expected her, and when she arrived she cried "Oh, Mrs. Lowe, take me in, take me in," and then almost fainted. Her manner was very peculiar, and when Mr. Lowe saw her, he said at once, "Oh, she's off her head." Next day she was certified and taken to Brookwood Asylum, where in time she became convalescent. An order was then made by the Surrey Justices for her removal to Coventry, and against this order the Guardians of Coventry appealed. It appears that if the girl was insane when she left Coventry, she would have been properly chargeable to Coventry, but if she was then sane, she would have her settlement in Epsom. She was unquestionably insane when she arrived at Sutton, and Dr. Barton, of Brookwood, testified that, in his opinion, she had been insane for "some time" before entering the asylum, and that her insanity while at Coventry had been overlooked. On the other hand a number of nuns, who had been in daily contact with Massara, proved that she was a bright intelligent girl, and had shown no signs of insanity while in the convent. Upon this evidence the court (Surrey Quarter Sessions) found that Massara was capable of forming the intention of leaving Coventry at the time she did so, and allowed the appeal.—*Daily Graphic*, January 7th.

The case is probably unique. It certainly seems that if the girl could find her way unassisted from Euston to Sutton, she must have had her wits about her sufficiently to form the intention of leaving Coventry, which was the fact that decided the case.

"CORK AUXILIARY ASYLUM.

"Mr. Sloan asked the Chief Secretary if he was aware that Dr. Kelly, Roman Catholic Bishop of Cloyne, had been permitted by the Lord Lieutenant, and contrary to the advice and remonstrance of the Inspectors of Lunatic Asylums, to detach 350 lunatics from the County Asylum in Cork and lodge them in an unused industrial school at Youghal, which he had prepared for this purpose; that the Bishop received a capitation grant for each patient, that there was no resident doctor to take charge of these patients, nor any qualified nurse in charge of them, that the house, built and arranged for a doctor, has been handed over to the chaplain, and that the Resident Medical Superintendent of the Cork Asylum had been refused permission to visit the auxiliary asylum; and, if so, would he say what steps, if any, did he intend taking in the matter.

"Mr. Wyndham said that in 1901 the Lord Lieutenant, under Section 9 (4) of the Local Government Act of 1898, signified his approval of the plans for the conversion of an industrial school building at Youghal into an auxiliary asylum, established for about 400 patients, under the 76th Section of that Act. The plans which were submitted in 1900 by the Cork District Asylum Committee, of which Dr. Kelly, Lord Bishop of Ross, was a member, were recommended for His Excellency's approval by the Inspectors of Lunatic Asylums. A capitation grant of 2s. per week was payable for each patient in the auxiliary asylum under Sections 58 and 76 of the Act. There was no resident doctor as the committee decided to appoint a visiting medical officer instead, but the consent of the Lord Lieutenant to the appointment of a visiting medical officer has only been given as a tentative measure which would be open to reconsideration in the event of the arrangement being found defective. The institution had been placed in charge of a community of nuns, who were assisted by the ordinary asylum attendants. It was understood

that only Catholic patients were to be sent to the auxiliary. The house built for a doctor had been handed over as a residence for the chaplain. The resident medical superintendent of the Cork Asylum had not been refused permission to visit the auxiliary asylum, but the committee of management had passed resolutions taking away from the resident medical superintendent all responsibility for the discipline and domestic management of the auxiliary. The committee had been informed that these resolutions were illegal, and had been called upon to correct such illegality."—*The Irish Times*, February 24th, 1905.

Our contemporary, the *Medical Press and Circular*, March 1st, 1905, comments as follows upon the above question put and answered in the House of Commons, February 23rd:—

"The matter referred to is a most serious one, and has been discussed at various times in the medical journals during the past couple of years. We are glad to note that the Lord Lieutenant's approval is only 'tentative,' but we do not regard even that as satisfactory. The housing of some hundreds of lunatics, mostly, we believe, epileptics, in an asylum without direct and constant medical control is a distinctly retrograde step. Apart from the fact that the general management of such an institution should be in medical hands, it is absolutely necessary for the safety of the patients themselves that a medical man should always be present in the institution. In case of accident through choking at food, or falling in a fit, or through homicidal attacks—and no insane patients are more likely to develop homicidal tendencies than epileptics—immediate medical attention is required. These facts are so obvious that we entirely fail to understand how the Irish Executive can even for a day sanction the present arrangement.

"Mr. Wyndham suggests the possibility of change 'in the event of the arrangement being found defective.' We suppose what is meant is that when some unfortunate patient's death has occurred for lack of immediate medical care, the Lord Lieutenant will be open to reconsider the matter."

"SLIGO DISTRICT LUNATIC ASYLUM.

"At the monthly meeting of the governors of the Sligo District Asylum, on February 21st, an application from Dr. Petit, Medical Superintendent, applying for three months' sick leave, was considered. He submitted along with it a certificate from Drs. MacDowel and Martyn to the effect that he was suffering from insomnia, and was totally incapable of discharging his duties. The members of the board bore testimony to Dr. Petit's efficiency and the highly satisfactory discharge of his duties. In fact, as a governor remarked, 'no better man could be got.' But, to encourage the others, they declined to give him the three months' leave recommended by his medical attendants unless he appointed and paid a substitute.

"There was a good deal of speaking as to the necessity in the interests of the institution of a substitute being appointed. We are thoroughly in accord with the governors in this. The asylum could not safely be left in charge of the assistant medical officer. The work would be too much, and the responsibility too serious, for one doctor; but we part company with them when they want to impose the payment on the medical superintendent. The responsibility and strain of so anxious a charge as that of a huge lunatic asylum is very great indeed, and tries the most robust. When a medical superintendent breaks down under the burden it is only just, no matter what his salary is, that the governors should pay his substitute. It is another instance of the ratepayers being trotted out to excuse cruelty and injustice. We very much doubt whether the ratepayers would object to a highly efficient officer, broken down by faithful discharge of his duties toward the most afflicted class of the community, obtaining the requisite rest for restoration of health without being obliged to pay for the discharge of his duty, or, as a governor callously put it, 'If he did not like to do it, he could resign.' This is poor encouragement to medical officers to thorough discharge of their duties."—*Medical Press and Circular*, March 8th, 1905.

To this genial record we have only to add that Dr. Petit has been twenty-three years Medical Superintendent of the Sligo Asylum, and between thirty and forty an Irish asylum officer altogether.

MONAGHAN ASYLUM.

From the *Anglo-Celtic* newspaper of February 25th, 1905, published in Cavan, we extract the following account of certain proceedings at the February meeting of the Joint Committee of Management of the Monaghan and Cavan District Asylum. Through considerations of space we have here and there omitted matters that did not seem essential, indicating such omissions by dots.

"THE CHARGE AGAINST THE ENGINEER.

"A report was forwarded by the Inspectors of Lunacy, which stated:—On the 8th February, 1905, the inspector of lunatics held an inquiry on oath at the Monaghan District Asylum into a charge made against Mr. Walter Brydon, the engineer, of having, as alleged, made a criminal assault on a female patient named Sarah Beatty. . . . Mr. Chambers, K.C. (instructed by Mr. John Gillespie, solicitor), appeared on behalf of Mr. Brydon, and Mr. J. C. R. Lardner, solicitor, appeared on behalf of Nurse Bridget Holland. . . . The matter was first brought under notice by the Roman Catholic Chaplain, who stated, confidentially, on the 17th January, to the Resident Medical Superintendent and the Head Nurse, that he had been informed that on a day in December the engineer and patient, Sarah Beatty, had been together in a dormitory of No. 4 Division under circumstances indicating that immoral conduct had taken place between them. The reverend gentleman made it perfectly clear that he expressed no opinion whatever as to the truth or otherwise of the allegation, but stated that he considered it his duty to inform the Resident Medical Superintendent of the matter with the view of having it investigated. The Resident Medical Superintendent, therefore, interrogated the nurses of the division where the patient was located, but could not obtain any evidence in support of the charge, or any information which he considered sufficient to justify him in reporting the matter to the committee or to the inspectors. No further action was taken in the matter, perhaps partly in consequence of Dr. Taylor being incapacitated from duty through illness. On the 27th January he made further inquiries, as the result of which he felt it incumbent on him to consult two members of the committee who reside near the asylum, with the view of deciding whether any steps should be taken. At this stage the matter was brought under the notice of the inspectors by a communication received on the 28th January, and signed "J. Clarke, Glasslough Street, Monaghan." Two letters from the inspectors thus addressed were, however, returned through the post marked, "not known; opened by J. Clarke; not for me." In consequence of the Resident Medical Superintendent's report on the allegations contained in the letter signed "J. Clarke," the inspectors felt it their duty to hold an inquiry on oath regarding the matter. At the inquiry the only direct evidence tendered in support of the charge was that of Nurse Holland, and this evidence is, in the opinion of the inspectors, altogether unworthy of credence.

"The report having reviewed the evidence, stated that Nurse Holland admitted in cross-examination by Mr. Chambers that her previous statements to the Resident Medical Superintendent were lies, and that she would not hesitate to make false statements to her superior officers when not on oath. Mr. Brydon, who is over sixty years of age, has been almost thirty-six years in the institution, and he has always borne an excellent character, denied that there was any foundation whatever for the charge.

"The report went on to state that:—It is a significant fact that the date first mentioned as that on which the occurrence took place, viz., the 4th December, was a Sunday, a day on which Mr. Brydon was not in the wards at all after 10 o'clock a.m. If, as Nurse Holland swore, no notice was taken of the matter by the charge nurse, it seems extraordinary that Holland did not at the time carry her complaint to the chaplain or one of the superior officers, as she was bound to

do by the rules for the management of the asylum. It would appear that there is some ill-feeling amongst the officials of the institution in consequence of reports having been made against some of the attendants by Mr. Brydon's wife in her capacity as gatekeeper, but there is no necessity for the inspectors to enter on the consideration of the reasons which might explain the bringing forward of the infamous charge which formed the subject of the inquiry, as, in their opinion, there was absolutely no evidence on which reliance could be placed, brought forward in support of the charge against Mr. Brydon. In conclusion, the inspectors would point out that it is for the committee to consider whether Nurse Holland, who, on her own admission, is capable of such faithlessness in the discharge of her duties and untrustworthiness in her statements, is a proper person to be left in charge of so helpless a class as the insane. The inspectors have no hesitation in expressing their opinion that she is entirely unfit for the post she occupies." [Here the report, as given by our contemporary, ends, and the discussion of the matter by the Committee proceeds.]

"Rev. Mr. Davidson said they ought to give some expression of their opinion, not merely in regard to this nurse, but they should also express their opinion on the entire case, and assure that unfortunate engineer, who was driven, he was sure, nearly to madness and suicide by these infamous accusations, of their continuous confidence in his integrity and morality. It was perfectly clear from the evidence that a fearful conspiracy was entered into by some persons to ruin him, and, except they took some action to put down things like that, they did not know who would be the next victim, or who would be the unfortunate official of that institution who would have a similar charge brought against him in the future. He had the unfortunate privilege of listening to the greater part of the evidence, and he thought the charges that were made by this nurse were concocted on the whole. He proposed the following resolution:—"The Committee express their great satisfaction that the inspectors, after a very careful inquiry, have pronounced Mr. Brydon, the engineer, clear of the infamous charge brought against him. They are delighted that the asylum has thus been cleared of the great scandal which would otherwise have attached to it; and they put on record their confidence in the official in question, who has faithfully served this institution for thirty-six years without any previous complaints." He moved the resolution in justice to the poor man.

"Mr. M'Carren would like to know what conspiracy was entered into against the engineer. Rev. Mr. Davidson—His wife is the gate-keeper, and she reports any person coming in under the influence of drink. We know ourselves she is very unpopular. Mr. Harman thought there should be a rigid stop put to drink in the institution. It was a curse in the institution. That was one of his reasons for voting against increase of salaries there. Mr. M'Manus asked Dr. Taylor what had previously been the character of the nurse who preferred the charges against the engineer. Dr. Taylor—She has been a very short time in the asylum. I have nothing to say to her, and she was never reported to me for any offence.

"Mr. Mullen said it was unprofessional of Mr. Gillespie to say that he (Mr. Mullen) had anything to do with the letter signed John Clarke. . . . Dr. Taylor neglected his duty in not reporting the matter to the Committee, as he had as much evidence when he sent for Mr. Trainor and myself. . . . You tried to shift the responsibility of the case on myself and Mr. Trainor. . . . Mr. M'Manus said if the Committee had heard the case it would never have gone to the inspectors. Several charges of drunkenness were brought on that day month before the Committee, and they dismissed them all. They would have hesitated before calling on the inspectors to hold an inquiry. Dr. Taylor hardly discharged his duty to the Committee in a proper manner. . . .

"Mr. Mullen.—I move that the report be marked read. Mr. Smith—I second it. Rev. Mr. Davidson said that he felt constrained by a sense of duty to move that the recommendation of the inspectors be carried out with regard to Nurse Holland, as she admitted that she would not hesitate to tell lies to her superior officers, and then how could she be relied on to tell the truth in future. Rev. Mr. Davidson further referred to the statement made with reference to her on the report of the inspectors. The Chairman seconded the amendment. . . .

"On a division the amendment was defeated, the Chairman and Rev. Mr.

Davidson only voting for it. Mr. Mullen's motion was then carried and the report of the inspectors marked read. . . . The matter then ended."

COMPLIMENTARY PRESENTATION TO DR. IRELAND.

ON the afternoon of 4th March a large number of Dr. Ireland's friends met him in the library of the Royal College of Physicians, Edinburgh, and presented him with an illuminated address and a sum of money. The President of the College (Dr. John Playfair) was called to the chair on the motion of Dr. Joseph Bell.

Dr. JOHN THOMSON, who acted as Secretary and Treasurer of the fund, read apologies for absence from Sir William T. Gairdner, Dr. Needham, Dr. Shuttleworth, Professor Chiene, and others.

Dr. CLOUSTON then made the presentation in a happy speech. Dr. Clouston said that until Dr. Ireland took up the work the subject of developmental defects of the human brain in idiocy and imbecility did not attract much interest in this country. Dr. Ireland had, by his industry and intellectual power, advanced its boundaries, and put it on a far higher scientific basis than it had ever been before. Dr. Clouston concluded by reading the address, which is as follows:

"On the occasion of the fiftieth anniversary of your medical graduation, and in token of our admiration of your half-century of strenuous work, we desire to offer you our hearty congratulations, and to ask your acceptance of the accompanying gift. You entered your profession at an epoch when modern medicine was laying its foundations on a scientific basis. Your teachers in the University of Edinburgh were men of the highest gifts, and, catching their spirit, you have yourself worked hard for the advancement of medicine and the abatement of human suffering in many important ways. Severely wounded at the outset of your career in gallantly doing your duty during the Indian mutiny, and suffering from the effects of the wound ever since, you have not taken life easily or spared yourself the fatigue of special brain effort. In literature, in science, and in history you have made your mark on your time. You have opened up a new path in biography by your application of medico-psychology and studies in heredity in the elucidation of the lives of men who have made history. Showing how well you hit the mark, one of those studies of an Emperor of Russia was excluded from circulation in that country. These studies were not only scientific, but were also vivid and interesting to all intelligent readers. *The Blot upon the Brain* and *Through the Ivory Gate* will, we feel assured, hand down your name to coming generations.

"In that department of medicine which you have made specially your own you have built up a world-wide reputation. The *Mental Affections of Children* is our standard work on developmental defects of the mind. Combined with your practical work in this department at Larbert, that book makes the profession of medicine and humanity your debtor. Your original papers on mental and nervous disease, and on many other departments of medicine, scattered in many journals, are all of much interest and value. Your numerous translations and abstracts of important papers in foreign journals have been of great use to your readers, and showed that you were willing to undertake even the drudgery of science on their behalf. Many foreign scientific societies have shown their appreciation of your work by conferring on you their honorary membership.

"Your life has been one of steady effort. Your stores of knowledge, through your extensive reading, have always been willingly placed at the disposal of your professional brethren. To few of their profession could they go with such a certainty of help for valuable reference.

"Above all those merits, your personal character, combining modesty and genial humour, earnestness, and truthfulness, have won our respect and affection. We desire most cordially to express to you our wishes for a long and happy life of still further usefulness. We believe that you will always enjoy the happiness of the man who 'keeps himself simple, good, sincere, grave, unaffected, a friend of justice, considerate, and strenuous in duty.'"

Dr. IRELAND, in reply, said that he found himself in a very difficult position, although he noted that there was no reference to his faults and failings in what

Dr. Clouston had said, probably because it was considered that any such reference would hardly fit the occasion. He also remarked that nothing was said as to his skill in speaking, so that they would not expect him to give an oratorical display. Dr. Ireland recalled that he had entered the Honourable East India Company's service shortly before the mutiny broke out, and that he was unfortunate in being so severely wounded that it was a year before he could leave his bed, and three years before he could undertake the voyage home. For ten years work was impossible for him, and he found himself at the end like a bird with a broken wing. There seemed to be an opening for him in the department to which he had devoted his life, and, having a certain facility in writing, he had done his best to advance the interests, in education and care, of idiots and imbeciles. Although Dr. Ireland recognised that his life was drawing to a close, he rejoiced to say that he felt stronger than he did forty years ago; yet he had to admit that old age, from which there was no recovery, might be expected soon to turn the scale. He was not one of those who were in doubt as to life being worth living; he would gladly live his life over again, and he had found that his worst experiences had always taught him something. Dr. Ireland concluded by saying that words were incompetent on such an occasion, and he could only thank his friends for their encouragement and generous appreciation.

Dr. YELLOWLEES moved a vote of thanks to the Committee, and especially to Dr. John Thomson, and Dr. THOMSON suitably replied.

Dr. UNDERHILL proposed a vote of thanks to the Chairman, and the meeting dispersed.

OBITUARY.

DR. PAUL GARNIER.

We deeply regret to record the death of Dr. Garnier, who was one of the best known to us among the psychiatrists of France. Dr. Garnier's rapid and unerring methods, at the Special Infirmary of the Prefecture of Police in Paris, were little short of marvellous to our northern experience. His official position brought him into contact with vast numbers of all kinds of mental disorders, and he formulated the results of his observations in an important work—*La Folie à Paris*, published in 1890. His reception-room at the Infirmary was most instructive for those studying Parisian methods, and the cases could be followed out in Dr. Magnan's wards, or in the other asylums to which they were more rarely sent. We trust that his successor will be found as capable of dealing with the work, which is most onerous and responsible.

Dr. Garnier has died at the age of sixty, cut off most suddenly, having just finished his report on the case of the Princess Louise of Saxony.

NOTICES BY THE REGISTRAR.

At the examination for the Certificate in Psychological Medicine, held in July, 1904, Herbert Jennings Gibbs, M.R.C.S., L.R.C.P., Assistant Medical Officer, Lunatic Asylum, Singapore, was successful.

NURSING EXAMINATION.

The Registrar reports that over 800 candidates have entered for the next examination. The Association is to be congratulated on the great success of this branch of its activity.

NOTICES OF MEETINGS.

General Meeting.—The next meeting will be held at the rooms of the Association in London on May 18th, 1905.

South-Eastern Division.—The Spring Meeting will be held, by the courtesy of Dr. D. G. Thomson, at the Norfolk County Asylum, on April 27th, 1905.

Northern and Midland Division.—The Spring Meeting will be held, by the courtesy of Dr. Bedford Pierce, at The Retreat, York, on May 4th, 1905.

Irish Division.—The Spring Meeting will be held, by the courtesy of Dr. Rainsford, at Palmerston House, Chapelizod, co. Dublin, on May 9th, 1905.

 APPOINTMENTS.

Fennell, Charles H., M.A., M.D.Oxon., M.R.C.P.Lond., Senior Assistant Medical Officer to the East Sussex County Asylum, Hellingly.

Garden, W. Sim, M.B., Ch.B., Second Assistant Medical Officer of the County Asylum, Chester.

Geddes, John W., M.B., C.M.Edin., Medical Superintendent of the Middlesborough County Borough Asylum.

Grills, G. Hamilton, B.Ch., M.D., Senior Assistant Medical Officer of the County Asylum, Chester.

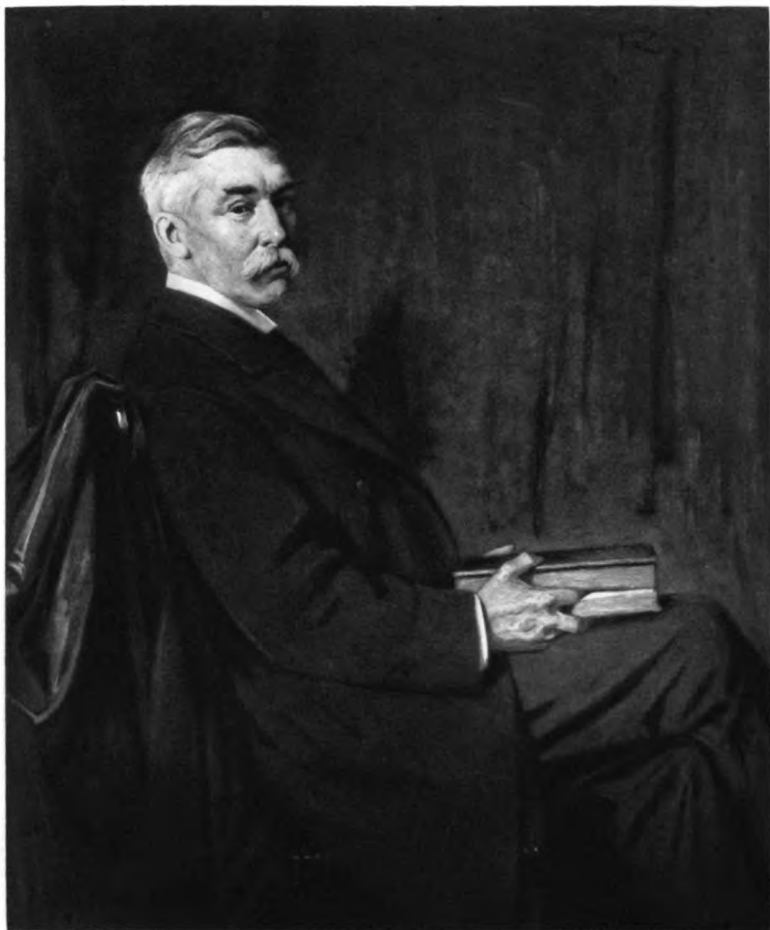
Hunter, Jessie S. B., M.B., Ch.B.Glas., Assistant Medical Officer to the Bracebridge Lunatic Asylum, Lincoln.

Mills, J. A., B.A., M.B., B.Ch., B.A.O., Assistant Medical Officer and Pathologist to the Durham County Asylum.

Pope, G. Stevens, L.R.C.P., etc., Medical Superintendent to the Somerset and Bath County Asylum, Wells, Somerset.

Tylecote, Frank E., M.D., Assistant Medical Officer, Lancashire County Asylum, Winwick.

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SIR JOHN SIBBALD. M.D., F.R.C.P., EDIN.

Ob. April 20. 1805.



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VOL. LI.

Part I.—Original Articles.

Morison Lectures.—*Lecture V.*⁽¹⁾ By JOHN MACPHERSON
M.D., F.R.C.P.E.

The Distribution of Insanity.

IN the second lecture I discussed the distribution of the neuroses throughout the various races of mankind, but the subject was necessarily curtailed for want of time and space. It would not, I believe, be a difficult task to prove that no race of man is free from very extensive affection by epilepsy or hysteria or many other nervous affections regarding which we have but an imperfect account. When we come to inquire into the similar prevalence of insanity, however, the evidence is much more negative, and although there is no race of men who are known to be free from it, yet on the whole travellers are in too many instances silent. In many instances it is evident that the subject does not interest them, while in still other instances they simply say that they saw no insane people. Hence has arisen the mistaken idea that insanity is a product of civilisation and that it is rare or unknown among savage or barbarous people. I have taken the trouble to collect numerous references from the writings of travellers on this subject, and I shall read a few of them for the purpose of showing the unfounded nature of the belief which has arisen on this question. Dr. Felkin informs me that he has seen in all some thirty to forty lunatics

on the White Nile. He also saw some maniacs chained. He was the first to tell me a curious fact, of which I have since had confirmation from other sources, *viz.*, that the type of insanity among the African natives is different from that in Europe. The prevailing form of mania is a short acute kind, lasting only a day or two, during which the sufferer is driven away to the woods or voluntarily runs away, returning again in a few days apparently restored in mind. Idiocy was very common in his experience and so was suicide. Thompson, in his book *Through Massailand*, states that he found insanity very common. The myths and folk stories of the people are full of reference to it. Those affected by lunacy are driven away from the habitation of sane people or are otherwise isolated. He also found idiocy very common, especially among the dwarfs and albinos, the latter of whom were numerous, and about the prevalence of mental defect among them there was no doubt. In a book entitled *The Indian Tribes of the United States*, edited by Francis S. Drake, reference is made to an Oregon Indian woman who appeared to be demented: "She sang in a wild manner, and would offer to the spectators all the little articles she possessed, scarifying herself in a horrid manner if anyone refused to accept her presents. She seemed to be an object of pity to the Indians, who allowed her to do as she pleased."⁽²⁾ Captain Cook, in his *Voyages*, referring to the South Sea Islanders, says: "We met with two instances of persons of disordered mind, the one a man at Owyhee and the other a woman at Oneheeow. It appeared from the particular attention and respect paid to them that the opinion of their being inspired by the Divinity, which obtains among most of the nations of the East, is also received here" (in the Pacific).⁽³⁾

Ellis, in *Polynesian Researches*, says: "Insanity prevailed to a slight degree, but individuals under its influence met with a very different kind of treatment. They were supposed to be inspired or possessed by some god whom the natives imagined had entered every one suffering under mental aberration. On this account no control was exercised, but they were treated with the highest respect. They were, however, avoided," etc.

A distinguished writer and a graduate in medicine of this university told me that when he was in the South Sea Islands he bore a commission from a friend and former teacher to procure, if he could, a specimen of a Polynesian skull. He

experienced much difficulty in the quest. At last he met a lonely man whom every one seemed to avoid and engaged his services for a small consideration. The man was true to his promise, and at the appointed time procured a suspiciously fresh-looking skull, refusing all information as to where he had obtained it. My informant was not a little uneasy over the transaction, but he was afterwards assured by a competent authority that the procurer of the skull was a lunatic whose actions, however outrageous, none of his fellow-islanders would dare to question. Emin Pasha, in his book *Central Africa*, says: "Insanity, and also temporary mental aberration, are frequent. The latter is treated with herbal remedies, which effect an immediate cure by means of sleep and sweating"⁽⁴⁾. Wilson and Falkin (*Uganda and Egyptian Soudan*) state "temporary madness is pretty common and generally lasts for three or four days, but persons thus afflicted do not become very violent." I might go on indefinitely multiplying extracts from the writings of travellers to the same effect, but it would serve no additional purpose. When speaking of epilepsy and of hysteria in a previous lecture I pointed out that no nation or race in the world was free from these affections, and that if there was any difference between races it was in the extent to which they were invaded by these diseases. If such diseases as hysteria cannot exist independently of the neuropathic constitution, and if insanity is equally dependent upon that constitution, then it is the constitution itself, and not any particular manifestation of it, which we ought to endeavour to trace. To my mind it seems conclusive that if a race is largely affected by hysteria the individuals composing it must have a corresponding share of the neuropathic constitution in their heredity. I also believe that the lower animals are equally subject to pathological mental aberrations. One cannot read such articles as those written by the late Dr. Lauder Lindsay, of Perth, in the *Journal of Mental Science*,⁽⁵⁾ or Pierquin's remarkable book,⁽⁶⁾ without being convinced, not only of the great variation of mental manifestations by animals of the same species, but also of the existence of pathological mental conditions among them. Further, a perusal of the mental condition induced in animals by removal of the parathyroid glands, as performed in the experiments of Herzen and Schiff, reveals the possibility of acute insanity in several species

of animals. (⁷) But the important reason why statistics differ as between savage and civilised peoples is that the type of the race, the cerebral organisation, and consequently the mode of reacting to the environment, are all different. No doubt the same forms of mental disease are to be found among savages as among ordinary civilised Europeans, with certain exceptions. A little consideration will show that insanity of such types must be more or less concealed by the want of culture and education among savages. For example, what can it matter to a savage tribe though one of its members should be the subject of hallucinations? Of what great interest would it be that he should profess to be possessed by the devil or bewitched? I might go a step farther and ask what would have been the result in Scotland 300 years ago if an individual were to express delusions of persecution referred to unseen or occult agencies? Such a person would undoubtedly run the risk of being accused of communing with the devil and might be burnt alive. At the least he would be liable to the gentle persuasion of the thumb-screws and the boot. It is well known that in the days of Louis Philippe, no later than the early part of last century, when the power of the Church was supreme in France, it was considered prudent to conceal certain obscure or unusual symptoms lest a charge of witchcraft should be based upon them. What medical significance could the symptoms of melancholia have in a non-ethical and non-scientific society? In a previous lecture I pointed out that so far from the neuro-pathic constitution being considered pathological among barbarous people its manifestations are regarded as valuable qualities and are regularly put to a marketable use. The subjects of epilepsy and hysteria supply the ranks of the sooth-sayers, the magicians, the workers of miracles, and the priests. The contention, therefore, that neuropathy, which is the basis of the neuroses and of insanity, is less common among savage and barbarous people is wholly unfounded. There is, however, another reason why this belief in the immunity of the less civilised from insanity has obtained currency, and it is because no qualified person has ever been at the trouble to investigate the matter. About a year ago Professor Kraepelin, of Munich, went to Java and analysed the forms of insanity among the natives in one of the large asylums there. (⁸) His results, though not yet fully published, are highly significant in their bearing

on this question. His first inquiry was whether the influence of climate and other tropical conditions of life modified in any way the symptoms of mental disease. He found, however, that Europeans born and reared in Java present exactly the same clinical types of mental diseases as at home. As to the abuse of stimulants and narcotics, the natives do not drink alcohol, and there were therefore no cases of alcoholic insanity among the native population of the asylum. Opium-smoking and abuse of the drug is, however, common, yet no patient in the asylum owed insanity to that cause. The same is true of the large asylum at Singapore, in which city the Chinese population is notoriously given to the abuse of the drug. Of especial interest also is the fact that out of 370 insane natives there was not a single case of general paralysis, whilst among fifty European men who were inmates of the asylum at the same time there were eight cases. There is no satisfactory explanation of that fact on the basis of the ordinarily accepted theory of the causation of the disease, for the native of Java is not less the victim of syphilis than other similarly circumstanced people. For an explanation we must fall back upon such imperfectly understood questions as racial differences and race types. Dementia præcox was found to be extremely frequent, and on the whole presented symptoms similar to those found among Europeans. On the other hand, mania-melancholia was rare. Many cases seemed to bear a resemblance to it, but they were found on closer observation to be distinct and peculiar forms of epileptic or hysterical mania. In those cases in which there was no doubt in diagnosis the symptoms presented several variations from the European type. Especially was this the case in the depressed form of the mania-melancholia syndrome, where many of the characteristic symptoms were wholly absent. For instance, ideas of "sinning" were never expressed, and maniacal agitation was less developed and more monotonous than is usual in Western Europe. The great difficulty experienced in forming a satisfactory diagnosis of mental affections in Java was the preponderating amount of "amok" and "latah" among the patients. The symptoms of these semi-hysterical diseases not only formed special clinical groups, but they appeared also to colour the character of other and distinct forms of insanity. As I mentioned in a previous lecture, latah is the great mental affection of the Malays, just

as hysteria is the corresponding disease *par excellence* of the Samoyeds and Kamtschatkans and other nations of North-Eastern Europe and Northern Asia. Short, quickly passing, hystero-maniacal attacks similar to those which Emin Pasha and Felkin describe among the natives of the Soudan, Kraepelin describes as frequent among the Malays. This leads to the conclusion that it is not so much a question of the frequency of insanity as of its type which ought to be the basis of inquiry when studying the manifestations of insanity among peoples widely separated in development, whether racial or social. We see, then, that statistical insanity in its fluctuations must depend upon the scientific standard of the people whose insanity is being considered, and upon their ethical attitude towards disease of all kinds. It cannot depend upon an absence of neuropathia or psychopathia, for the theory of variation forbids the possibility of the existence of a community in which the members are at a uniform level of physical or mental endowment. But the recognition of insanity as a disease by a community is very gradual, and older notions as to its supernatural origin linger for a long time even after the general acceptance of newer ideas. Consequently there is a tardiness in applying for public relief among the less educated portions of the community. Again, as the occurrence of insanity in a family is rightly or wrongly regarded as a social disability, a reproach or stigma, the sane members of the family make every effort to conceal it. For various reasons of a social nature, these barriers against publicity are gradually breaking down, and both the rich and the poor are less reluctant to acknowledge that they have insane relations. The Royal Commission appointed to inquire into the condition of the insane in Scotland found that the number of the insane of whom there was official cognisance in the year 1855 was 3328. It was not until the Commissioners had called for returns from the Chief Constables and Procurators Fiscal in each division of the country that they found from the completed returns that there were 7403 insane persons, or more than twice the original number. But it must not be presumed that the Commissioners succeeded in ascertaining all the insanity in the country, although they were able to show that it was 122 *per cent.* more than it was officially registered. When the general Board of Commissioners in Lunacy came into office in 1858

there were officially registered 5824 lunatics of all classes, or 1.92 per 1000 of the population.

On January 1st, 1901, there were 15,899 lunatics, or 3.59 per 1000 of the population, an increase of 173 *per cent.*; while the population had only increased 42 *per cent.* in these 43 years. In the Census of 1901 there was included for the first time a query with respect to the occurrence of "feeble-mindedness," in addition to the former query regarding lunatics. The result was to show that instead of 15,000 there were 20,291, or 4.54 per 1,000 of the population. Here, again, the official statistics were below the actual facts, but this time by only 28 *per cent.*

TABLE I.

Years.	Official figures.	Per 1000.	Figures specially ascertained.	Per 1000.	Per cent. difference.
1858	3328	1.15	7403	2.56	122
1901	15,899	3.59	20,291	4.54	28

We see that while in 1855 the official figures were 122 *per cent.* below the returns otherwise ascertained, in 1901 the figures were only 28 *per cent.* below the census returns. The obvious inference is that the official lunacy figures are year by year slowly approximating to the actual truth, so far as that is possible under the existing law. Such a theory would, of course, imply that, supposing the census returns of 1901 to be accurate (which is, I admit, an assumption), the return obtained by the Royal Commissioners from the Constabulary of Scotland should have contained 5515 more persons than it did; in other words, there were upwards of 12,900 mentally unsound and defective persons in Scotland in 1855. There are reasons for believing that the Census returns of 1901 are more accurate than the Constabulary returns of 1855. In any case, they approximate much more nearly to the official lunacy figures.

In 1830 it was estimated that in Italy there was 1 insane person to 3785 of the population; in 1890 there was 1 insane person to 1350. Would it not be monstrous to assert that

these figures proved a corresponding increase of insanity in Italy in 60 years? As a matter of fact both computations are very much below the actual truth.

There are many more reasons for believing that the variation of mental unsoundness is a fixed and constant one from year to year than for believing that insanity is increasing. For our ideas regarding what constitutes insanity of the cases that can benefit by care and treatment, as well as our whole ethical attitude towards disease, has altered greatly in the last forty-six years. There is, on the other hand, no evidence whatever that we have altered in our physical or mental constitution in that time, or that we expose ourselves more to influences which promote the occurrence of insanity. The people are more sober, better fed, better clad, and better housed; and although there is still much to be desired in those respects, yet the relative improvement in every aspect of the social organisation is steadily increasing. If the theory I present is taken exception to on the ground that it is largely founded on assumption, it may be retorted that the theory of the absolute increase of insanity is founded on assertion, with nothing whatever to support it.

I proceed next to deduce a few of the important lessons which may be gained from the statistics of insanity, and which will, I hope, help to throw some light upon the difficult question just referred to.

TABLE II.—*Age Distribution of the Population of Scotland, of Pauper Lunatics admitted to Asylums in 1897, and of all registered Pauper Lunatics in 1897.*

	Age periods.			
	0—20.	20—40.	40—60.	60 and over.
Population of Scotland	<i>Per cent.</i> 45·9*	<i>Per cent.</i> 29·4	<i>Per cent.</i> 16·7	<i>Per cent.</i> 7·8
Admissions to asylums	5·9	45·9	34·4	13·7
Resident in establishments and private dwellings	2·6	33·6	44·3	19·3

* Census 1891.

When we divide the population of Scotland into the age periods 0-20, 20-40, 40-60, 60 and over, we find that nearly one half of the people are below 20 years of age (45·9 *per cent.*)

But the proportion of pauper lunatics as shown in this table who are annually admitted to asylums under that age is only 5·9 *per cent.* of all the admissions. Consequently, the greater the number of the people of any community who are less than 20 years old the smaller will be the proportion of insanity in that community. By far the greater number of people, 45·9 *per cent.* of the whole, according to this table, become insane and are sent to asylums between the ages of 20 and 40 years, notwithstanding the fact that the population between those ages is considerably less than it is under 20 years—29·4 *per cent.* as against 45·9 *per cent.* From 60 years and upwards the population begins to decrease in number, as we see in the table, where only 7·8 *per cent.* of the people are above that age. But the percentage of occurring lunacy does not fall in the same proportion, for it is 13·7 *per cent.* of the whole. Therefore the liability of the aged to insanity is more than twice as great as that of the young. Now, the population of the various communities composing a country like Scotland varies in its age distribution considerably, especially with regard to the members who are below 20 and over 60 years. The age of the people between 20 and 60 does not vary so much. Consequently the number of persons living over 60 years considerably influences the proportionate amount of insanity, for the more numerous they are the more insane will they contribute towards the total. Let us look at the same question from another point of view. I show in this table the number of pauper lunatics resident in Scottish asylums in the year 1897, distributed according to age :

The figures are necessarily different from those in the preceding line of the table, because the period of residence somewhat alters the age distribution. The population, of course, remains the same. If we take the ages from 0 to 20 years, we find that while 45·9 *per cent.* of the population are under the age of 20 only 2·6 *per cent.* of all the insane in asylums are under that age. In the period 20 to 40 the proportions are reversed, for while 29·4 *per cent.* of the population are between those ages there are 33·6 *per cent.* of the insane. Coming to the

age period 40-60, we see that while the percentage of the population living at that age is only 16·7, the number of the insane (44·3 *per cent.* of the whole) is the largest of any age period. Finally, while only 7·8 *per cent.* of the population is over 60 years of age, 19·3 *per cent.* of the insane are over that age. In respect of the age distribution of insanity therefore we see that both tables are agreed in showing that from a statistical point of view the insanity of youth is a negligible quantity, that from 20 to 60 years of age the number of the insane living increases steadily year by year, and that over 60 the liability to become insane is greater than under 40, and very much greater than under 30, and so on.

Before we can compare the proportion of insanity in one district with that in another we must know whether the age in the two communities is similarly distributed, for it is manifest that if one community has a larger number of people under 20 years of age than the other has the one with the lower number will be at a disadvantage in the comparison, also that the one with fewer persons living over 60 years of age will show less insanity in comparison with the other. Again, the liability of the two sexes to insanity varies appreciably in favour of the female sex. The relative proportion of the sexes in a community must therefore affect the proportion of the insane in that community. It is from

TABLE III.—*Table of Age Distribution of the Population in different Parts of the Country.*

	Age periods.			
	0-20.	20-40.	40-60.	over.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
Scotland	43·6*	31·3	17·2	7·6
Rural districts	44·7	28·7	17·2	9·6
Large town districts	42·9	33·5	17·1	6·1
County of Dumbarton	44·9	32·4	16·2	6·1
County of Argyll	39·8	28·3	19·9	11·7

* Census 1901.

all that has been said necessary to correct our lunacy statistics in exactly the same way as statisticians correct the mortality rates of communities for purposes of comparison. With the details of the process, which is laborious, I need not trouble you, but the foregoing table which I throw on the screen will show the necessity for such a correction :

The county of Dumbarton has a lower rate of insanity than the Scottish average. The county of Argyll has, as a whole, one of the highest lunacy rates among the Scottish counties. It will be seen from the table that the age distribution of its population is as unfavourable as possible when compared with Dumbarton, for an apparently high lunacy rate. In the first place, its population under 20 years is 5·1 *per cent.* below that of the more favoured county in this respect. In the second place the percentage of people between 40 and 60 is higher by 3·7 *per cent.*, and, as has been pointed out, 44 *per cent.* of the insane are between those ages. In the third place, the number of persons living over 60 is 5·6 *per cent.* higher, and at that age about 20 *per cent.* of the insane are found.

Having shown the necessity which exists for a revision of the recorded lunacy rates by means of correction for age and sex distribution, after which only is comparison between different districts possible, I proceed to show the results of such a correction upon the recorded lunacy rates of the Scottish counties.

The first column, "standard rate," is a calculated one and indicates what the proportion of lunacy in each county would be if the age and sex distribution of its population were the same as that of Scotland as a whole. Thus the county of Kincardine has a population exactly similar to that of Scotland, and the counties of Aberdeen, Fife, and Clackmannan also closely resemble the Scottish mean in this respect. On the other hand, the county of Sutherland presents the most abnormal composition of population of any of the counties, although it is closely resembled by the whole group of Northern and North-Western counties. The second column shows the factor of correction which it is necessary to apply to the "recorded rate" which is given in the third column. The last column is the "corrected rate." The correction, it will be seen, has had the effect of raising the recorded rate in eight counties and of lowering it in the remaining twenty-four. The county of Kincardine, having a

sex and age distribution similar to that of Scotland, is not affected. The map of Scotland now shown gives at a glance

TABLE IV.—*Recorded and Corrected Lunacy Rates per 1000 Persons living in Thirty-three Counties in Scotland at March 31st, 1901.*

Counties.	Standard lunacy rate at March 31st, 1901.	Factor for correction for sex and age distribution.	Recorded lunacy rate at March 31st, 1901.	Corrected lunacy rate at March 31st, 1901.
SCOTLAND	4'54	1'0000	4'54	4'54
1. Selkirk	4'90	'9265	3'04	2'82
2. Linlithgow	4'03	1'1266	2'62	2'95
3. Dumbarton	4'32	1'0509	2'94	3'09
4. Clackmannan	4'52	1'0044	3'31	3'32
5. Peebles	4'95	'9172	3'72	3'41
6. Kinross	5'04	'9008	3'87	3'49
7. Renfrew	4'38	1'0365	3'54	3'67
8. Kincardine	4'54	1'0000	3'84	3'84
9. Lanark	4'26	1'0657	3'67	3'91
10. Ayr	4'33	1'0485	3'77	3'95
11. Wigtown	4'80	'9458	4'25	4'02
12. Fife	4'59	'9891	4'09	4'05
13. Edinburgh	4'65	'9763	4'44	4'33
14. Kircudbright	4'90	'9265	4'75	4'40
15. Berwick	5'03	'9026	5'03	4'54
16. Stirling	4'28	1'0607	4'68	4'96
17. Dumfries	4'91	'9246	5'48	5'07
18. Roxburgh	4'99	'9098	5'59	5'09
19. Forfar	4'72	'9619	5'32	5'12
20. Banff	4'60	'9870	5'35	5'28
21. Bute	5'21	'8714	6'12	5'33
22. Shetland	5'53	'8210	6'57	5'39
23. Aberdeen	4'53	1'0022	5'41	5'42
24. Orkney	5'48	'8285	6'69	5'54
25. Perth	5'04	'9008	6'16	5'55
26. Elgin	4'79	'9478	5'96	5'65
27. Haddington	4'69	'9680	6'00	5'81
28. Sutherland	5'54	'8195	7'42	6'08
29. Inverness	5'09	'8919	6'94	6'19
30. Caithness	5'12	'8867	7'03	6'23
31. Ross and Cromarty	5'16	'8798	7'52	6'62
32. Nairn	5'00	'9080	7'32	6'65
33. Argyll	5'14	'8832	8'20	7'24

the relative positions of the counties to one another in respect of the prevalence of lunacy. This table is, however, fallacious in so far as it indicates that the whole divisions of a county are equally encumbered with lunacy. This is far from being

the case. If insanity is a variation, it would not be in accordance with what we know of variation to find it parcelled out in equal proportions in each geographical division of the population. If the population were stationary in regard to births, deaths, marriages, emigration, and migration, then, and then only, would a variation be constant. The county division is too large to help us to understand the local conditions which influence the fluctuations of statistical insanity within it. Unfortunately, the census figures do not condescend to smaller divisions than the county, and it is therefore necessary to fall back upon the less perfect indications to be obtained from the pauper lunacy returns.

In the county of Argyll, for example, there are many parishes with a low lunacy rate; and it is because there are certain parishes which have a persistently high rate that the county as a whole occupies the position of having a larger lunacy proportion than the other Scottish counties. It is necessary to inquire a little more closely into this point. I begin by showing the following table, which reveals the difference between the amount of pauper lunacy in three large urban centres which are constantly increasing their populations by immigration from the country districts and three counties in which the pauper lunacy rate is high and whose populations are year by year decreasing owing to emigration to urban districts and to colonies over the seas.

TABLE V.

	Population.	Number of Pauper Lunatics.	Per 1000.		
			Standard rate.	Recorded rate.	Corrected rate.
Argyll Caithness Inverness	197,616	1112	3·37	5·62	4·86
Aberdeen Dundee Edinburgh	631,513	2076	3·12	3·28	3·06

While the population of the three cities is more than three times greater than that of the three counties their pauper

lunatics are only twice as numerous as those of the counties. Even when allowance is made for the difference in age and sex distribution, the proportion in the counties named is higher by 1·8 per 1000 than in the three cities. We must look for some explanation of this within the counties themselves. On examining the relative proportion of pauper lunacy in the various parishes forming a county we find considerable differences, which are not casual or temporary, but which have persisted with more or less constancy during the comparatively few years in which it is safe to trust to statistics—for it must be remembered how recent statistics dealing with insanity really are. I shall deal with the three counties of Argyll, Caithness, and Inverness, which have figured in the preceding table. In the county of Argyll there are twenty-four parishes in which the pauper lunacy rate is above the average of the county and fifteen parishes in which it is below the average. In one or two parishes it is, of course, the same as the average, but in the majority of the fifteen it is below the average of the county and approximates to that of Scotland. I show the following table, which sets forth the relative proportion of pauper lunacy in these two groups of parishes.

TABLE VI.—*Showing Distribution of Pauper Lunacy in the County of Argyll.*

	Popula- tion, 1871.	Popula- tion, 1901.	Increase or decrease.	Pauper lunatics per 1000.		
				Standard rate.	Recorded rate.	Corrected rate.
GROUP A. 24 Parishes . . .	39,568	30,274	- 9294	3·69	9·05	7·14
GROUP B. 15 Parishes . . .	35,853	43,368	+ 7515	3·22	3·68	3·33

The parishes in Group A are non-industrial and more purely crofting than those in Group B. In the larger portion of Islay, for example, which is industrial—the chief industry being the manufacture of whisky—in the Cantyre peninsula, where new methods of agriculture have largely been introduced, and in the

eastern mainland parishes which border on the estuary of the Clyde, a new population has arisen and the proportion of pauper lunacy is comparatively small, while in the remoter parishes and the isles we find a dwindling and a stagnant population with a high lunacy rate.

I select another group of parishes, within the county of Caithness.

TABLE VII.—*Showing Distribution of Pauper Lunacy in the County of Caithness.*

	Popula- tion, 1871.	Popula- tion, 1901.	Decrease.	Pauper lunacy per 1000.		
				Standard rate.	Recorded rate.	Corrected rate.
GROUP A. 3 Parishes	11,441	8389	3052	3.59	8.34	6.78
GROUP B. 5 Parishes	9494	7825	1669	3.34	3.88	3.39

It is manifest that the difference in the decrease of population in the two groups, though considerable (9 *per cent.*), is not sufficient to account for the fact that Group A has a pauper lunacy rate exactly double that of Group B.

The three parishes forming Group A are crofting and fishing districts, and any drain on their population cannot be replaced, for crofting and fishing are industries which are hereditary and not acquired. Therefore when the people leave their place is not supplied by a fresh population, as occurs in an industrial district. The five parishes designated Group B are also agricultural parishes, but the holdings are large and neither crofting nor fishing prevails as an industry to anything like the same extent as in Group A. Loss of population does not, therefore, affect them in the same way, for where there are large farms there is a constant migration of new individuals, and consequently an infusion of new blood.

I come now to the third county, namely, the county of Inverness. I select the Western Isles of that county, where another and important aspect of the problem presents itself.

TABLE VIII.—*Showing Distribution of Pauper Lunacy in the Western Isles of Inverness-shire.*

	Popula- tion, 1871.	Popula- tion, 1901.	Increase or decrease.	Pauper lunacy per 1000.		
				Standard rate.	Recorded rate.	Corrected rate.
SKYE. 7 Parishes	18,151	14,619	- 3532	3'48	7'79	6'52
OUTER HEBRIDES. 5 Parishes	15,973	17,818	+ 1845	3'00	3'00	2'91

The insanity of Skye, according to this table, is more than twice as great in proportion as that in the Outer Isles of the county. The social and industrial conditions of the people in the two groups are exactly the same. They are chiefly crofters and fishermen. The only apparent distinction between the two groups is that the population of the Outer Isles has been increasing naturally by excess of births over deaths, while the population of Skye has decreased steadily, notwithstanding its natural increase, for thirty years.

It is now seen beyond dispute that a population which is decreasing is at a disadvantage with respect to the proportion of statistical lunacy, and that an increase of population is necessary in order to regulate the production of this variation. It matters not how the increase is attained. It may be by natural increase, as in the case of the population of the Outer Hebrides of Inverness, or by immigration, as in the large cities. But there may be a low lunacy rate accompanying a decreasing population, as we have seen in Group B of the County of Caithness. The same is apparent in the statistics of the County of Wigtown, which has a remarkably low lunacy rate and a falling population. But in Wigtownshire and Group B of Caithness-shire the social conditions are different; the populations of these groups are largely composed of farm servants and employees of a more or less migratory disposition, while in the more purely fishing and crofting districts the population is stagnant, and the elements removed are not replaced by sexually efficient, young, healthy adults. Like every other variation, insanity can only be held in check—swamped out,

to use a common expression—by extensive inter-crossing. New blood can only be obtained if there are units to introduce a new strain.

There are, then, two reasons why a decreasing population favours a high lunacy rate: (1) Because the normal age distribution of the population is greatly modified. (2) Because there is not a sufficient introduction of new blood to check the increase of the variation. In order to illustrate the first point I have grouped the populations of the parishes we have just been discussing in the counties of Argyll, Caithness, and Inverness together under various age periods. The parishes with a high lunacy rate come first, and next in the table are the parishes with the low pauper lunacy rates.

TABLE IX.—*Showing Age Distribution in Special Groups of Parishes.*

High lunacy rate.	0-20.	20-30.	30-40.	40-50.	50-60.	60-70.	70 and over.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
Argyll (Group A)	36·1	14·4	13·3	11·8	9·6	7·5	6·4
Caithness (Group A)	40·1	12·0	10·7	10·0	8·9	8·7	9·2
Skye	41·9	11·7	10·9	10·1	9·7	8·3	7·0
	39·7	12·7	11·6	10·6	9·4	8·2	7·5
<hr/>							
Low lunacy rate.							
Argyll (Group B)	42·4	16·2	12·5	10·7	8·1	6·0	4·1
Caithness (Group B)	42·7	13·1	9·8	10·7	8·2	8·1	7·0
Inverness, Outer Isles	43·0	13·5	12·3	10·2	8·3	6·7	5·1
	42·7	14·3	11·5	10·5	8·2	6·9	5·4

It will be seen that while the percentage of persons between 30 and 50 is practically the same in the two groups, there are marked differences in the age groups between 0 and 30 and between 50 to 70 and over. Now, as has been already pointed out, these age periods exercise a considerable influence in lunacy statistics; for the number of the insane under twenty

is immaterial, while the number living over fifty considerably modifies the statistics. It is necessary to point out that in dealing solely with the statistics of pauper lunacy an element of fallacy has to be reckoned with, *viz.*, the difference in administration due to the individuality of the various officers who administer the Poor Law as well as the difference in custom in the various divisions of the country. The fact has also to be borne in mind that when a community is being drained by emigration the weak, the insane, and the diseased are, as a rule, left behind, so that the proportion of these to the general number increases by mechanical ratio. Exactly the reverse process is seen in the large urban centres, which are being constantly reinforced by the addition of young adults. I have sufficiently directed attention to the great importance of the age distribution of a population in respect to lunacy statistics. There remains the question of the isolation of a community, especially as regards its marriage isolation.

I can use no figures in support of the hypothesis that in order to regulate the proportion of any form of variation, especially a deleterious one, a community must not be too limited in its material for sexual selection. In insanity there is probably more than one form of variation. There is, for instance, mental defect which is largely a teratological variation. There is the variation which constitutes the basis of the confusional insanities, which is, no doubt, a nervous variation in the structure of the brain and the cortical cells, but is also largely a physical variation involving the immunity of the body tissues against infection and of the structure and function of certain body-glands. Finally, there is the variation known as the recurrent insanities, and the neuroses, of which we are in a state of ignorance at present. All these variations are hereditary in exactly the way as phthisis or gout, polydactylism or albinism, are hereditary. But we may disregard these distinctions in the forms of variations of insanity owing to the unexplained fact that the neuroses and insanity are transmutable in their heredity. That is to say that the children of an insane parent may be alcoholic or *vice versa*, while the children of an epileptic may be insane or *vice versa*. The variation which constitutes insanity is the most widely spread of all pathological variations, except the phthisical constitution with which it is in some mysterious way allied. There is no community so far

as we know that is free from the taint of insanity, although, as we have seen, some communities are more favourably placed and constituted than others, and consequently show less statistical evidence of its presence. There are circumstances which favour the absolute, as distinguished from the apparent, growth of insanity in a community, just as there are circumstances which favour the spread of epilepsy or hysteria or chorea among groups of men or animals. I shall illustrate what I mean by the following three examples: Martin (⁹) records the following illustration: "The inhabitants of a village of Eycaux had married among themselves from a remote period, and they almost all (men and women) presented a sixth digit on their hands and feet. Gradually they began to extend their matrimonial alliances to a neighbouring village, with the result that the deformity entirely disappeared." I myself know of a fishing community in Scotland, the name of which I prefer not to mention publicly, where Huntington's chorea became so prevalent that from one fifth to one seventh of the inhabitants were variously computed to suffer from it. Fishing communities in Scotland are notoriously conservative in their matrimonial affinities and seldom intermarry with the surrounding population. There are, of course, good reasons for this, principally, that a fisherman must marry a woman who knows his work, who can bait his lines, and sell his fish. With the increased enterprise which has in recent years characterised the Scottish fishing industry, and with better boats at their disposal, the men of the community I am referring to began to go farther afield in their expeditions and to intermarry with women in other fishing communities situated all round the coast from Eyemouth to Stornoway. As a consequence chorea is rapidly disappearing, and will in a few years probably vanish entirely. In the last Report of the Glamorgan County Asylum Dr. Pringle, the medical Superintendent, says: "Glamorgan owes much of its mental healthiness to the fact of its exceedingly mixed population, one third consisting of aliens—that is, of people not born within its borders. . . . In this county, until it was opened up by the railway, the Vale of Glamorgan was its blackest spot as regards insanity, and its inhabitants were nearly all related, and constantly marrying amongst each other." A similar proof of what I have been saying might be drawn from some of the Royal families of Europe, especially

those of France and Spain, where the introduction of the insanity can be traced and the impossibility of eradicating it, owing to the necessarily limited marriage selection, clearly shown. Time does not permit me to dwell upon this illustration, but I refer you to Ireland's⁽¹⁰⁾ and Auguste Brachet's⁽¹¹⁾ studies on the subject. In a small and isolated community one or two neurotic families containing a large number of sons or daughters who are sexually attractive, fertile, and prepotent are sufficient to propagate interminably the manifestations of an insanity or a neurosis. Once it is started, nothing but the introduction of new blood can check its spread. There are two safeguards against the probability of a new strain introducing new or similar pathological conditions such as the neuroses or insanity. The first is that the more extensive field of sexual selection almost invariably results in so blending the old population with the new that unfavourable variations have not the same opportunity of appearing. The second is that, according to the law of chances, the new population is not likely to be tainted in the same way as the old. Take, for example, the average amount of insanity in Scotland. We have seen that it amounts to 4.5 per 1000 of the inhabitants according to the latest census return. The chances against a randomly selected individual being insane are therefore more than 200 to 1. But supposing the psychopathic constitution is twice as frequent as is insanity, even then the odds against a randomly selected person being psychopathic are very large—no less than 100 to 1.

What I have said is to my mind sufficiently explanatory of the fluctuations of insanity within a large community such as Scotland. Farther than this it is obviously impossible to go, for we do not know the causes of variation, and if we did, we would be unable to explain the origin of different variations.

This concludes what I have got to say upon insanity as a variation. I have shown (1) that insanity is widely spread among the races of mankind, and that there is probably no community free from it. (2) I have suggested that in this country it is a more or less constant variation in relation to the population as a whole, and that it has always been so. (3) I have tried to show that the causes which influence its fluctuations in a community are similar to those which affect the fluctuations of every other genetic variation, *viz.*, isolation of a community and, for any reason, a too limited sexual selection, and in a

population that is being depleted the fact that the weaker and unfit are left behind.

(¹) Delivered before the Royal College of Physicians, Edinburgh, February 1st, 1905.—(²) Vol. I, p. 205.—(³) *Cook's Voyages*, vol. iii, p. 131.—(⁴) *Central Africa*, p. 94.—(⁵) *Journal of Mental Science*, vols. xii, xvii, and xxiii.—(⁶) *De la folie des Animaux Paris*, 1839.—(⁷) *Jeandelise l'Insuffisance Thyroïdienne*, Paris, 1903.—(⁸) *Centralb. für Nervenheilk. und Psychiat.*, July, 1904.—(⁹) Quoted by Delage, *L'Hérédité*, p. 214.—(¹⁰) Ireland, *The Blot on the Brain*.—(¹¹) Brachet, *Path. Ment. des Rois de France*.

Morison Lectures.—Lecture VI.(¹) By JOHN MACPHERSON, M.D., F.R.C.P.E.

The Causes and Treatment of Insanity.

I NOW come to the important, and I am sorry to say the controversial, question of the causes of insanity. After what I have already said on the etiology of the clinical forms of insanity and on the fluctuations of statistical insanity in communities, it seems to me that I might conveniently dismiss this subject by adopting the laconic style of the student who was assigned the task of writing an essay on "Snakes in Ireland" by saying in three words, as he did, "There are none." But as the great majority of people still believe in the validity of the numerous causes which are popularly believed to create insanity somewhat in the same way as violent exercise causes fatigue or eating salt fish causes thirst, it is necessary to refer briefly to the subject.

When we apply the word "cause" to insanity we must mean one of two things, namely, either the whole hereditary and pathological processes which culminate in insanity, or the agencies which precipitate individual attacks of insanity in a psychopathic subject.

(1) *The causes which are supposed to produce insanity de novo.*—The fact that an individual may live free from any suspicion of mental unsoundness for the first two decades of life has undoubtedly tended to obscure our notions regarding the causation of mental disease, and has led us to seek for external explanations, where a little consideration would enable us to perceive that in this respect insanity does not differ from other constitu-

tional diseases, such as cancer, phthisis, or gout. If a disease is transmissible from ascendants to descendants, its appearance must follow the course of the development of the individual, otherwise we should meet with cancer and angina pectoris in childhood, while rickets and the disorders of dentition should be equally common in the later as in the earlier decade of life. Insanity not being one disease, as we have seen, but a heterogeneous group of many diseases, we cannot speak correctly of its "cause" any more than we can intelligibly speak of a cause of the diseases of children or a cause of tropical diseases. It is worse than useless, therefore, to publish tables of the causation of insanity which make no reference to the special affection which the cause is supposed to produce. I say "supposed" because causation can at best be only a matter of opinion. What do we mean when we ordinarily use the word "cause"? We must mean one of two things—either that because two phenomena occur regularly in a certain sequence they therefore stand to each other in the relation of cause and effect, or that because two phenomena occur in association the one necessitates the appearance of the other. The fallacies of the first proposition are that, if it were universally true, we should be compelled to the conclusion that, because day and night regularly succeed one another, the one is the cause of the other. Obviously day and night stand in no such relation to one another, but the same fact is not always so clear in the case of many other natural processes with which we are less perfectly conversant. Again, it is not possible to isolate any single phenomenon in the sequence of events and call it a "cause," for one thing depends upon another in infinite regression back into eternity. The possible fallacies in the second case are numerous. Among the simultaneously occurring phenomena we select one in which we are most interested and call it the "effect," and then we look for the "cause" among the other simultaneously occurring phenomena. Such a quest is natural and in accordance with the constitution of the human mind. Yet, though the process is the source of all human knowledge, it is no less the source of all error. If the human mind were perfectly co-adapted to natural phenomena, there would be no danger of mistake, for knowledge would be perfect and speculation unnecessary. But as we are mentally constituted we almost invariably fall into error through selecting, not the true

cause, but the one which we would rather believe to be the true cause. It is a well-known fact that when a person is hypnotised and told to do a certain action, say an hour afterwards, he will perform the action without the least recollection that has been suggested to him ; but when he is asked why he did it he will furnish a number of plausible reasons, just as if he had spontaneously performed the act for sufficient conscious reasons. That is, I think, one of the most wonderful and suggestive facts in hypnotism. It explains our insatiable desire to find a cause for everything and it also explains why we are generally mistaken. In order to be able approximately to assign a cause to any effect it is first of all necessary thoroughly to know the nature of the effect itself. If we do not know what insanity is, how can we pretend to know what its causes are ? It was the profound ignorance of the disease which led to the theory of its supernatural origin, and it is only in proportion as our knowledge increases that we are able to formulate more rational ideas of its associated phenomena. But as our knowledge of the fundamental facts of insanity is as yet only fragmentary our opinions regarding its causation are still necessarily crude and imperfect. All we can honestly claim to assert is that certain symptoms have been preceded or accompanied by certain definite phenomena which have been ascertained to precede or accompany similar symptoms in a fixed and constant ratio. Take, for instance, the use of the word " cause " as applied to the numerically expressed relation of syphilis to general paralysis. In the first place, we do not know enough about general paralysis to assign it to any one cause ; and in the second place, syphilis cannot be the cause of general paralysis, for only an extremely minute fraction of the subjects of syphilis become general paralytics. Alcoholism was discussed in the third lecture, where it was, I think, successfully proved to be a neurosis closely allied in its symptomatology and heredity to the other neuroses and to insanity. That being so, its prominent place in a classification of insanity need be a matter of no surprise. Its combined homologous and dissimilar heredity is between 80 *per cent.* and 90 *per cent.* of the cases of alcoholic insanity. It may seem absurd to discuss the question of the etiology of alcoholism, for of course if there were no alcohol there could be no alcoholism. Yet even here, so complicated are the causes of mental

disorder, that it is necessary to point out that the true cause is a defective heredity which (1) induces the subject to crave for a particular mental state—not for alcohol, but for the state which alcohol most conveniently produces; (2) which provides the subject with a constitution which is particularly susceptible to the influence of such poisons as alcohol; and (3) which is in many cases the cause of a mental unsoundness independent of alcohol.

(2) *The causes which precipitate individual attacks of insanity.*

—If we restrict the term “causes of insanity” to those agencies which precipitate individual attacks in predisposed persons, we are on more limited and less important grounds. There are, no doubt, innumerable such agencies, but I question if a tabulation of them is so profitable or so beneficial as some people are apt to believe. Take, for example, the causes of an epileptic fit. In the same individual different agencies at different times determine the onset of a seizure. At one time it may be alcohol, at another time an error in diet, at another time a violent mental impression, while at other times the fit comes on without any assignable cause, merely as a manifestation of the morbid periodicity of the disease. Is it not a misuse of language to call these and similar agencies “causes” of epilepsy? It is the same with insanity. “When we are told (says Maudsley) that a man has become mentally deranged from sorrow, need, sickness, or any other adversity, we have not learned much if we are content to stay there; how is it that another man who undergoes an exactly similar adversity does not go mad?” The great question of the present day, and one which is constantly asked by the public, is, “What are the causes of the increase of insanity in the population?” The obvious reply is to ask in return whether there is any real increase of insanity. I have fully convinced myself (I do not know if I have succeeded in helping you to the same conclusion) that there is no increase of insanity. I am willing, however, for the sake of argument, to look at the question in another form and ask, Why is not the proportion of insanity less than it is? The causes generally assigned are those which produce physical deterioration of the members of a community. These are overcrowding, density of population, improper food, alcohol, and physical diseases. It might be pertinent before discussing this question to ask whether physical deterioration, in the sense in which the word is popularly

understood, really occurs at all. Very grave doubts have been expressed on the subject by competent authorities, and no proof of such deterioration has been brought forward. When it is seriously argued, however, that alcohol, improper food, and diseases of all kinds do not so much produce insanity in the *first* generation, but by their action on the sexual elements of the parents induce an unstable condition in the brains of the next generation⁽²⁾—in short, that these evil influences have caused variation in an unfavourable direction—all that can be answered is that such statements are founded on speculation, and should not, therefore, be put forward as working scientific hypotheses. I do not profess to know the causes of variation, but it is evident that the promoters of this theory have misunderstood the meaning of the term. The word, as scientifically understood, means divergence from a standard mean of any quality. It implies divergence to both sides of the mean, therefore it is both good and bad. For every man that is sixty inches in height there is another seventy inches high. On this hypothesis one is equally justified in asserting that alcohol causes genius as that it is a cause of genetic insanity. Even if we assumed that alcohol directly increased the amount of genetic insanity in a community, we would have to satisfy ourselves also as to whether the drinking habits of the people in that community were increasing or decreasing. If the historical accounts of the drinking habits in this country are not fallacious and garbled, there can be no doubt that the people are much more sober than they were 150 years ago and are steadily becoming more sober year by year.⁽³⁾

On the whole, while we may be ready to acquiesce in deploring the insanitary, diseased, and alcoholic condition of many portions of our urban population, the question in the light of statistics does not bear upon the increase of insanity in any way that I am able to make out. On the contrary, there is evidence which goes to show that, whatever the social and moral condition of a people, a strong and effectual effort is made by Nature to counteract these inimical surroundings.

I select the following striking remarks from the evidence given before the recent (1904) Commission on Physical Deterioration.

Dr. Eichholz said (566): "The number of children born healthy is, even in the worst districts, very great. The exact number has never been the subject of investigation, owing largely to

the certainty which exists upon the point in the minds of medical men; but it would seem to be not less than 90 *per cent.*" (646) "The percentage of badly born children among the poor is not sensibly greater than among the rich, and such diseases as are hereditary, such as insanity and neuroses, in which we include alcoholism and other inherited diseases of bad living, affect the one as much as the other." Professor Malins, of Birmingham, President of the Obstetrical Society of London, said (3124): "I think the testimony of experienced observers would be in accordance with the views expressed by Dr. Eichholz, though perhaps not to such a large extent. I should say that from 80 to 85 *per cent.* of children are born physically healthy."

If the poorest and most ill-nurtured women bring forth as hale and strong-looking babies as those in the very best conditions, the interpretation would seem to follow that Nature gives every generation a fresh start. It must also follow that environment has very little to do with the ante-natal condition. Children, it would seem, are not necessarily born degenerate, though born in the most sordid surroundings, and though born of parents who have acquired evil habits of life or unsound bodily health. All that the majority of these children require to make them average citizens is a chance in life—a chance to escape into better, healthier, and cleaner moral and social surroundings. I am confirmed in this statement by the marvellous results obtained in Glasgow by boarding out "slum" children in the houses of the peasantry throughout Scotland, regarding which we heard a good deal at the International Congress for Home Relief held in this city last June. We were informed on good authority that about 80 *per cent.* of these children turned out well in life, which is saying more than even an optimist would be inclined to say of ordinary children.

Our opinions on the prognosis of insanity must vary according to the view we take of the nature of the disease. To those who regard insanity as an accidental malady like measles or whooping cough, to which every one is subject and which can be prevented by nurture and careful hygienic precautions, there is, of course, an unlimited field for optimistic opinion as to its cure and prophylaxis. To those, on the other hand, who look upon it from the point of view of a genetic

variation the outlook is much less hopeful. Looking at the facts as they stand, there does not seem much hope of a speedy confutation of the latter view. Out of every 100 inmates of a modern asylum for the insane 20 are recent cases; that is to say, they have been less than a year in residence. They form the only material from which any hopeful results are to be obtained. It would be wrong to say that no patients recover after a year's illness, but their number is so small that—dealing as I am with large numbers, and not with the special experience of any one physician or any one institution—they are for practical purposes negligible. The following table shows the length of residence of 820 patients who recovered in the asylums of the Department of the Seine in the year 1897.

Duration of Treatment of the Patients who recovered in the Asylums of the Department of the Seine (1897).

Duration of residence.	Number recovered.	Percentages.	Mean.
One month and under	92	11'21	} 1 year, 91'35 Per cent.
From 1 to 1 months	115	14'02	
From 2 to 3 months	172	20'97	
From 3 to 4 months	113	13'78	
From 4 to 6 months	124	15'12	
From 6 to 9 months	74	9'02	} 2 years, 4'02
From 9 to 12 months	60	7'31	
From 1 to 2 years	33	4'02	} 2-5 years, 0'89
From 2 to 5 years	22	2'68	
5 years and over	15	1'82	
Total	820	—	

We see from these figures that 91 *per cent.* of the patients recover within a year, 4 *per cent.* between one and two years, and only 0·8 *per cent.* after two years. What of the after-history of those who recover? The answer has been very tersely given by Dr. Thurnam, who was the founder of modern lunacy statistics. He says: "Of 11 persons attacked by insanity 6 recover, and 5 die sooner or later during the attack. Of the 6 who recover not more than 2 remain well during the rest of their lives; the other 4 sustain subsequent attacks, during which 3 of them die." The matter has been

put similarly, but in different form, by Sir Arthur Mitchell (⁴), who recorded the condition, twelve years after, of 1297 patients admitted into Scottish asylums for the first time, and who had not previously been insane. Of these 851 recovered, 261 did not recover, 412 died, 499 were readmitted, and 273 remained. In other words, 36 *per cent.* died insane, 32 *per cent.* were then alive but insane; and 32 *per cent.* were either alive and sane or had died in a state of sanity. Making allowance for the future history of those who were then alive, the writer concludes that only 27 *per cent.* of the whole 1297 admissions were likely to die sane. This is far from encouraging as a basis on which to build any strong hope for the ultimate triumph of medical skill. For even if there were a basis of scientific treatment in existence, which there is not, it is evident that the inimical forces to be overcome are exceedingly powerful. Let us glance briefly at the question in the light of what I have already said on the nature and forms of insanity. To begin with, it is manifest that wherever there is an inherent mental defect of genetic origin we can do nothing by way of adding to Nature's endowment. At most we may train and educe the latent qualities that are already there. It is the same with the recurrent insanities and the neuroses. We can certainly conduce towards recovery from the individual attacks, but we can do little or nothing to check the tendency to recurrence. So with the neuroses. The epileptic fit is, as we all know, eminently recoverable from, not so epilepsy itself. It must be ever borne in mind that when we speak of recovery in a true case of mania-melancholia we refer to the individual attack, and that we can only hope, at the best, for a modified tendency towards recurrence. When we turn to the confusional insanities the case is somewhat different. There is less tendency to periodicity, but, unfortunately, the individual attacks are more severe, and the destructive action of the toxins upon the brain-cells is more rapid and more effective. I have shown that upwards of 40 *per cent.* of the admissions into asylums belong to this group. It is here, if anywhere, that our hope for the future of psychiatric medicine lies. According to Kraepelin from 14 *per cent.* to 20 *per cent.* of all patients admitted to asylums are the subjects of dementia præcox, of whom, he says, only 8 *per cent.* recover. General paralysis is, as yet, a hopeless disease. Puerperal insanities are favourable on the whole, but

under the influence of the more extensive employment of antiseptic precautions in obstetric practice their occurrence is gradually becoming less frequent. The most favourable cases of all are those suffering from acute alcoholism, of whom there are far too many in asylums. The confusional insanities must be attacked with the weapons of modern medicine; especially must that extremely unhopeful group of affections known as dementia præcox be brought under early treatment, for the destructive processes are so rapid that time is everything. The only way to advance our knowledge of these diseases is by hospitalising the treatment of the patients in exactly the same way as is done by the study and treatment of ordinary patients in general hospitals attached to large centres of scientific research such as exist in university cities. I say hospitalisation, for it must be manifest that persons suffering from such serious maladies as most of the types of confusional insanity really are require the best form of hospital treatment if they are to have any good chance of recovering from the grave symptoms of which they are the subjects. It is perhaps true that as yet the basis of any treatment is only empirical; but with the spread of more accurate knowledge regarding the pathogeny of these affections every day is bringing us nearer to a rational basis of treatment. In all cases of insanity complicated with leucocytosis there is a state of high blood-pressure which aggravates the symptoms. The surest and the safest way of modifying that high arterial tension is by rest in bed. In a paper by Dr Lewis Bruce and Dr. Alexander (⁵) I find the following suggestive remarks: "During the early period of the attack, when the pulse was quick, the temperature sometimes elevated, the patient sleepless, and the mental symptoms acute, the arterial pressure was high, varying from 140 to 180 mm. Hg. If the patient were kept in bed and the arterial tension taken night and morning, we found that in the course of a period of very variable duration the tension gradually fell to 120 or 130 mm. Hg., this being preceded by a fall in the pulse-rate; the temperature tended to be slightly below the normal, all the mental symptoms lost their acute character, and the patients began to sleep again at night."

There could be no better statement on which to base the argument for the hospitalisation of acute cases of insanity than this. We have hitherto regarded mental affections too much

from the mental side, to the exclusion of the grave physical changes which underlie the mental manifestations. In the great majority of acute mental affections there are the following physical symptoms present, namely, leucocytosis, an increase in temperature, insomnia, profound digestive disorders, and metabolic changes which are apparent in the marked alterations in the normal constituents of the urine and other secretions. While those morbid changes last in their intensity it must be evident to every one that a person suffering from them is much more seriously ill than a superficial description of mere mental symptoms would lead us to suppose. In short, we are gradually being forced to the conclusion that the mental symptoms in the acute psychoses are mere manifestations of a disordered physical condition, just in the same way as the delirium of fever is a mere symptom of certain phases of intoxication of the nervous system. If this view is to prevail, it will entail a revolution in our present methods, for it is to the body and not to the mind that, in the first instance, remedial measures must be directed. The necessary consequence of such a general attitude towards mental affections of the acute type will assuredly be the breaking down of the distinctions which have, up to the present, separated the treatment of acute insanity from the treatment of other bodily diseases. Thanks to the labours of a few distinguished workers in various parts of the world, a new era has already dawned. The time for the expectant treatment of acute insanity, based on the theory that it is a pure nervous storm with secondary physical symptoms, is over, at any rate for the present, and can only be revived by incontestable scientific proofs. But if the patient is not a rich man he cannot, under the present system, receive either treatment or advice except within the walls of an asylum, from which he and his friends naturally shrink so long as the character of his mental symptoms does not necessitate his removal thereto. It comes to this, that a man suffering from any form of mental affection of an acute character must, if he cannot afford to be treated in his own house, be certified and removed to an asylum without the opportunity of being first examined and observed with a view to ascertaining whether his malady is of such a nature as to require such removal. The existing lunacy laws were framed, among other reasons, with a view to securing the liberty of the subject, and for a long time to come probably

that safeguard must be retained ; but in respect of the point I am now discussing we have outgrown these laws, and, so far from securing the subject's liberty, they have the contrary effect and actually conduce towards depriving him of his liberty. In the interest of the sufferers, for the furtherance of science, and for the spread of knowledge in the medical profession, it is essential that in every large city, and especially in every university city, there should be hospital wards for the treatment of acute insanity open to the public and to medical students in exactly the same way as are the other wards of a general hospital. To these wards should be attached an out-patient department to which patients may come for advice. The want of such an establishment in every great urban centre in this country is an expression of passive cruelty and indifference which can only be described as a blot upon our much vaunted civilisation. In this respect Germany, Italy, Austria, Switzerland, and some of the States of the American Union are ahead of us. I can only afford time to glance at one or two of the admirable provisions made in these countries, not only for the treatment of new and acute cases of insanity, but also for the so-called borderland cases and neurotics of all kinds.

There are twenty universities in Germany and in connection with each university town there is a clinic for mental diseases, the chief of which is the Professor of Psychiatry in the university. These clinics are of various forms. Some of them are wards of general hospitals, others are separate pavilions in connection with hospitals ; others, again, are detached buildings with separate organisation, but always forming a part of the group of clinics which form a modern German hospital and medical school.

The Psychiatric Clinic of the University of Heidelberg, which was opened in 1878, contains about 150 beds, and about 320 patients, on the average, are annually treated there. It forms, as will be seen from the accompanying plan, a part of the buildings of the medical school of the university.

The Clinic of the University of Tübingen is one of the most modern and best equipped in the German Empire. It was opened in the year 1893 and has 120 beds. On an average over 300 patients pass through it annually.

The Clinic of Giessen in the Grand Duchy of Hesse, which was opened in the year 1896, consists of eight separate

pavilions for a population of from 80 to 100 patients. In many respects it is quite unique and one of the most admirable institutions in the world. Time will not allow me to describe its various good qualities—I must content myself by referring any of you who are interested in the subject to the recent Report of Dr. Serieux to the Department of the Seine upon the care of the insane in Germany and other European countries.

The Clinic of the University of Wurzburg in Bavaria is a comparatively small one, having only 60 beds, but it manages to pass through its wards no less than an average of 207 patients in the course of a year.

In the State of New York a pavilion for the reception of recent and acute cases of mental disease has been erected in connection with the new hospital of the City of Albany. The design provides a two-story building, connected with the main hospital by a corridor, and conforming with the latter in architectural style. This pavilion furnishes transient accommodation: (1) for patients about to be certified; (2) for patients who need observation; (3) for mild cases of insanity who may recover in a general hospital; (4) for rapidly developing cases of delirium; and (5) for the sudden and often dangerous forms of mental disorder which occur in the course of general diseases or after the shock of surgical operations.

[Lantern slides showing photographs and plans of various foreign psychiatric clinics were shown.]

The reasons for establishing clinics for mental affections in Germany are the same as some of us have been urgently pressing for several years in this country. They are necessary for supplying early advice and treatment to patients labouring under acute insanity; for the remoteness of most of the large asylums from the large centres of population and the formality and certification required for admission render them unsuitable for this purpose. Moreover, a large and increasing number of the patients who urgently require treatment in such clinics are not certifiable as lunatics and should not be subjected to the necessity of certification before they can obtain treatment or advice, as at present. I refer to neurasthenic, alcoholic, epileptic, and other borderland cases of insanity. At Giessen in 1896, 6.5 *per cent.* of the total admissions were not certifiable; but in 1901 there were 23 *per cent.* who were not certifiable, showing how the necessity for the institution existed all along,

and how, as its usefulness became gradually known, it has been more and more taken advantage of. Within the United Kingdom at the present time there is not a single clinic which serves the purpose I have been describing. How long we are to remain in this unenviable position depends upon the medical profession and upon the ethical sense of justice and humanity of the British public. I would not be doing justice to one city in this country if I did not modify what I have just said by referring to the magnificent provision which the Parish Council of Glasgow have recently made in one of their new central hospitals for the observation and treatment of incipient cases of insanity. Two wards, one for men and one for women, each containing twenty-five beds, have been fitted up with every necessary care for the comfort and nursing of this class of patient.

Out of every 100 patients who have been more than a year in a Scottish asylum, 64 require the care and attention which can only be received in an institution, and 36 are quiet, harmless, and not in need of the same special care. For the latter class residence in an asylum is not by any means absolutely necessary. It is pretty well known among those who are interested in lunacy administration all over the world that between 18 and 20 *per cent.* of all the pauper lunatics in Scotland are living in private dwellings throughout the country. On the first of January, 1904, there were 11,404 in establishments and 2658 in private dwellings. It is, however, necessary in the interests of the insane, as well as in the interests of the ratepayer, that a very great deal more should be done to remove from institutions those patients who do not require confinement or restraint. With regard to the patients referred to, it may be at once conceded that a certain number of them are content in asylums, that a certain number of them would not be happy anywhere, and that a certain number who are quiet in institutions would not remain placid and manageable under any other condition of life. But when these admissions have been made, there remains a large proportion to whom life in an institution is irksome and all but intolerable. For those for whom no other kind of life is suitable or expedient nothing else can, of course, be suggested. The interest of the ratepayer comes to be considered when it is apparent that the money he is called upon to expend is unnecessary, and that other means prefer-

able or superior to the old methods of perpetually adding on accommodation to asylums which for such patients costs from £100 to £200 per bed, can be provided at infinitely less cost. For these reasons there is a duty laid upon us to extend the scope of the boarding-out system which in Scotland has done so much to increase the happiness of the insane poor and to relieve the public of a steadily-growing expenditure. In the meantime there is in Scotland a sufficient margin of opportunity for doing this for many years to come, and should that margin ever become exhausted there are, fortunately, other applications of the same system which have been highly successful in other countries. In Germany the system of colonies attached to asylums and under the supervision of the asylum medical officers has undoubtedly conduced towards the disencumberment of the institutions from an accumulation of the quieter chronic patients, given the patients themselves more natural and more cheerful surroundings, and greatly reduced the cost of maintenance. Outside Scotland the favourite form of family care has been the "colony" system. This system, which is typically represented at Gheel and Lierneux in Belgium, and at Dun-sur-Auron in France, may be briefly described as the concentration of the insane in the private houses of a village or series of adjoining villages, under the supervision of a medical and lay staff, whose duties consist in administration and supervision. A small central hospital serves at once the purpose of a sick-room for patients suffering from physical ailments and a retreat for those who are overtaken by recurrent temporary attacks of insanity.

In a preceding lecture I spoke of the increase of insanity as an expression of the ethical attitude of the public towards disease. If there is any truth in that remark, we are very far indeed from having gauged the depths of the neuropathy or psychopathy in the community. Of this opinion there is sufficient proof in the recent legislation for the care of inebriates, in the movement for the founding of epileptic colonies, in the increased interest in the study of criminology, and in the general tendency of society to regard the actions of its anti-social members as irresponsible. There are many persons in this country, especially in the large towns, whose repeated convictions for petty offences in the police-courts raise prominently the question of their mental unsoundness. It is true that the

great majority of these chronic offenders are inebriates, but the State has already acknowledged the mental irresponsibility of the more confirmed section of this class. Many, however, are not inebriates in the true sense of the word. Some of them are kleptomaniacs, others are imbeciles who tend to commit breaches of the peace upon trivial provocation; others, again, are so irritable or profligate, or so lacking in self-control, that they are incapable of directing their own conduct. It is lamentable that our civilisation should be unable to devise any other means for dealing with these people than repeated committals to prison for short periods, varying from three to ninety days. It is not too much to say that some weak-minded offenders pass most of their time in gaol. I show a table extracted from the last copy of the *Judicial Statistics (1903) for Scotland*, which enumerates the number of persons who had had upwards of fifty previous convictions.

Showing the Number of Persons convicted for Petty Offences in Scotland in 1903 who had had more than 50 previous Convictions.

Number of previous convictions.	Males.	Females.	Total.
50 to 100	378	604	982
100 to 150	78	187	265
150 to 200	5	52	57
200 to 300	0	28	28
Over 300	0	1	1
Totals	461	872	1333

It is only the shortness of human life which limits the number of these convictions. I have taken the standard of fifty previous convictions because there might be some doubt as to the mental irresponsibility of the subjects of a smaller number. I can hardly conceive that anyone could be callous enough to hold that a person who has had upwards of fifty convictions, for any reason, is mentally sound. In any case, the truth can be arrived at in another way, namely, by the individual examination of each of these persons.

But whatever opinions may be held as to the sanity or insanity of these 1300 persons, everyone will admit that their repeated committal to prison is useless ; that it produces no reformation ; that it rather tends, if that is possible, to callousness and further degradation. Moreover, it is by no means a cheap or inexpensive method. What, then, is to be done with such people? Without doubt, they ought, as early as possible in their career, to be relegated under indeterminate sentences to institutions of the colony type, such as I shall immediately describe. The Committee on the Physical Deterioration of the People (1904) make the following recommendation in their Report : " It may be necessary, in order to complete the work of overcrowded slums, for the State, acting in conjunction with the local Authority, to take charge of the lives of those who, for any reason, are incapable of independent existence up to the standard of decency which it [the State] imposes." The 1300 persons to whom I have referred might, for this purpose, be divided into two classes according to whether they are certifiable as insane under the present standard of certification or are not. Those who are so certifiable might be sent to the ordinary asylums, those not so certifiable to labour colonies on the lines of the Salvation Army Colony at Hadleigh, with power of compulsory detention. There are reasons, however, why it would be better that they should all be treated together, in a central institution. All the benefits of a labour colony are afforded in the construction of an institution similar to a modern village asylum. Certification is a variable and in many respects a useless distinction except in so far as it safeguards the liberty of the subject, which in this instance is not in question. It would, of course, be undesirable to commit any person to such an institution without full judicial inquiry at which medical evidence would be taken. Such an institution should be under the charge of a physician trained in the treatment of mental diseases and assisted by a specially trained staff of assistant physicians. In short, it should be managed exactly like a modern asylum, and should have no prison element about it at all. It should possess abundance of land for agricultural and other pursuits. It should be built upon the village type, and possess a central hospital for the treatment of physical disease, of recurrent attacks of insanity, to which this class are peculiarly subject, and for the observation of cases whose mental

condition requires prolonged clinical study before judgment is pronounced in criminal cases. Under the present system the mental condition of a prisoner on trial is too often decided in court upon the partisan evidence of medical witnesses who generally contradict each other upon data which are notoriously inadequate for the formation of correct opinions. Such a procedure has long ago been discarded in many of the American States and in Germany, where special facilities for observation ("Bewahrungshäuser") are provided. It is a question to be considered whether such an institution as I have described should be also an asylum for criminal and dangerous lunatics or not. But whatever its other functions, one thing is abundantly clear to my mind—that it ought not to be in any sense a penal institution, and for the same reason it should not be in any way connected with the administration of prisons. I have indicated that a large proportion of the class of persons referred to are inebriates. Those who understand such matters tell us that they are that and something more besides. They are cursed with a mental and physical organisation which stamps them with the unmistakable signs of mental alienation, which may or may not be of the ordinary type. It is on this account that their treatment is so hopeless, and that we so constantly hear of the inoperativeness of the recent legislative enactments for the treatment of inebriety. The terms "reformatory" and "reformation" as applied to such cases are misnomers. Most of the persons who, under the existing laws, qualify for committal to inebriate homes and State reformatories can no more be reformed than an imbecile can be made intelligent by subjection to disciplinary treatment. I believe that there is a large class of reformable inebriates if they could be brought under early treatment, but that is a totally different question from the one under consideration, and one which has not as yet received practical attention. The class of inebriates I am referring to is practically the same as the class which I have designated "weak-minded chronic offenders," and ought to be treated in exactly the same way, namely, by indeterminate sentence to such an institution as I have described. A word as to epileptics. In Scotland we are very far behind other civilised nations in so far as we have no national institution for the reception of this pitiable class of the community. Far too many of these are confined in asylums as ordinary certified

lunatics, where they are unhappy, and where they are consequently more troublesome than in other countries where special provision is made for their separate treatment. We require a national institution for epileptics on the lines of the great epileptic colony of Bielefeld, in Germany.

I come now to the important question of how these institutions are to be organised and administered. In the first place, Scotland being a small country, they must be central institutions. If they are central, they must be State institutions, with this provision, that each district or community shall pay for the maintenance of its own members who are inmates of the institutions. But if they are to be State institutions they must be subject to State inspection and supervision. Upon the question of who the supervising body should be depends the welfare and success of the whole scheme. There are already a sufficient number of public departments in Scotland and the creation of a new one *ad hoc* is to be deprecated. If the Scottish public departments are to remain as they are at present, then I have no hesitation whatever in declaring my opinion that institutions for the various classes I have mentioned should be under the Lunacy Authority. I do not pretend for a moment that they would therefore be better managed. It is the duty of the country to see to it that such institutions are efficiently conducted, whoever the superiors may be. My reasons are as follows : (1) The persons to be treated are either insane or weak-minded or suffering from physical infirmity ; (2) if there is to be any advance in our knowledge of the processes which underlie the various symptoms of mental and physical deterioration under which most of these patients labour, they must be studied medically exactly as other forms of mental affection are studied by trained and skilled physicians ; (3) the medical element in administration must prevail, to the exclusion, or at any rate the subordination, of the penal ; (4) the intimate alliance of the malady of the certified with that of the uncertified insane would necessitate the constant interchange of individuals from the one class of institutions to the other ; (5) the construction, management, and hospital character of modern asylums is essentially the same as ought to characterise any modern institution for the reception and treatment of epileptics, inebriates, and weak-minded offenders. Sooner or later some such proposal as I am now

formulating must in one form or another come into practice, and it is highly desirable that it should emerge under the influence of the best available traditions. The traditions of the lunacy system in Scotland are exactly the traditions which are required for dealing successfully with the weak-minded offender and the inebriate. It is useless to think of punishment, which at best can only be defended as a means of reform. But if we believe, as we surely must do, that reform in this instance is difficult to attain and that the main object is to preserve the decency and order of the community and to promote the welfare of the individuals concerned, then we must adopt some such scheme as I have sketched. Not only are the traditions of the lunacy system in this country the most desirable for dealing with the class in question, but the construction of the modern asylum of the village type is the best imaginable form of institution for their detention, for it combines the advantages of the hospital system with that of the labour colony.

The great advantage of the "village" asylum is the segregation of the various buildings into small villas, which permits of the classification of the inmates to any extent that is desired; so that the quieter inmates can be wholly separated from the noisier and more turbulent, the acute patients and those requiring active medical treatment from those who are in need of no treatment, and, finally, those who are capable of enjoying more extended liberty can live apart from those whose actions demand, for any reason, close supervision. There is, in fact, no limit to the extent of the classification which can be carried out in such an institution, so that patients of all classes can be accommodated in it without any danger of interfering with each other or affecting the harmonious working of the asylum. So much is this the case that in some German and Italian asylums of this type there are separate villas for the reception and observation of criminal lunatics whose residence in no way incommodes the life of the other patients with whom they do not come in contact. The village type of asylum has been in existence in Germany for many years, and was there first of all made famous by the well-known asylum of Alt-Scherbitz in Prussian Saxony. We owe its introduction into this country to Sir John Sibbald, who, as Medical Adviser to the Edinburgh District Lunacy Board, recommended the erection of that type

of institution for the new City Asylum at Bangour. The idea was adopted by the Aberdeen District Lunacy Board in the construction of their new asylum of Kingseat, which is now in full working order, and is the first village asylum opened in Great Britain. At the present time there are two other similar asylums in course of construction, namely, the Edinburgh Asylum at Bangour and the new asylum for Renfrewshire at Dykebar, near Paisley.

[Various slides were shown, of Aberdeen, Ansbach, etc., also the provision for criminal lunatics at Duren, in Germany.]

The village type of asylum has not only greatly facilitated our methods of dealing with the insane, but it has permitted us to see how in the future the problems of undertaking the suitable disposition of the accumulating masses of the insane for whom asylum treatment is absolutely necessary are to be solved. It combines the advantages of the home and of the labour colony. It has taught us how to cheapen the construction of asylums while rendering them more efficient and more adaptable to their purpose; and above all, it has shown us that the hard lot of the insane can be made a little brighter and happier than under the old, more expensive, and more cumbersome method of erecting palatial prison-like buildings.

All these developments in asylum construction and lunacy administration point to the conclusion that a time is approaching when the treatment of acute insanity will be sharply separated from the care of the chronic insane and to such advances in our knowledge of the pathogeny and pathology of acute insanity as will enable us, without prejudice, to treat mental disturbances as we now treat pneumonia or enteric fever, in ordinary central hospitals, while other forms of insanity too numerous to mention must be cared for in colonies and village asylums under the most favourable circumstances as regards home life, occupation, and classification.

(¹) Delivered before the Royal College of Physicians, Edinburgh, February 3rd, 1905.—(²) Dr. Wigglesworth, *Evidence Phys. Det. Com.*, 8983, and Dr. Ford Robertson, *Brit. Journ. of Inebriety*.—(³) *Vide* Samuelson's *Hist. of Drink* and Shadwell, *Phys. Det. Committee*, 12280-86.—(⁴) *Journal of Mental Science*, January, 1877.—(⁵) *Journal of Mental Science*, October, 1900.

A Contribution to the Study of Disorders of Visual Association in Insanity.—By SYDNEY J. COLE, M.A., M.D. OXON., Senior Assistant Medical Officer, Wilts County Asylum.

THE mental processes in relation to vision are disordered in many cases of mental disease, particularly in such as present the symptom of disorientation. The normal individual orientates himself in his environment mainly by the help of definite trains of visual ideas—such, for example, as are aroused in us when we glance round our room, go about the house, or take a walk out of doors. If a patient in an asylum thinks he is in his own home, and mistakes the attendants for his relatives, he is clearly unable to *see* how the present environment differs in aspect from the former environment in which he imagines himself. While from one point of view such a disability presents itself as a failure of memory, from another it appears as a form of mind-blindness, demonstrable by appropriate tests, and resembling in some ways the mind-blindness resulting from circumscribed coarse damage of the brain.

In insanity a visual disorder of this kind is frequently obscured by a multitude of other symptoms, and its investigation becomes correspondingly difficult. Too often we find that observation is baulked by distracting hallucinations, by suspicion, or by disturbances of the functions of hearing and speech. But in some cases the visual disorder is evidently predominant, as in the case of Korsakow's psychosis which forms the subject of this paper. In this instance the hindrances to examination were few, and a number of important points could be observed.

The case affords an unusually clear illustration of a form of mind-blindness probably not very rare in mental disease. The case has an additional interest as confirming the observation that in Korsakow's disease the impairment of immediate association and memory is apt to be unduly severe in relation to some one of the special senses, the associations of the other senses escaping with a less damage. From the little we as yet know on this point it would seem that in a majority of cases the associations which suffer most damage are those connected with hearing. If this is so the present case is an exception to the rule, for there could be no doubt that in this instance the defect was greater in relation to vision.

Labourer's wife, æt. 53, a heavy drinker; no children; no previous mental disorder; no insanity in family. Except for a "severe chill" in August, 1903, she is said to have been well in mind and body until the middle of October, when she "suddenly lost her senses, and her legs became useless at the same time." Since then she had been conversing with imaginary voices of relatives long dead. She was removed to a workhouse infirmary, where similar hallucinations were noted as late as November 19th, 1903. She mistook the nurses for relatives, and gave accounts of imaginary journeys made "this morning."

When admitted to asylum from workhouse, on November 25th, 1903, she was unable to stand. Patches of anæsthesia and analgesia were found on the legs. By December 12th these patches had to a large extent faded, there being then only slight blunting of sensation to light touch and no analgesia to pin-prick. No muscular tenderness. Kneejerks and plantar reflexes absent. There was comparatively little muscular weakness of the legs; she could move them well in bed, and her sense of their position was fair. The inability to stand seemed partly due to some disorder of co-ordination or equilibration.

There was a little fine tremor of tongue and fingers. Speech-articulation good. Pupils equal, regular, reacted freely to light and accommodation. Vision apparently good. Hearing unimpaired, tested with watch. No evidence of thoracic or abdominal disease could be made out, and her physical condition seemed fairly good.

When she was admitted the hallucinations had subsided, and there has been no recurrence of them since. She displayed all the characteristic symptoms of Korsakow's psychosis—retrograde amnesia, rapid obliteration of recent impressions, fluctuating misconceptions of the environment in the sense of past situations; abundant confabulation and pseudo-reminiscences without any admixture of extravagant or fantastic elements, ready susceptibility to suggestion, absence of delusion or of marked affective disorder, preservation of normal modes of thought, and unimpaired command of language. Her mental condition varied little from day to day or from hour to hour.

December 12th.—She is in bed in the sick dormitory. When left alone she appears absent-minded or somnolent. She takes little notice of things around, and her visual attention seems very bad. Her auditory attention, however, is easily fixed and held. She readily comprehends all that is said to her, answers questions willingly and with manifest *bona fides*, and is quite coherent in speech. Her general demeanour during conversation is little different from that of a normal person.

Orientation.—She says this place is "Mrs. A.'s house," a few minutes later, "the hospital"; then, "Miss B.'s place" (Miss B. "keeps the little oil-shop at the corner of W— Road"). She thinks the nurse is Miss B., and that I am Mrs. A.'s son, later "Mr. C." Her interpretation of the environment is not only fluctuating, but is readily influenced by suggestion. *E.g.*, I hand her some money to count; it now needs only to tell her that unless she pays her rent more punctually she will have to leave the house, and she is instantly persuaded that she is at home, and that I am the landlord.

Confabulation.—In response to questions she confabulates freely. Says she has been to Mr. R.'s to-day to cook a dinner, after she came

back from the funeral. This morning she went to the hospital because her legs have got so weak, because her father thought she had small-pox, etc. Miss B. has let her sleep here these three days because she is not well. She came here "this morning." The patient is clearly unaware of the contradictory character of her statements, and betrays no subjective confusion.

Retrograde amnesia.—Asked where she lives, she gives a former address in another district. When told her last address, she denies all knowledge of the place. She can answer some simple questions on events of the Victorian era, down to the early part of the last South African war. But she thinks Queen Victoria is still living; and when told of King Edward's accession, illness, and coronation, she is found to be quite ignorant of these more recent events.

Ability to retain recent impressions is very greatly reduced. So far as one can judge, no impression whatever is revivable after two minutes at most. Shown an illustration in a child's book, and made to read aloud the brief passage relating to it, she completely forgets in less than two minutes that she has seen any picture or read anything. Questioned as to reading, she confabulates, says that she read in a newspaper the account of an accident, that she was reading poetry this morning to Miss B., and so on. Made to read the passage again, she shows no recollection. This test was applied three times in rapid succession, with the same result.

Before proceeding to the description of the special defects, I may summarise the subsequent course of the case :

She began to leave her bed at Christmas, 1903, and by January 20th she was able to walk a little. Gait was somewhat unsteady. She walked slowly, with short steps, in a cautious, diffident way. Romberg's sign was absent. She did not know her way about the ward. Disorientation persisted, but was less fluctuating; she imagined herself more constantly at Miss B.'s place, and the charge nurse was nearly always "Annie, Miss B.'s maid." Confabulation had almost disappeared.

By April, 1904, she could walk much better. She thought she was in an infirmary somewhere, and had been there a week or two. She still mistook the identity of persons. Recent impressions could be retained longer, in some instances for five minutes or more. She realised to some extent that her memory was bad. She conversed freely and was an easy patient to examine. Most of the more detailed tests were made at this stage.

In August there was a further slight improvement in her memory for recent impressions. But with this improvement there came an increasing apathy, an intolerance of examination, a more noticeable susceptibility to fatigue. The better retention of impressions seeming to make her more aware of the time occupied in examination, she would not take the same trouble, would no longer be bored. She still thought she was "in an infirmary somewhere," and did not know the names of any of the persons with whom she came in daily contact. She showed great poverty of ideas, took no interest in anything, and began to hoard rubbish. In this condition she has since remained.

One of the most noticeable features of the case was a subjective difficulty of vision :

From December, 1903, onwards, she was constantly complaining that her sight was bad, and that things look misty and blurred. She attributed the defect to her eyes ; but nothing could be found wrong with them, save a slight presbyopia, which was thoroughly corrected with glasses, though glasses gave her little satisfaction. Her visual acuity was found to be good, for she could read small print in a newspaper, albeit with many errors, the nature of which will be described presently. Distant vision was good. The visual fields were carefully tested on several occasions, and showed no diminution. No abnormality of eye-movements could be detected ; there was no squint or nystagmus. Colour-vision was normal to wool-test ; she could match colours, name selected colours, and select named colours.

In January, 1904, it was noticed that pictures and other things which she was shown were forgotten more quickly than things which she was told. But neither visual nor auditory impressions seemed so well retained as tactual impressions. This may be illustrated by a note of January 21st :

On this date the following objects were used for the tactual test : a penny, a small flexible celluloid paperknife, a lead pencil, and two large door-keys, the second slightly larger than the first. Care was taken that none of the objects were seen by the patient, or named or described in her hearing. Each object was examined with the right hand only.

(*Penny*)—"A coin : it feels like a two-shilling piece."

"Is the edge rough or smooth?"—"Smooth ; it's a penny."

(After three intermediate irrelevant questions, the *smaller key*)—"A key."

"What had you in your hand before?"—"A penny."

(Is made to read aloud a short anecdote.)

"What was in your hand just now?"—"Book . . . Key . . . Penny."

(Questioned as to what she read, answers correctly.)

(*Paperknife*)—"I don't know what this is ; it is flat and smooth, and I can bend it ; it seems like a piece of whalebone ; the ends are round."

"What had you in your hand just now?"—"Piece of whalebone . . . Key . . . Penny."

"What were you reading?"—(answers correctly).

(Another anecdote is read aloud to her, about a boy who found a nest in a tree. Being immediately questioned, she repeats the substance of it.)

(*Pencil*)—"Pencil."

"What had you in your hand just now?"—"Piece of whalebone . . . Penny. . . I don't think there was anything else."

(Is now shown a *purse*, but not allowed to handle it ; is told not to say what it is.)

"What was I reading to you?"—"About the boy who found the nest."

"And what did you read to me?"—"No, sir, *you* were reading."

(Is made to read the first anecdote again; makes no remark.)

"Have you read that before?"—"No."

(The *larger key*)—"Key."

"Have you had it in your hand before?"—"You gave me a key, but I don't think it was the same; this is bigger."

"What else have you had in your hand?"—"Book . . . Pencil . . . Half-crown . . . Book. . . . I don't think there was anything else."

"What were you reading from the book?"—"About a boy who found a purse in a tree."

(*Paperknife*)—"This is the piece of whalebone."

(The *purse* shown as before)—"A tobacco-pouch."

Thus, after ceasing to remember the key so as to include the name in her enumeration of objects handled, and having in the meantime read and understood an anecdote, and afterwards forgotten not only its subject-matter but the very fact of having read anything at all, she was nevertheless able on handling a second key to remember handling the other, and even to indicate spontaneously the slight difference between the two.

This, and other like results on various dates, appeared to show that tactual impressions were better retained than visual or auditory. The results appeared to be too constantly in favour of the tactual impressions to be explained by any passing caprice of attention.

Visual impressions were the most quickly obliterated. If here and there a visual impression seemed unusually well held, this was apparently due to the contaminating influence of her more retentive auditory memory. We have to judge of such a patient's perception and recognition mainly by what she *says*. But whenever she pronounces the name of an object, an auditory association is manifestly established for that object, and contributes to her total memory of the object. And even if she does not name it aloud, auditory contamination may arise, from the revival in consciousness of the associated word. This influence of auditory association as a prop to the visual memory can rarely be altogether eliminated. Instances of its action will be found below. It will be noticed that it often leads the patient astray. The tactual results are more constant, because her tactual memory is more retentive, and therefore less dependent on such adventitious aids. Feats like the distinguishing of the two keys could hardly be achieved in any such roundabout way.

She had a very imperfect understanding for pictures :

Pictures.—April 6th, 1904. She is shown a series of pictures in a volume of the *Graphic*. One is a double-page engraving of W. Logsdail's picture, "A Venetian *Al Fresco*," representing a party of holiday-makers

in a gondola on the Grand Canal ; the spectator is supposed to be in the stern of the boat, looking forward. She sees that the nearer figures are seated at a table (in the well of the boat) ; she sees a mug on the table, and says, "These people are in an ale-house." She notes the man's pipe, the striped stockings of the child, the arm and bracelet of the girl, but does not realise that the other hand, which holds the fan, belongs to the same figure. She thinks the plate with knife and fork upon it is the man's hat. The vista of palaces terminating in the Rialto she recognises as buildings and a bridge ; but she thinks the ripples on the expanse of water are icicles. One of the mooring-posts in front of the nearest palace is also an icicle—later, a ladder. She does not appreciate the water as water until told. Even then she is not turned from the notion of the alehouse. When asked how these people could be in an ale-house, with water close to them on each side, she says, "From my father's house you could see the sea quite well." The vacant rush-bottomed seat in the immediate foreground is water—later, a spoon. The boat itself, the principal object, is not appreciated ; she has to be told that the people are in a boat.

Another double-page engraving represents "Visiting Day at Guy's Hospital : the Accident Ward." She notes the beds to right and left, the man with bandaged head, another with his leg raised ("he has broken his leg"). But the wheel-chair in the foreground is a bicycle (a bicycle figured in a previous picture). The place is an alehouse, or it is on board ship : these ideas are carried over by auditory association from the Venetian picture. The title in large letters beneath, the localising significance of the beds and bandages, and the great resemblance of the scene to her own present surroundings, are overlooked.

Some bullocks in an Indian scene are taken for donkeys.

About a dozen pictures were shown. Being at once taken over the same pictures again, she remembers only two—a small wood-cut of a clock, and the Venetian scene. She says, "There's a mug : this is the ale-house," and proceeds to point out the objects as if new and strange. Probably the recollection is largely auditory. Pictures which she saw less than two minutes ago are quite unrecognised.

Auditory impressions are better held. She is told that Russia and Japan are at war : after five minutes, when asked what she was told, she answers correctly. "Tokio," a word unknown to her ("it sounds like the name of some Indian plant"), is reproduced accurately after five minutes.

April 23rd.—The rush-bottomed seat in the Venetian scene "looks something like a mouse, a kind of cushion or something, a skin, with the claw of some animal." The picture is completely unrecognised in less than a minute. The policeman in the hospital scene suggests a prison. Her gaze is restricted to one half of the picture, until I tell her to "look over here." Now she notes some patients, and says it is a hospital. But it is found that she thinks the two halves of the picture, scarcely separated by the fold down the centre, are two distinct pictures, of which one represents a hospital and the other a prison.

June 10th.—(Venetian scene). "Some people in a boat, on the ice." The top of the nearer leg of the seat, a circular surface in a horizontal plane, which thus appears oval to the observer, is taken for the end of a

barrel. The individual rushes in the seat, as they turn over the edge, are thought to be the hoops of the barrel. Later she thinks the seat is "the end of the boat—if it *is* a boat." The hospital scene "looks like some dining-rooms"; one of the beds, with white counterpane, is a table with a cloth laid.

Thus, when the patient looks at a picture, she is able to identify many of the objects represented in it, but cannot combine them into a total concept, so as to grasp its significance as a whole. She draws her conclusions from an insufficient number of the objects. When the man with bandages suggests a hospital, she happens to be right; when the mug suggests an ale-house, she is wrong.

Since the process involved in interpreting the environment is not essentially different from that involved in interpreting a complex genre picture, the same failure of combination naturally finds expression in the phenomena of disorientation. Although the patient can identify most of the material objects in the asylum ward—objects of every-day life—she cannot construct any approximate conception of what sort of place it is. In times when she thought she was at Miss B—'s she was able to give a description of Miss B's house, as regards situation, the number, size, and character of its rooms, etc.; but she could not see that her description was totally inapplicable to the great ward—half dormitory, half day-room—in which she was now.

With a view to a simpler test, she was shown a series of outline drawings of single familiar objects (animals, furniture, architecture, etc.). A very obvious outline of an ordinary upright pianoforte she takes for a cupboard with a window above it (the music-rack); the pedals, however, afford her a clue. Another drawing represents an ordinary chair seen obliquely from a point rather below the level of the seat. She knows it is a chair; she sees the back, the seat, and the four legs, but she cannot say whether she is looking at the upper or lower surface of the seat, or tell which leg is nearest to the spectator. These points would be at once obvious to an ordinary person. It seems clear, from what she says and the critical way in which she approaches the subject, that she understands the problem propounded. Similarly, in the case of a perspective view of a window; she knows it is a window, but cannot say which side of it is the nearer. She has no sense of perspective or of scale.

It is not strange, therefore, that she makes considerable errors in estimating the size of material objects in terms of standard measures of length. A cigarette, 3 inches long, she thinks is "a *piece* of a cigarette about $1\frac{1}{2}$ inches long." A table, 10 feet distant, is "a little over a yard away." She seems to have approximate notions of the inch and yard, but is unable to apply them to her present impressions.

If only a part of an object is represented in a picture, the rest being

hidden, she often fails to recognise it, though the part visible should amply suffice for a diagnosis. Thus, even the whole back of an ordinary chair, appearing behind a seated figure, is beyond her comprehension; "I can't make out what that is at all."

That these shortcomings are not due to defect of intelligence as ordinarily understood, but to imperfect grasp of visual forms in general, is shown by more elementary tests :

She is shown two cards, on each of which are drawn about a dozen large capital letters in the German character (half an inch high), chosen as being comparatively simple abstract forms, unfamiliar to the patient. These are arranged in a different order on the two cards. She is shown a letter on one card, and asked to point out a similar letter on the other. There are numerous errors. She rarely chooses the right letter at the first attempt, and often makes repeated failures. The wrong letters chosen are such as somewhat resemble the correct letters (S for G, G for E, N for K, etc.). She is asked to copy some simplified forms of these letters; most of her attempts are materially inaccurate.

She is shown two different patterns of simple Greek frets. She is able to see that these are different, but cannot point out where the difference lies, though this should be the easiest thing in the world.

Her capacity for elementary eye-measurement seems fair. She can with approximate accuracy bisect a straight line five inches long, and can insert the mid-point in a circle.

Drawing from memory.—She is asked to draw a clock "out of her head." She draws a somewhat deformed circle, and then inside this she begins to draw a square, which she explains is intended for the outline of the clock-case. When she finds she has drawn this on what was to have been the dial, she is vexed and discouraged. I then draw a circle and ask her to indicate on it the position of various hours on the clock. She puts 9 where 3 should be, and 7 where 4 should be. Yet she can read the time promptly from a watch.

Drawing from copy.—On another occasion she was asked to draw a copy of a very simple outline figure of a man. Seen by itself, I do not think anyone could tell what the result was intended to portray, though, on comparing with the original, a few points of correspondence could be traced. She draws everything laboriously in small bits. When she has drawn one fragment, she does not know where the next is to come; she says herself that this is her great difficulty. She makes abortive attempts to start again in impossible situations. The hat is completely separated from the head, and the head from the body; and, but for my assistance, all the limbs also would have been widely scattered over the paper.

In all these tests, made on various dates in April and June, the patient appeared to give herself whole-heartedly to the matter in hand, and showed by her remarks and questions a considerable amount of intelligent interest. Her subjective difficulty of vision found repeated expression.

Reading.—The disorder of reading was more marked in the early stage (December, 1903). Even with large print she read very slowly, stopping

to scrutinise each word separately before pronouncing it, marking its position with her finger lest it should be lost. Even so, the errors were many and egregious. For example, *pigs*, in letters nearly a quarter of an inch high, was read as "pigeons." In later stages she read much more quickly, and with fewer errors. In June these errors were chiefly such errors as "microscope" for *masterpiece*, "precisely" for *precipitately*. The wrong words showed a visual rather than an auditory resemblance to the correct words, and where a word was read partly right and partly wrong the error was usually in the latter part of the word. Some quite easy words were misread (e.g., "hungry" for *hurry*), with great violence to the sense of the immediate context; yet many long and uncommon words were correctly pronounced without difficulty. Some rather curious errors were of the nature of paraphrase, as "a little moment" for *a few minutes*.

Writing.--In the later stages she could write from dictation, in a steady, legible hand, provided that the words were dictated separately. The easier words were written rapidly and correctly. But whenever the spelling had to be considered the visual defect seemed to open the door at once to numerous errors, omissions of letters, repetitions of letters, and of groups of letters. After any pause she had difficulty in continuing the word.

In proceeding to a general discussion of this case, I need not point out the futility of attributing the patient's mistakes to "confusion." They *are* the confusion—if, indeed, there is any justification for the use of this term. In a confusional disorder, no less than in the normal state, the mental processes must be subject to rigid laws. Their results are different, only because the conditions under which these laws operate are different. It is our business to discover, if we can, the nature of these laws and conditions.

It may be asked how far the visual errors were due to defect of attention. Undoubtedly many of them appeared under the guise of such a defect. The state of the attention is a factor which must ever be kept in mind in the examination of such patients; want of due regard to this may render the results in many kinds of tests valueless. In the present case many of the most obvious and striking features in pictures appeared to be overlooked, even when the patient seemed thoroughly interested, and, so far as one could judge from her comments, was paying her whole attention. It seems more correct to regard the apparent defect of attention simply as a mode of expression of the mind-blindness. In an English journal it is needless to insist that the assumption of a special "faculty" of attention leads to error. If we assume such a faculty, we have to inquire why it

was in this case so much more defective for vision than for hearing; and to explain this discrepancy we should have to invoke a special defect of *visual* attention, distinct from other defects of vision and from other defects of attention—a useless and unwarrantable complication.

In this, as in other cases of Korsakow's psychosis, ability to retain recent impressions is impaired for all forms of sensation, but not equally. According to Bonhoeffer (¹) the defect is in most cases greater in relation to hearing than in relation to vision and touch; but he adds that he has seen one case in which visual impressions were more rapidly effaced than auditory, and he mentions similar instances reported by Liepmann and by Kiefer. My present case belongs to this class.

The obliteration of visual impressions is probably more rapid and extensive than would at first sight appear. It is considerably masked by the sustaining influence of auditory association. Impressions which awake no definite or sufficiently precise auditory association seem to vanish almost instantaneously. This goes far to explain the mind-blindness.

At any rate, it explains certain apparent inconsistencies in the visual test-results, *e.g.*, ability to recognise objects in pictures, with inability to indicate the difference between two simple patterns of ornament. We may apply the same principle to the drawing-test.

The failures in drawing are clearly quite different in kind from such as would be occasioned merely by want of practice. In many respects, particularly in the dismemberment of parts, they closely resemble those which Lissauer described in his well-known case of mind-blindness (²). When the patient has drawn one portion of an object, *e.g.*, of the figure of the man, she does not know where the next is to come. To continue correctly, the person who draws must perceive at each moment all the principal spacial relations of the unfinished part. Before these can be applied in the drawing they must first have been perceived in the original. To some extent they have been so perceived, else how should she know that the figure represents a man? But the tests with simple meaningless forms show that such elementary relations are very imperfectly apprehended.

An ordinary person looking at such a figure perceives these relations, though perhaps not so clearly as would an artist. After some time his recollection would be less precise. He

might remember what kind of hat the man wore, but might not know whether the profile was directed to the right or to the left. The details would gradually fade from his memory, till finally he would forget that he had seen any figure at all.

In our patient this slow and gradual process is enormously accelerated. It is compressed into a period so brief that some elements of the visual impression vanish with extreme rapidity, in times to be measured in fractions of a second. The elementary partial impressions from the figure cannot be kept sufficiently long in the focus of consciousness to enable the patient to perceive adequately the relations of the parts to one another. They persist long enough, however, to arouse the concept "man," awaking higher associations, including the important auditory association of the word "man." Auditory ideas are in this case better retained. So, during the greater part of the time occupied in drawing, she has no clear perception of the particular figure before her, but only a more or less devisualised concept ("man"), kept alive mainly by its auditory component. We see, here, simply another aspect of that state of things which is manifested in extreme degree when a concept is carried over from one picture to another, *e.g.*, in the interpretation of the wheel-chair as a bicycle. In the tests with simple meaningless forms auditory associations cannot be called in to help, and hence the imperfections of visual perception are more fully displayed.

Now let us suppose an ordinary person looking at a picture which he does not understand, *e.g.*, an oil-painting much blackened with age. He sees dim patches of light and dark, but they convey no meaning. Suddenly he realises that it is a portrait, and now all these partial impressions from the object are seen in their true relations. But he would not have been able to realise the portrait if certain of these details had not previously been perceived in some sort of mutual relation. If one were forgotten as soon as his eye had wandered to another, recognition would have been impossible.

Such partial impressions from an object may be regarded as its identification-marks, the data for its recognition. Sachs has pointed out ⁽³⁾ that objects of vision differ widely, according to the number of such data available for recognition, and according to the number necessary for recognition. For the recognition of a human face, as a face, the number of data available is

enormous, and any few together will suffice to determine the awakening of the appropriate concept, "face," in the mind of the beholder. But for the recognition of a particular face, *e.g.*, that of a friend, a large number of minute data are necessary. On the other hand, in the case of letters of the alphabet, the available data are few, but practically all of these are necessary. Erase a single stroke from the letter E, and it becomes F.

In disorders such as that exhibited by our patient the question whether a given object can or cannot be recognised seems to depend more upon the number of data necessary than upon the number available. The greater the number necessary, the greater the likelihood of failure. Rapid evanescence of impressions would readily explain why this should be, and why in these cases we find mistakes as to the identity of persons more frequently than letter-blindness.

When we have to do, not with single letters, but with numbers of letters grouped into words, the probabilities of failure are increased, because of the greater number of data required. So it is common to find disturbances of reading.

That the patient's errors in reading were not simply the result of imperfect education, but were related to the visual defect, is shown by the great improvement observed in the course of a few months. The paralexia resembled that of delirium tremens, as described by Bonhoeffer (⁴).

In spite of the large number of data required for the recognition of words, the results in reading are good compared with those in visual tests of other kinds, because of the very great support afforded by auditory association. The auditory associations of written language are peculiarly definite: indeed, for all ordinary people the auditory association is the very *raison d'être* of the written word. The support which it affords can be made still greater if necessary by spelling the word letter by letter.

I incline to the opinion that the main cause of the mind-blindness in this case is, that the obliteration of impressions is so rapid as to interfere with the process of perception itself. The ascertained fact of rapid obliteration shows the means by which Sachs' principle of recognition-data can come into play.

But, whatever the reason, the elementary partial impressions are not apprehended as they should be, and consequently do not always give sufficient support for the construction of the appro-

priate concept. When shown some lilies in a vase, the patient knows they are flowers, but cannot say of what sort : a thermometer is a "barometer" : a soda-water syphon is simply a "bottle" ; and similarly in the case of other objects, especially in pictures. She uses names which have a wider and vaguer significance. An ordinary coal-scoop, lying on coals in a scuttle, she describes as "tongs." The data in this instance are sufficient to arouse the wide concept "instrument-wherewith-to-put-coal-on-the-fire," but not sufficient to restrict this to the narrower concept "scoop" or "shovel." She uses the name of an object of similar use, but the correct name might equally well have occurred to her. I believe that it is not that she understands the object wrongly, as a thing with which to grip the coal ; nor that she understands it rightly, as a thing with which to shovel, and calls it "tongs" because she cannot find the name ; but that it is because the concept is not sufficiently defined and restricted by the data given in the visual impression. Similarly, the wheel-chair in the picture arouses only some such concept as "object-with-wheels," and she describes it as a bicycle simply because the word "bicycle" is fresh in her memory. It is not that she uses a false name for the right concept : she has not got the concept. None of these instances are evidence either of illusion or of word-amnesia.

I have mentioned the incident of the "tongs" because it was the only instance at all suggestive of word-amnesia (optic aphasia). As I think I have shown, it may be explained in another way. While the patient frequently complained that she could not make out objects which she saw, she never, in any other instance, by word or manner, betrayed any difficulty in finding the name for an object which she clearly understood. Having regard to her general standard of intelligence and her excellent command of language, such a disability, had it existed, could hardly have escaped notice.

I believe that the errors are traceable to the inability to apprehend thoroughly the elementary data given in the visual impression : in other words, they represent what Lissauer calls an "apperceptive mind-blindness." I am unable to find here any evidence of the disorder which he terms "associative mind-blindness," in the narrower sense. The nature of this is indicated by the illustration which he gives. "When we look at a violin, we recall its name, the sound of the instrument

when played, the sensations of touch and of muscular sense experienced on handling it, and the mental picture of a violinist's characteristic attitude. Not until such images are associated with the visual perception of the violin can we comprehend the object as a musical instrument, or distinguish it from other instruments. If this association is pathologically disturbed, the visual image of the instrument may be sharply perceived in all its details, but, as the perception is not united to older experiences, there can be no recognition: there is an associative mind-blindness."

It will be noticed that the associations which Lissauer is contemplating here are mainly of a remote order, not visual. But there is another class of associations, standing in closer relationship to the visual impression, and of great importance in spacial perception. I may illustrate these by a consideration of what happens when we look at a simple outline perspective drawing of a cube, in which all the twelve edges are shown, as if the cube were transparent or composed only of a wire framework. The visual impression from the drawing gives nothing more than twelve straight lines in a plane. But that is not how it appeals to an ordinary observer. He at once reads into it, by a process of association, the notion of a solid figure. He finds, moreover, that the drawing may represent either of *two* such figures, the edge or angle which is nearest in one being furthest in the other. He can mentally flap the figure backwards and forwards at will, the angle in question being regarded now as salient, now as re-entrant.

The perception of most visual forms, whether of material objects or of their pictorial representations, involves simple visual associations of this type, the commonest exception being in the case of letters of the alphabet and other abstract designs and ornaments. Storch has pointed out⁽⁵⁾ that many of the errors of Lissauer's patient, which were regarded by Lissauer as evidences of associative mind-blindness of the remote order indicated above, were more probably due to a defect of this simpler type of genuinely visual association (termed, by Wundt, "assimilation").

In my case there appeared to be a slight degree of the same defect, indicated best by means of outline drawings of single objects (*cf.*, *e. g.*, the pianoforte), and possibly also in what I have described as deficient sense of perspective. Yet I am

by no means satisfied that these errors also are not traceable to imperfect apprehension of the data actually given in the visual impression itself. Tests with whole scenes in outline, such as are produced in the weekly comic papers, revealed errors not distinguishable from those with ordinary shaded engravings.

It may be thought that the fact that errors were more numerous with pictures than with material objects indicates in itself an assimilative defect. But the matter is not so simple. The conditions of the two tests are widely different. In examining with material objects each object is displayed singly and entire : it can be regarded from various points of view, and readily differentiated from its surroundings : great help is afforded by stereoscopic binocular vision : the colours of the object, its surface qualities, and the changing effects of light and shade, to say nothing of the fact that it is seen at its absolute size, are of great assistance. The material object affords many data which are not of a spacial character at all : a piece of coal is recognised by its colour and lustre, not by its size or shape.

In my patient's interpretation of pictures there is a noteworthy absence of illusions determined by flight of ideas (*ideenflüchtigen Illusionen*). Such illusions are not uncommon in Korsakow's disease, especially in the early stage. The following are good examples. When I showed one of my patients a picture of the Princess of Wales presenting colours to a Highland regiment, she thought it was a wedding, the nearest Highlander being a bridesmaid, and his bayonet the church steeple : a picture of some sportsmen shooting game was thought to represent an execution by hanging, a pine-tree being the gallows and a gun-barrel the rope. In each instance we see a coherent complex of illusions, determined by flight of ideas, and finding but the slenderest basis in the data actually given. But in my present case there is nothing of this kind. When the mug in the Venetian scene suggests an ale-house, the patient does not go on to visualise other paraphernalia of an ale-house into the picture. Many of her illusions (if we are to call them illusions) had a recognisable foundation : the ladder, the spoon, the barrel, and others, were suggested by dispositions of light and shade which bore some degree of resemblance to those objects.

It was also noticeable that, in her interpretation of what she saw, the patient showed a marked hesitation and doubt, a want of conviction which stood in evident relation to her subjective difficulty of vision. This difficulty is strictly comparable with that experienced by mind-blind patients generally, who have in many instances complained that things looked misty and blurred, when their visual acuity was in fact good. The subjective experience of such patients must be so entirely strange as to elude description. They can no more tell us how things look to them than we can explain colours to one born blind.

The mind-blindness in this case is a general partial mind-blindness, due to some elementary disorder of perception. There is no evidence of any loss of visual memory-images, except possibly such loss as may form part of the retrograde amnesia ; memory-images acquired during the period to which the amnesia relates may have been lost, but this there was no means of verifying. There is no evidence of loss of any particular category of memory-images ; the mistakes as to identity of persons do not necessarily indicate a loss of memory-images of faces, but may be otherwise explained, as we have seen.

It is customary, especially in text-books, to distinguish rather sharply two main classes of mind-blindness: (1) word- and letter-blindness, and (2) object-blindness. Whilst in some cases symptoms of the first class predominate, and in others symptoms of the second class, we have only to read the reports of such cases as have been carefully investigated to assure ourselves that even the purest examples are generally of a mixed type ; the distinction is largely artificial. According to Wilbrand's hypothesis, now almost obsolete, the memory-images of objects of vision are stored in groups, after their kind, in separate areas or centres in the posterior part of the cerebrum ; a lesion limited to one of these areas will destroy the memory images of a limited class of visual objects. This hypothesis was doomed from the day when Lissauer published his famous case, and it has since been demolished by the careful work of Sachs and others of the Breslau school. It is now generally agreed that if the blindness in a given instance affects particularly some special class of images, this is because certain general principles apply with special force to these images, by reason of the conditions under which they have been acquired or called into play, or under which the present impressions are received, or by reason of peculiarities

inherent in the particular class of objects. Careful examination will reveal the action of the same principles in a less degree in relation to other classes of objects.

These views, based upon the study of cases of focal lesion, are no less applicable to cases of insanity depending upon diffuse cerebral disorder. Just as we have learned from Wernicke that every mental disease, in so far as it manifests itself in perverted speech-utterances, is for us an example of transcortical aphasia, to be studied from similar standpoints and by similar methods to those adopted in other cases of aphasia, so we must apply analogous principles of investigation to the phenomena of disorientation and confusion, if we would see the order underlying the disorder, or know anything worth knowing of the symptomatology of these affections.

(¹) K. Bonhoeffer, "Die akuten Geisteskrankheiten der Gewohnheitstrinker," Jena, 1901, p. 125; see also p. 31.—(²) H. Lissauer, "Ein Fall von Seelenblindheit, nebst einem Beitrage zur Theorie derselben," *Archiv f. Psych.*, xxi, 1890, pp. 222-270.—(³) Heinrich Sachs, "Vorträge über Bau und Thätigkeit des Grosshirns und die Lehre von der Aphasie und Seelenblindheit," Breslau, 1893; see especially pp. 232-266.—(⁴) *Loc. cit.*, p. 23.—(⁵) E. Storch, "Zwei Fälle von reiner Alexie," *Monatsschr. f. Psych. u. Neurol.*, xiii, 1903, *Ergänzungsheft*, pp. 499-531.

Amentia and Dementia: A Clinico-Pathological Study.

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Introduction.

THE present division of this paper consists of a clinical description of those types of mental disease which are classed by the writer under the heading *Amentia*. Under this term he includes, from the standpoint of morbid anatomy, all cases of subnormal cerebral development, and from that of clinical symptomatology, all cases of subnormal, and hence frequently abnormal, mental manifestation. He thus uses the term *amentia* to connote in the widest sense *the mental condition of patients suffering from deficient neuronie development*.

In the first part of this paper, and also in earlier contributions, the writer has sufficiently elaborated the pathological basis on which he has found it necessary to group under one heading many types of mental disease which have hitherto been described as though they had nothing strictly in common; and he will therefore here content himself with the purely clinical aspect of the subject. It is, however, desirable to repeat that the cases to be referred to in this part of the paper agree, from the aspect of general histology, in possessing a subnormal development of the cortex cerebri which, except in the severer grades, is limited to the pyramidal or outer cell-layer of the cortex; and from that of morbid anatomy, in possessing an average brain-weight which is below that of the normal adult average, in association with normal cerebral membranes, vessels, and intracranial fluid. The whole group of cases therefore comes under the heading of Subnormal Cerebral Development.

After mature consideration and in spite of the various uses to which the term "amentia" has been put by different authors, the writer considered that it would better serve his purpose than would an entirely new word, as this would also have necessitated the introduction of a term in place of "dementia" to connote "the mental condition of patients who suffer from a permanent psychic disability due to neuronie degeneration following insufficient durability." He has therefore made use of these well-known words in a different manner from that

sanctioned by common usage, and trusts to avoid misinterpretation by the employment of careful definitions.

The group of cases under the heading "amentia" thus includes not only idiots and imbeciles, but also a large number of cases which possess a milder degree of cerebral underdevelopment and mental deficiency than the imbecile, and which form the connecting link between the mildest type of imbecile on the one hand and the ordinary "sane" individual of average intelligence on the other. This group of cases closes a recognised but hitherto unfilled gap between morbid and normal psychology, and makes it possible to reduce the subject of mental alienation into a coherent system, which on the one side of the normal includes all types possessing deficient neuronic development under the term "amentia," and on the other side all cases suffering from deficient neuronic durability with resulting degeneration under the term "dementia." The writer hopes that recognition of the fact that mental disease consists in essence of a large group of cases with varying degrees and types of cerebral degeneracy and of another larger group with varying degrees and types of cerebral dissolution will be of value at a time when, with the object of elucidating the etiology of insanity with a view to its prevention, even a bacterial origin of mental alienation is being seriously discussed. If the views expressed in the present paper deserve credence, future attempts to deal seriously with the incidence of mental disease will treat the subject, not as a branch of infectious disease or at least of toxæmia, but as the greatest of the degeneracies; and an endeavour will be made on the one hand to discover and to minimise the causes which lead to cerebral degeneracy, and on the other to diminish the "stress" (in the widest sense) to which actual degenerates are subjected, with the object of decreasing the degree and the frequency of cerebral dissolution.

In the experience of the writer cases of "amentia" possess "stigmata of degeneracy," *e.g.*, abnormalities of the skull, face, ears, palpebral fissures, teeth, palate, mammæ, hair, etc., more frequently and in greater severity than do normal individuals or even other types of mental disease. They more frequently have an heredity of mental alienation and, not uncommonly, two or more members of the same family may be found in the same institution. They are also the cases about whom, apart

from purely domestic reasons, the friends are never tired of instituting inquiries or expressing desires for their discharge ; and it is amongst the friends of these types that the major portion of "borderland" cases of mental disease are found. Finally many of the milder cases of amentia are in asylums because they are so unstable that they cannot be kept outside them for any lengthened period, rather than because they constantly exhibit abnormal psychic manifestations. In other words, apart from senile or pre-senile involution of the cortical neurones, or from neuronie degeneration due to primary and direct toxæmia of the cerebrum or to systemic diseases, *e.g.*, vascular lesions and emboli, carcinoma, the very rare cases of tuberculosis of the brain, etc., these cases remain in a stationary condition for an indefinite period and do not develop dementia. It may, perhaps, however, be worthy of note here that the lower grades of amentia, *e.g.*, many idiots and imbeciles, frequently develop senile involution at a relatively early age, *e.g.*, 30 to 40, and that the higher grades—for example, many cases with systematised delusions—frequently arrive at pre-senility by the time their stationary mental state has properly developed.

In the subdivisions of amentia which will be described later little or no attention is paid to two conditions which at first sight might appear to be of importance, namely, the age-incidence and the emotional tone of the general symptomatology.

The former, however, is so largely a question of environment, as the age of the first or of any later breakdown depends almost entirely on the general "stress" to which the neurones of the individual are subjected, that it practically comes under the category of accident. The patient, for example, may become unable to withstand the normal environment of sane individuals at the change from school life and acquisition to the earning of his living and the practice of his acquirements, or as the result of illegitimate pregnancy or of a normal non-septic parturition, or at the climacteric or pre-senile period as the result of sexual involution, or when retiring from business at the senile period of life and undergoing the consequent entire change in habits and responsibilities, etc. At any one or more of these or similar critical periods the degenerate may fail to respond to what should be a normal environment, and may show his or her previously latent mental deficiency. The mere age of break-

down has therefore been considered by the writer to be of slight importance in his classification of the types of amentia.

As regards the emotional tone of the general symptomatology manifested during a temporary or permanent breakdown, equally important reasons may be brought forward to show its slight importance from the point of view of classification. The emotional tone during mental alienation depends, however, not so much on the environment of the individual, as on his normal emotional tone. This may be seen from a study of the mental characteristics either of the patient or of his relatives. A natural tendency to look at things from the black side, for example, may end in simple melancholia, from which the patient awakens with a feeling as if he had been under a cloud and without any attempt on recovery to explain his temporary abnormal condition. In an environment of religious observances, however, such a patient may temporarily or permanently develop any variety of idea of personal unworthiness, which may crystallise eventually into a fixed delusion, as in the case of a patient who thought she had for her sins been changed by God into half a serpent or devil and half a human being, and who, to the best of her ability, acted up to her fancied transformation and seemed to glory in being such an abnormality as had never before been seen on the earth. Again, cases with a delusional state in which they are out of accord with their environment, but in whom a definite content of delusions has not yet developed, are suspicious, solitary, and often depressed, till they by accident of environment develop this, and then the depression disappears and may be followed by excitement or exaltation. In cases, again, of simple emotional instability, recurrent attacks of excitement with secondary depression may occur, and the positive and negative phases may bear any time relationship to each other or to the lucid interval. Examples of variation of emotional tone might be multiplied, but the above will probably suffice to explain the writer's omission of emotional tone as an important factor in classification.

Before proceeding to classify and describe the different varieties of amentia, one other matter requires reference, namely, the accidentally aberrant symptomatology which occurs in many cases where the breakdown is precipitated by the direct action of toxines, especially alcohol and those of puerperal sepsis. Such cases may, by the family and personal history

and by their general physical and mental characteristics, be typical examples of high-grade amentia, but they may on admission show such marked mental confusion that the general symptom-complex is quite altered, and in some cases they may eventually develop a certain amount of dementia. Usually, however, the mental confusion entirely clears up in a few weeks or months, and the early aberrant symptomatology bear a similar relationship to the later mental condition, as do the symptoms of an attack of bronchopneumonia following a chill in a previously healthy individual to those occurring during an attack of chronic pulmonary tuberculosis which has been precipitated by the bronchopneumonia. Nevertheless, in not a few cases an aberrant symptomatology may at first cause temporary difficulty in diagnosis, though the further progress of the case after the "acute" symptoms have subsided, together with the family and personal history, as a rule readily enables the diagnosis to be made.

In the following description of the types of amentia the writer separates the group into two subdivisions—*low-grade aments*, or idiots and imbeciles; and *high-grade aments*, or cases in which the developmental deficiency is slighter, and which show evidence of abnormal psychic processes at or after puberty.

Low-grade amentia.—For the purposes of this paper it is unnecessary to endeavour to subdivide the group into primary and secondary types and to give examples of each individual variety of low-grade ament, as these are already fully described in many important original publications. The author has, therefore, grouped his cases into those without and those with epilepsy, and has further subdivided each of these into classes showing extreme, moderate, and slight mental deficiency respectively. Though this classification is not a scientific one, it nevertheless affords a practical basis on which the author can briefly and from the purely clinical aspect refer to this group of cases, which is only included in the paper owing to its direct relationship to the following group and in order that he may more satisfactorily deal with the main subject under discussion.

High-grade amentia.—In this group are inserted several types of mental disease, the inclusion of which the author hopes to justify in the appropriate place, namely, under the respective descriptions of the different types. It contains many cases which are usually classified as "chronic mania" or "chronic

melancholia," but which, as will be seen later, exhibit developmental deficiencies, which show themselves under the form of general mental or moral instability or perversion on the one hand or under that of curious and abnormal mental function on the other. It also includes recurrent cases of mental disease, whether these are still subject to periodic relapses and are temporarily under treatment, or are permanently certified. Further classes in the group contain cases of hysteria and of true epileptic insanity. Finally, the writer has inserted cases of insanity with systematised delusions (including paranoia) and he believes and hopes to demonstrate that these also are developmental in origin and should be described amongst the highest types of amentia.

As has already been stated, the common physical feature of these various cases is a more or less marked under-development of the cerebrum associated with the absence of intra-cranial morbid appearances, and the common psychic feature is the entire, or almost entire, absence of dementia, unless this occurs as the result of senile or pre-senile involution of the cortical neurones, or in a small proportion of cases as the result of neuronic degeneration following excessive primary and direct toxæmia of the cerebrum. In other words, apart from senility or direct injury to the cortical neurones, their durability in the class of cases under consideration is sufficient to resist dissolution and dementia, although the readiness with which abnormal psychic manifestations develop, under what should be a normal environment, requires their possessors to be periodically or permanently placed under asylum treatment. Reference will later be made in Part III to those cases of high-grade amentia which eventually develop dementia, and they therefore need not be further considered at present.

The cases which will be made use of for illustrative purposes in the following description are selected from a consecutive series of 728 chronic and recurrent lunatics who were admitted into the East Sussex County Asylum, Hellingly, during the first seven months after the opening of the asylum. They were practically all transfers from other asylums, and all were chargeable to the different unions of East Sussex. The descriptions are all derived from personal notes made by the writer after admission of the patients and from personal study of the cases during their residence in the asylum, and therefore, as far as

possible, any error due to personal equation is constant throughout the series.

Of the 728 cases, 283 are examples of amentia without any complicating dementia, all cases showing dementia being included under the remaining 445, which will be made use of in Part III under the description of "Dementia."

The 283 cases of pure amentia have been classified as follows :

AMENTIA.

	Males.	Females.	Total.
I. <i>Idiocy and Imbecility</i> (primary and secondary)	51	43	94
(a) Extreme	13	8	21
(b) Moderate	15	8	23
(c) Slight	7	8	15
(d) Extreme, with epilepsy	6	9	15
(e) Moderate, "	8	9	17
(f) Slight, "	2	1	3
II. <i>Excited and "Moral" cases</i>	22	64	86
(a) "Moral" cases	5	9	14
(b) Simple emotional chronic mania	4	32	36
(c) Chronic mania with incoherence and delusions	6	13	19
(d) "Cranks" and asylum curiosities	7	10	17
III. <i>Recurrent cases</i>	17	30	47
(a) Relapsing	6	13	19
(b) Now chronic	11	17	28
IV. <i>Hysteria</i>	—	6	6
V. <i>Epileptic Insanity</i>	6	18	24
(a) Epileptic mania	2	5	7
(b) High-grade amentia with epileptic mania	4	11	15
(c) Mild imbecility with epileptic mania	—	1	1
(d) Epileptic mania with mild senile dementia	—	1	1
VI. <i>Cases with systematised delusions (including paranoia)</i>	10	16	26
Total amentia	106	177	283

GROUP I.

LOW-GRADE AMENTIA.

Idiocy and Imbecility (primary and secondary).

	Males.	Females.	Total.
(a) Extreme	13	8	21
(b) Moderate	15	8	23
(c) Slight	7	8	15
(d) Extreme, with epilepsy	6	9	15
(e) Moderate, „	8	9	17
(f) Slight, „	2	1	3
Total	51	43	94

This group includes 94 idiots and imbeciles of various types, and, as is usual, the males preponderate over the females in number, excepting in the cases where the mental deficiency is associated with epilepsy.

The cases have been divided, as a practical working basis, into those without and those with epilepsy, and each of these classes has been further subdivided, according to the degree of mental deficiency, into extreme, moderate, and slight grades.

Though from a purely pathological standpoint this grouping of cases possesses the obvious disadvantage of classing together indiscriminately cases of primary and secondary low-grade amentia, it nevertheless has a practical basis in that the cases are arranged according to mental capacity. It also avoids what, for the present purpose of the writer, would be a still greater disadvantage, namely, the errors which would necessarily arise in the absence of a complete series of *post-mortem* examinations, for experience shows that an examination of the cerebrum is necessary in many cases before a correct pathological diagnosis is possible. Further, the life history of many of the severer types of low-grade amentia is peculiar in the facts that childhood or cerebral immaturity is relatively prolonged, that adult life is short, and that senility rapidly ensues on the latter, the whole cycle perhaps lasting thirty to forty years only.

As the result of these several considerations the writer has decided that, in a paper dealing with the subject from the stand-

point of morbid psychology, a classification based on relative degrees of mental deficiency would best serve his purpose.

Class (a).

Cases showing Extreme Mental Deficiency.

This class contains 21 cases, of whom 13 are males and 8 are females, and includes examples of most of the common types of idiot. A few of the cases show slight signs of intelligence, but none of them are able to work or to do anything for themselves. All have shown symptoms since birth or infancy, and 2 males suffer from paralytic lesions. Nos. 2 and 8 are inserted as illustrative examples. The former is a well-marked case of cerebral immaturity, and the latter is one of microcephalic idiocy.

CASE 2.—F. L—, male, single, æt. 14. Symptoms from birth.

A restless idiot child, who looks like a very big infant of 2 to 3 years. He lies curled up in bed with his neck extended. He works his lips, makes faces, shows his teeth, breathes heavily, and wriggles his hands and legs. His legs are extended, with the left crossed over the right, and his arms are flexed. One of his common positions is an over-extension of the back with the right side of the pelvis, the upper dorsal region, and the head on the bed. He wriggles constantly in an involuntary manner and the movements of the hands and arms are practically purposeless. He tends to over-pronate the left hand, with the left arm straight and behind the back, and to keep the right arm tightly flexed at the elbow whilst the right hand wriggles about over the right clavicle and the front of the chest. When his position is altered he gradually wriggles back into the usual one without appearing to do this purposely. When two fingers are placed in his palm he partially grasps them, but does not use his thumb and index fingers properly, and this especially applies to the distal phalanges.

He appears to recognise certain people who notice him, and shows this by an extra amount of wriggling. If asked for a kiss he appears to try to give one. He is ravenous over food and takes it like a baby. He is wet and dirty in his habits, and absolutely helpless.

CASE 8.—C. H. A—, male, single, æt. 23. Certified at the age of 11.

A microcephalic idiot with an enormous mouth which, when opened, occupies a large part of his face. Teeth separated by large gaps. Beard slight. He at times carries out antero-posterior rocking movements, and also occasional spasmodic or rapidly athetotic rubbing movements of the thumb on the fingers of one or other hand, and often of both together. He walks with his legs splayed out and appears to drag the left leg rather more than the right. His power of attention is slight but present. He feeds himself and does as he is told if it be

simple actions, such as getting up or sitting down, etc. He cannot dress himself, and is wet and dirty in his habits.

Class (b).

Cases showing Moderate Mental Deficiency.

This class includes 23 cases, of whom 15 are males and 8 are females. All the cases show moderate signs of intelligence and possess a certain power of imitation, and some can write a little. In every instance symptoms have existed since birth or infancy. Of the 15 males, 3 are unable to work, 1 does a little work, 6 are ordinary workers, and 5 work fairly well. Of the 8 females, 4 do a little work, 3 are ordinary workers, and 1 works fairly well. Two of the males, Nos. 33 and 34, are brothers; and two of the females, Nos. 38 and 39, are sisters; and these four cases are inserted as illustrative examples. Though neither the brothers nor the sisters are twins, they resemble one another in both appearance and mental capacity, and did space permit, these cases would be worthy of a more lengthy description.

CASE 33.—F. M—, male, single, æt. 36. Certified at the age of 16, the brother of Case 34.

A dull-looking imbecile with an open mouth, projecting ears, and a marked internal squint, chiefly of the left eye. His name is "Frederick M—." He does not know his age and cannot write his name. He cannot count fingers. He smiles vacuously when addressed. He has very little power of imitation of simple movements. He seems to use his left hand more than his right. He dresses himself, and does a fair amount of floor-polishing and ordinary manual work, and is clean in his habits.

CASE 34.—G. M—, male, single, æt. 34. Certified at the age of 14, the brother of Case 33.

A similar degenerate to his brother, and with difficulty distinguishable from him unless the two are together. The squint in his case is chiefly internal and of the right eye, and his general appearance is somewhat less markedly degenerate than is that of his brother. When given a pencil he makes some irregular lines which on examination are found to be a feeble imitation of my writing just above. This power of imitation is greater than is possessed by F—and agrees with his appearance. He does not reply to questions, but does as he is told. He grins like a monkey when asked to squeeze hands, and does not do it. He seems to use both his hands equally. There is little or no difference between the two brothers in their general habits and their capacity for work.

CASE 38.—M. T—, female, single, no occupation, æt. 54. Certified four years ago. Sister in the asylum, Case 39.

Hair dark and tinged with grey. Forehead large and prominent. Eyes small, dark hazel, bright. Mouth large. Small moustache. Palate rather above normal depth. Teeth nearly all absent.

A childish-looking woman who laughs in a silly and vacuous manner. At first cannot be got to make a single intelligible remark, and smiles inanely to every question. Eventually says she is "Lady Queen—" and smiles; later says, on pressing, that her name is M. T— and adds that her sister is named E— and her brother H—. Then says she lived three years at H. H—. Articulation imperfect and indistinct. Continues to smile and speaks a few imperfectly articulated words about "T—" (her name) and "Lady—." Possesses a small case of needles and pins and cotton, and also a piece of rag containing a shilling and a pencil.

Emotional and prone to weep like a child when she cannot get her own way. At times loses her temper and may, *e.g.*, throw scissors across the room, but soon recovers. Can make shirts and do plain sewing well, and is industrious, though slow. Fond of her sister and likes to see the latter taken notice of.

CASE 39.—E. T—, female, single, no occupation, æt. 52. Certified three years ago. Sister in the asylum, Case 38.

Much resembles her sister, the preceding case, but her hair is more grey, and her eyes are greyish hazel. Forehead rather less prominent. Palate very flat. Teeth nearly all absent.

Has a pleasant childish smile. Chatters away in a partially articulate manner, and apparently almost senselessly. Gives her name. Says she has a sister called M— and a brother called H—. Was at H. H— seven years (incorrect). Very childish and emotional and at times chatters freely about her family, etc., but what she says cannot be clearly made out. Is much more lively and chatty than her sister. Possesses a small handkerchief and says she can hem neatly (the handkerchief is certainly well hemmed). Has, however, neither needles, pins, nor case.

Lively and garrulous. Makes motions when anyone comes into the room to attract their attention. Likes to be taken notice of and if her sister is in the room draws attention to her. Is excitable and at times quite noisy, and rarely weeps. More childish than her sister. Can use a needle, but is no use whatever at sewing.

Class (c).

Cases showing Slight Mental Deficiency.

This class includes 15 cases, of whom 7 are males and 8 are females. All the cases possess considerable intelligence, but are distinctly feeble-minded. Of the 7 males, 5 are fairly good workers, 1 is an ordinary worker, and one, a very troublesome patient of filthy and disgusting habits, refuses to work. Of the 8 females, 1, suffering from advanced phthisis, is unable to work; 1, who is violent, spiteful, and of filthy and depraved habits, refuses to work; 1 is of no use as a worker; 3 are ordinary

workers; and the remaining 2 are fairly good workers. There is nothing worthy of especial note in the class taken as a whole, and the two cases cited are fair average examples.

CASE 51.—G. D—, male, single, æt. 49. Certified since the age of 33. Labourer.

A dull-looking man with a very narrow forehead and large ears, the pinnæ of which are deficient. He gives his name and spells it for me, and also gives his correct age. He speaks in a gruff voice and with a stammer. He knows when he came and the present day, and where he came from and where he is. He was at his last asylum 11 to 12 years (actually 16). He did farm-work there and got three half-ounces of tobacco a week. He says he earned his living from the age of 11 or 12 years. I ask him to write his name, and he takes the pencil in his left hand and writes as follows :



It was only when I noticed the last letter that I found he was writing mirror-writing. I could not get him to take the pencil in his right hand, and he told me he is left-handed in everything but can use his right hand. The dark lines on the above are where he licked the copying ink pencil preparatory to using it. He can read moderately well. I asked him a question about fits, and he became most indignant and violently denied ever having suffered from them. He is very feeble-minded and childish, but is quite sensible and gives a fair account of himself. He attends to himself and keeps himself tidy and is a useful worker.

CASE 54.—E. K—, female, single, no occupation, æt. 33. Certified four years.

A vacant-looking woman who is obviously feeble-minded. Her face somehow suggests that of a sucking-pig or a fish. Outer canthi turn slightly upwards. No lobules to ears. Cranium very small. Mouth prominent. Chin receding.

Her age is "nearly fifty last July." She speaks with a lisp. Asked where she has come from, says she has "worked up in his house where I come from." Says she has earned her living as a nursemaid. "This makes two that I've been in." Does not recognise the name of the asylum from which she has come, but the name evidently suggests something to her as she then says, apparently *apropos* of what has already transpired, that she "worked in the kitchen there up where the ladies are." Cannot read or write, and went to Christ Church school without learning either. Is fairly useful as a worker, in fetching and carrying and general cleaning, but is very slow and of low intelligence.

*Class (d).**Cases showing Extreme Mental Deficiency in Association with Epilepsy.*

This class contains 15 cases, of whom 6 are males and 9 are females. Two of the males and two of the females suffer from paralytic lesions. Several of the cases, especially the females, show slight signs of intelligence, but, except in the case of one female who commenced fits at the age of 6 months and does a little simple work, none of the patients are able either to work or to do anything for themselves. One male and one female suffered from adenoma sebaceum. The latter died of status epilepticus, and neurogliosis of the brain and new growths of the kidneys were found at the *post-mortem* examination. Of the two cases cited, the former is an epileptic idiot, æt. 44, and the sister of Case 168, and the latter is a case of cerebral immaturity, æt. 7 years.

CASE 67.—E. S—, female, æt. 44. Brother in the asylum, Case 168.

Face and head very large. Nose very broad, especially at the lower ends of the nasal bones. Large mouth, with marked philtrum. Small beard on chin. Palate extremely high, of medium width and shelves forwards. Congenital deformity of both elbows.

At first takes no notice of me, and then suddenly bursts out laughing and grotesquely imitates any movements I happen to perform, at the same time making inarticulate sounds of amusement. When I attempt to test her counting power by holding up fingers she at once begins to imitate me and then begins monkey tricks and gets quite uproarious. Is bad-tempered and petted and tries to cry if spoken to sharply but soon recovers and laughs. "Yes" and "No," as "Yeah" and "Noah," are the only words of her gibberish which can be understood.

Dresses and washes herself and does her hair. Is, as a whole, quiet and obedient but objects to having a bath and screams afterwards. Readily becomes boisterous and often strikes me in play to attract my attention. Is quite unable to perform useful work, but at times tries to rub or dust when told. Occasionally suffers from very mild attacks of *petit mal* with, on one occasion, an abortive convulsion.

CASE 73.—D. N—, female, æt. 7. Certified 3 years ago.

A little child who rubs her eyes or puts her hands to her head when spoken to, and looks and acts like an infant æt. 2. At times hums "Dolly Gray" "Jesus loves me" or "Home, sweet home" with an excellent idea of time, and occasionally puts in one or two of the words. Sometimes she pinches and scratches as she sings, and she pinches quite savagely when she sings loudly. The singing sounds extremely like a gramophone, and she at times stops suddenly in

the middle as if the record were finished. Has no habit movements, takes no notice when spoken to, and shows no evidence of a capacity for imitation apart from her singing. Can eat bread and butter or biscuit, but has no idea of feeding herself with a spoon. Cannot do anything for herself and is wet and dirty in habits. Is stated not to have had an epileptic fit for four years.

Class (e).

Cases showing Moderate Mental Deficiency in Association with Epilepsy.

This class includes 17 cases, of whom 8 are males and 9 are females. All the cases show a moderate amount of intelligence and possess powers of imitation, in some instances to a considerable degree. Some can write a little and others have learned the rudiments of arithmetic. Seven of the males are unable to work, and one is a fairly good worker. Of the females, 8 are unable to work, and one does a little work. Two of the males and one of the females suffer from paralytic lesions. Of the two cases cited, the male suffers from a paralytic lesion, and the female is an ordinary epileptic imbecile of low intelligence.

CASE 75.—E. G. B—, male, single, æt. 24, certified at the age of 19; epileptic fits from 10 months old, and paralysed since the age of 6 years (?).

A vacuous-looking imbecile with a very prominent malar region and a receding forehead and chin. He stares at me, as I am writing, in a sleepy way, but soon looks elsewhere. He has a left-sided, (?) birth palsy, and the right side of the head is smaller than the left. He gives his name in a slow but strong voice, and says his age is 18 or 19. He is rather deaf. He "can read a little and can write a copy," but cannot demonstrate either capacity. He has never been to school, but has been taught at home by his aunts. He has some slight knowledge of arithmetic, *e. g.*, $2 \times 3 = 6$; $4 \times 5 = 20$; $9 \times 7 = ?$; $5 \times 7 = 35$; $6 \times 7 = 42$; $7 \times 7 = ?$; $5 + 11 = "35, I think"$; $2 + 3 = 5$; $5 \times 7 = 35$; $7 + 5 = 12$; $5 + 7 = 35$; $9 + 2 = 11$. These figures appear to show memory rather than understanding. He cannot correctly imitate simple movements, such as putting his hand over the opposite ear. He suddenly a moment or two later said, "Some one talks about me," "My aunts," "I don't know what they say about me," "I'm always happy." This puzzled me at first till I found that his right ear was burning owing to his holding it, and he explained to me then that when the ear burns someone is talking about one.

He can help to dress himself with his sound arm, he does as he is told, and he asks when he wishes to go to the lavatory. He does no work.

CASE 90.—A. P—, female, single, no occupation, æt. 37. Certified 14 years ago, but had then suffered from fits and shown symptoms for many years.

A spiteful-looking woman with a contemptuous look on her face. Jerks her head away and says, "What for?" when I want her to open her mouth. Jerks out her name abruptly when asked. "Don't know" her age. "Mother would know, wouldn't she? She goes out seven in the morning to eight at night. They work hard, don't they? They should let me go to see them and learn how to iron. Mother would know my age, wouldn't she? Should like to go home to get two penny-worth of castor oil with peppermint to take. Would make me leave the room better, wouldn't it? Has made me so sore the other way, hasn't it? A big sore there, isn't there?" All this is rapidly and voluntarily spoken just as if she were repeating a lesson in a monotone. Then she says she "wants to go home to see father. He goes out and rides with ladies and gentlemen. Pleased to see me, wouldn't he? And see my brothers the soldiers. They might have a holiday, mightn't they? Should let me go home, shouldn't she? Could know the way and come back in the train, couldn't we?" Asked about her fits says they "come on bad sometimes. Never know when they're coming on. Make me fall on the floor and they get me something to lie on. I want to lie down a bit then, don't I?"

She fairly frequently (once or more a week) has very severe fits indeed. She screws and twists about in them and is severely convulsed in every part of her body. She is on the whole confused for about an hour after a fit. She at times laughs and talks to herself, and especially so before a fit. She is not spiteful but constantly grumbles. She has no friends amongst the patients. She does nothing except dress herself. At times she asks for work and occasionally does a little plain hemming, but otherwise she is quite useless.

Class (f).

Cases showing Slight Mental Deficiency in Association with Epilepsy.

This class includes 3 mild imbeciles of whom two are males and one is a female. These cases differ from many of those included in Group V (epileptic insanity) solely in the existence of such a degree of feeble-mindedness as is sufficient to class them as imbeciles. Both the males are fairly good workers, and the female, who died of status epilepticus, was an ordinary worker when not suffering from many fits.

CASE 92.—H. T—, male, single, æt. 30. Certified at the age of 20. Fits since the age of 14.

A dull-looking man of an unpleasant and even criminal appearance. He is very slow and hesitating in his speech, but asks me how I am, and gives his name. Says he was told at the other asylum that he was æt. 33, and was there ten or eleven years. He came here a week ago (5 days). He knows the date within 3 days, but does not know the day of the week, "but I can say the days through the

week, sir," and repeats them from Monday onwards. He knows the multiplication table fairly well. $3 \times 4 = 12$; $7 \times 6 = 42$; $9 \times 8 = 102$; $12 \times 12 = 144$. He writes his name readily and fairly well. He says that he does not have many fits. He cannot say when he first had them, but his "mother was at home and could tell me." His father was a furniture dealer and he worked with him. He says I knew him at Ivy Place, and he thinks that I am a friend or son of a Mr. Saunders. It is six months since he had his last fit. He can tell by his "head being funny" that he has had one. They told him at the other asylum that he had only had three fits in ten years, and "I don't know as I had them." He still remembers the questions on arithmetic, for as I am leaving him he says that he can now "say the 12's time table from twice one are two to twelve 12's, as I've been to school, sir." He can attend to himself and to his own wants, and is a good worker.

CASE 94.—P. F—, female, single, hawker, æt. 24. Certified four years.

A vacuous but pleasant-looking girl, who says she has a lot of fits, and "when I first had 'em a man frightened me. He dressed himself in white. He picked some wood in a pinafore, and give me some beer and some bread and cheese. That was at Crober, and there was a club there—and the next day I had fits." "I've had fits all my lifetime." "When it comes on me, sir, I hollers to the nurses. I can't help it, sir. It seems as though there's a man coming to me. I says, 'Oh, nurse, there a man coming after me,' and I can't help it." "He was a nasty man. He dressed himself in white."

She is "in a house now." Came the day before yesterday (correct) "from the other ward" (asylum). "We come in a train, sir." Doesn't know either day or month. Thinks it might be winter (September) "because it is cold." "I think it's better here, sir, than it was in the other ward." Never went to school and cannot write. Says 4 fingers are 5, and then 4 are 3. *Apropos* of this she volunteered the information that she has a little sister at home with six fingers on one hand.

She was at intervals, sometimes for days at a time, after fits, most violent, impulsive, and quarrelsome, but as a rule was good-tempered and well-behaved, and a willing and useful worker. She died of status epilepticus.

HIGH-GRADE AMENTIA.

GROUP II.

EXCITED AND "MORAL" CASES.

	Males.	Females.	Total.
(a) "Moral"	5	9	14
(b) Simple emotional chronic mania	4	32	36
(c) Chronic mania, with incoherence and delusions	6	13	19
(d) "Cranks" and asylum curiosities	7	10	17
Total	22	64	86

In this, the lowest type of high-grade amentia, the cases vary in characteristics from, on the one hand, what is little better than mild imbecility to, on the other hand, the most grotesque and interesting examples of asylum inhabitant. Three fourths of the cases are of the female sex, and the great majority are, for obvious reasons, unmarried. Many of them show more or less marked stigmata of degeneracy, and quite a number of the females possess a left infra-mammary hysterogenic zone, which is often almost as hyperæsthetic as is the left ovarian zone in hysteria.

A common characteristic of the class is the absence of dementia, at any rate till the pre-senile or senile period of life. These cases are usually vain and egotistical, and take strong likes and dislikes, which are frequently intense and uncontrollable. They may be easy to get on with, and are in many instances good workers, but they are erratic, unstable, and eccentric, and are at times extremely violent and dangerous.

Although the cases belong to one defined group, this may, on the whole, be readily subdivided into four classes, which show the following prominent characteristics:

(a) *Alteration of moral sense*, with a tendency to do desperate things, e.g., to commit suicide or even homicide, to perform acts of self-injury or self-mutilation, to strike, smash, or destroy, to intensely irritate those around them, to be sexually inclined in a normal or abnormal manner, etc.

(b) *Alteration of emotional and intellectual control*, e.g., exuberance, instability, garrulity, childishness, and often violence, treachery, and destructiveness.

(c) *Rapid and uncontrolled association of ideas*, with delusions of grandeur, which may or may not co-exist with or follow delusions of persecution; and

(d) *Stereotyped, symbolical, or grotesque association of ideas*, which leads to weird actions and eccentric general behaviour.

There is no clearly-defined age of onset, as accident of environment is largely responsible for the time at which asylum treatment becomes a necessity. The frequent heredity of mental disease, and the resemblance between the behaviour of the patients and that of their "sane" relatives, together with the personal history and physical conformation of the individual case, as a rule readily demonstrate that the patient is born a

degenerate, although such obvious evidence as necessitates an asylum *régime* may be more or less delayed.

An interesting example of this type of degeneracy is afforded by a family of which no less than four members—two brothers and two sisters—are at present patients in the County Asylum, Rainhill. The family originally consisted of six members, of whom the oldest was lost at sea, and the fourth appears to have died, when a young adult, of intestinal tuberculosis. The remaining four went insane from the youngest upwards at the respective ages of approximately 23, 30, 33, and 46 years. All four cases show the more marked characteristics of this group of cases, being grandiose, eccentric, and erratic, and all but the oldest are grotesquely vain, self-opinionated, and sexual. The youngest is a good worker, but has gradually become dull and commonplace, though she is still fond of finery and extremely vain. She appears to have developed a mild degree of premature dementia. The next member is a typical example of class (*d*). He is grandiose, eccentric, abrupt, and shows a most weird association of ideas, with a marked tendency to symbolism. The next member is a good example of class (*b*), being grandiose, garrulous, very erratic, silly and childish, very fond of finery, extremely vain, and too much the fine lady to work. The oldest member, who is married and has a family, is grandiose, solitary, and eccentric, suffers from marked hallucinations of hearing and delusions of persecution, and is apparently developing pre-senile dementia. This series of cases shows in a striking manner both similarity of family type and an increasing degree of degeneracy to a maximum in the youngest member of the family, and it affords an illustration of the life history of mental disease from the aspects of both degeneracy and dissolution.

Group II.—Class (a).

Cases of a "Moral" Type.

This class contains 14 cases, of whom 5 are males and 9 are females.

The cases are of many types but possess the common characteristic of an abnormal moral sense. Some resemble silly children in being emotional, erratic, and inconsequent in speech. They are fond of decorating themselves with trifles, are most

troublesome and mischievous, and are constantly misbehaving themselves and playing "monkey tricks." Others are excitable, petted, and passionate, and at times even homicidal. They, however, often work well, and are readily managed by kindness and tact. Even when in strong clothes in a padded room such patients may become tractable at once if, for example, they are allowed to search one's pockets, play with one's watch and chain, etc., and are generally treated like spoiled children. Others, again, are readily managed by men, but are spiteful, violent, treacherous, and resistive with women. They cause all the trouble they can, throw things about, and destroy or smash out of pure wantonness. Others, finally, are emotional, unstable, and suicidal. They try numerous methods of self-injury and self-mutilation. They put pins and needles into their arms, legs, breasts, abdomen, ears, nose, etc., or swallow them. They mutilate themselves with glass, knives, scissors, or anything available. They endeavour to strangle, choke, or hang themselves, or to injure their heads or limbs by striking them against walls or furniture. They often do these things in an impulsive way, if upset by not being allowed to do as they wish, or out of pure mischief, or frequently in order to get nurses or attendants into trouble. They often, however, really intend to commit suicide, and in any case the result may, whether from intention or accident, be fatal.

Several of the 14 cases in this class are good workers. Of the 5 males, 3 are usually good workers, 1 does a little work at times, and 1 refuses to work and is a marked degenerate who is excitable, abusive, and often violent. Of the 9 females, 2 are as a rule ordinary workers and 1 at times can be got to do a little work; of the remaining 6, 3 are troublesome suicidal cases, and 3 constantly refuse to do any work at all. The two cases cited are average examples of the class.

CASE 101.—C. P—, female, single, servant, æt. 43. Certified 19 years.

A healthy-looking brunette, who appears to be much younger than her stated age. She informs me that she is very excitable, and soon gets upset. She says she has tried to take poison, has cut her throat, has tied a string round her neck, etc. A month ago she snatched a nurse's scissors and tried to dig them into her throat, but during the struggle accidentally cut the nurse's finger, and she is indignant at having been blamed for this. She is tired of her life, as there is nothing to live for in an asylum.

She has no inclination to smash. She does not hear voices. She does not "tend to retaliate or turn on nurses or patients, as I find it upsets my liver, and makes me bilious."

She laughs and hides her face with her hair, and behaves in a very coy sort of way when any suggestion of sexual ideas is made, and evidently suffers from these.

She has done "scrubbing and helping in the infirmary, and laying patients out and seeing 'em die too!" She often has bilious attacks, and she says that talking to me will make her bilious. She states that since a fall she at times passes blood *per rectum*, and that she menstruates once a fortnight.

She first went to an asylum when about 17 or 18 years of age, and was there 3 months. Later she was in asylums for 12 years, 5 years, and 13 months. Her memory and knowledge of time and place appear normal.

On the whole she is a favourite, and is often for long periods well-behaved and a good worker, except for general laziness and hypochondriasis. She at times, however, is excited, emotional, and irritating in her behaviour, trying to worry the nurses by hiding herself, etc. She is vain, and fond of dressing herself up, and is often silly and childish in behaviour. If upset she readily threatens suicide, and tries to frighten the nurses by pretending to carry out the threats. If carefully watched she is liable to become desperate, and perhaps would do more than she intended, but if taken no notice of she gradually returns to her normal condition.

CASE 106.—C. P—, female, single, dressmaker, æt. 22. Certified 3 years.

A lively-looking girl of Jewish appearance who wants to see what I am writing and is never still a moment. She asks me why I don't "take that dirty rag off my finger and put a clean one on" (my finger is bandaged). She gives her name but when asked her age says "ten" and laughs. Then she tries to pull my beard and laughs and makes remarks about my teeth. She gets hold of my watch and chain and wants to see the former. She remarks, "Ain't you got funny green eyes!" She notices the buttons on my sleeve and then remarks, "I don't want to stay in this shop." She takes my pencil and pretends to write but makes a scrawl and then throws the pencil down and laughs, and then asks me to give her it again so that she can "draw another little picture." She is most monkey-like and inquisitive and altogether like a silly, forward, spoiled child.

She can be made to work at times by careful management. She can sew nicely, and can put on patches. She would be a very intelligent worker if she were rather more steady. If not looked after she pulls stockings, blanket bindings, etc., to pieces, and ties the wool round her hair to decorate herself, and makes bracelets, rings, etc., of it. She is fond of using a looking-glass, and will get on a chair to do so. She is very clean and can make her bed. She dresses herself but not tidily. She is very mischievous, but is quite harmless, and if managed tactfully is obedient and tractable.

*Group II.—Class (b).**Cases of Simple Emotional Chronic Mania.*

This class contains 36 cases, of whom 4 are males and 32 are females.

The chief characteristic of these cases is a lack of higher control, in the younger types over the emotions and in the older over the intellectual processes.

In many cases the abnormal mental state is one of simple instability. The patients are like silly, lively, unstable, and petted children, with an exuberance of spirits and a liability to act on impulse and to do *outré* things. They are passionate and wilful and at times are difficult to manage, but they are often pets and favourites. Intellectually they may be inconsequent in conversation almost to the stage of complete incoherence, and during attacks of excitement they present such a marked degree of hyperæsthesia of the special senses that they are credited with hallucinations, and at times probably suffer from these.

The more marked cases have an almost entire loss of control over their emotions and instincts, and are troublesome, spiteful, impulsive, treacherous, destructive, and often degraded and filthy in their habits. This type includes the very worst examples of refractory patient, some being like savage wild beasts, with few or no redeeming features, and it is this variety of case which, under prolonged sulphonal treatment, dies suddenly of hæmatoporphyriaemia.

Other patients are full-blooded, exuberant adults, who are constantly quarrelling with some one; or they are querulous, complaining, and irritating, and constitute the cases who, if at large, would drive their husbands to drink or to wife-beating.

Many of the older cases differ from the above in the fact that the loss of control affects chiefly their intellectual functions, and the result is a quite abnormal garrulity. Their association of ideas is normal, except for its extreme rapidity and complexity, and during conversation the illustrations of their meaning flow in such an overwhelming torrent that the listener can be excused for becoming bewildered and exhausted and doubting the coherence of their ideas. They talk continuously whenever a listener can be found and whether he be interested or not. They devour the contents of all the books and periodicals

available, and abstract and learn by heart apparently for the mere enjoyment of the exertion entailed. They are frequently very inconsequent, and show a marked tendency to parenthesis during their descriptions; and at times they return to the original subject after the listener has become quite confused and has forgotten all about it. One of the most marked examples of the type seen by the writer was a retired professor of natural science, whose mental state, except in general terms, it was practically impossible to obtain. The rapid but orderly association of his ideas, his extreme erudition, and the ease with which he could, in a relatively short period, cause exhaustion in cultivated listeners without the least effect on himself, were the most prominent features of his case. He was an excellent linguist, and did a large amount of translation for the writer from several languages, both extremely rapidly and absolutely correctly. One of the most interesting features of his case was his knowledge of insanity and his exact appreciation of his own mental condition. A similar example, Case 121, of the female sex, is inserted below.

Of the 36 cases in this class several were good workers. Of the 4 males, 3 worked well as a rule, and 1 constantly refused to work. Of the 32 females, 9 were good workers, 5 were ordinary workers, 2 did a little work, 9 refused to work at all, and the remaining 7 were dangerous and violent cases who were quite untrustworthy or entirely incapable.

CASE 109.—H. K—, male, married, cab-driver, æt. 60. Certified since the age of 47.

A lively and garrulous old man, with small bright eyes. His memory and intelligence are good. He gives me a long description of the different asylums he has previously been confined in, and refers to them in their correct sequence. From his account he seems in each place to have got on quite well for about a year, till the Superintendent deceived him by not letting him be discharged, and then he "had done with him," and got the sulks. At N— he got on much the best, but he unfortunately made a "little mistake." He was promised his discharge, but did not write to ask his friends to take him out when he was told to do so. In this instance he was to blame himself, but at the other asylums it was the Superintendent's fault that they did not get on properly. He did all kinds of work at N— and received for it 2 ounces of tobacco a week, lunch, and 3 half-pints of beer. This asylum had a brewery of its own. He asks me to speak up, as he is deaf and doesn't want to make any mistake. He has worked well in each asylum and even after he fell out with Dr. M—. He owns to alcoholic excess before being sent to his first asylum. When I ask him about delirium tremens he laughs in a most

shrewd and amused manner, and says he "won't tell me about that." Eventually, however, he tells me that he was a most reckless driver and was quite unmanageable when in drink. He is a useful and hard worker, chiefly in the ward kitchen. He is garrulous and short-tempered, and readily falls out with attendants or patients, and at times gets so violently excited and quarrelsome as to necessitate his temporary removal to a refractory ward. He is, however, a decent old man and a favourite.

CASE 121.—M. C—, female, widow, artist, æt. 66 ; certified six years on admission.

An intelligent-looking but restless and garrulous old woman. She is so anxious to give an account of herself and so verbose, and speaks so rapidly and with so many parentheses, that it is almost impossible to follow her. At first her remarks seem quite inconsistent. She is an artist and poet. In a couple of minutes she rapidly draws a moderately executed caricature, and she uses the pencil with skill. She quotes poetry rapidly and apparently accurately, and if I refuse to listen she rapidly summarises several verses in prose, and then proceeds to quote choice bits for my edification and amusement. She appears to be an exceptionally well read and cultured woman. After some time I succeed in getting her to settle down, when I find that her ideation is normal except for its extreme rapidity, and that her memory is exceptionally good even for dates of events which happened to her years ago. If her account of herself is accurate—and it is so circumstantial that this is probable—she has possessed considerable talent. She was a pupil of Landseer, and obtained two medals from the Royal Society of Artists. These were presented by the Prince Consort. She has earned her living by teaching and painting to order, and at the time when she was placed in an asylum, six years ago, she was teaching heraldic and animal painting and lived in lodgings near Dorking. The following is her account of her misfortune. She had obtained two Persian kittens for models, and had assured her landlady that they would not kill the latter's pet show thrushes. One of them did so, and in consequence of the resulting unpleasantness she left her rooms at 7 p.m. with a kitten under each arm, and took the train to Penge, where she arrived at 8.30. She asked a porter for a temperance hotel, and obtained an address, but it was $1\frac{1}{2}$ miles off. She therefore, being tired, waited on the doorstep of an empty shop, with a Gladstone bag, and a kitten under each arm. She fell asleep and was awakened by two policemen, one of whom remarked, "She seems very respectable, Bill, perhaps a drop too much. She seems decently dressed." They took her to the police-station and said they would have to charge her with being asleep in the open air or they could not give her a bed. On the following morning, just as she was about to be let off with a caution, they noticed the Persian cats, so she was locked up for three days, lest she might have stolen them. She was then dismissed, and the magistrate said, "Don't be brought before me again." After leaving the station she looked into her bag and found that all her letters and sketches were missing. She worried over these till 11 p.m. and then went back after them. She was again taken before the magistrates and was sent for four days to prison in order that the state of her mind might be investigated. She

was then sent to a workhouse for four days and afterwards to an asylum.

Whilst under observation she had too much loss of control and was too erratic to do any useful drawing or painting, and she was for many months very ill and feeble as the result of morbus cordis. She was so garrulous when her health improved as to be a nuisance, and she was less careful of her appearance and was much given to purloining, hiding and preserving newspapers and odds and ends. When last seen her ideation and memory continued unimpaired, but her general health was feeble.

CASE 128.—E. S—, female, married, housewife, æt. 29. Certified one year on admission.

An excited, restless, silly, laughing girl, who suddenly rubs my hair and says, "Like a bass broom: it looks as if it's been burnt in its time," then picks up a bit of blotting-paper and turns it about and asks me what I want to know. I ask her if she hears people talking to her and she replies, "All sorts," and then adds "All sizes." Then "Good God! He's the same man, ain't he? Should you call him a ginger man?" (referring to the colour of my hair.) I ask how long she has been married and she replies, "So much shifting and moving about that I can't recollect." She picks up things on the table and examines them like a monkey. Where have you come from? "From. I never know *from*. *Form*, do you mean?" She seizes my book and reads it, then sings "Sweet Marie, come to me . . ." or words to that effect. She rushes suddenly to the window, looks out and says, "Damn the paper!" Some minutes ago I told her not to act like a monkey and she now turns and calls me a monkey. At times she talks quite rationally for a few moments. She tends to repeat what is said to her and to mock at one.

In the ward she is most erratic and careless, though at times she talks sensibly. She is pleasant one moment and silly the next. She is very silly and mischievous in her behaviour and very lively and excitable. She often steals money or any article she can lay her hand on. She makes no attempt to read, but at times joins in singing. She will not work in the ward and neither makes her bed nor keeps herself tidy. She menstruates regularly, and is excited and silly and appears to hear voices at this time. She cannot be trusted at a dance. At the fancy dress ball she was most excited and indecent. She wore a bathing costume and tried to get the knickers down.

She works daily in the laundry, and her behaviour here is different. She is a good worker, but varies much in this. If supervised she nearly always works well and talks very sensibly and rationally. At times, however, if no one is there, she will turn on the steam or start a machine for mischief. She is very untidy with regard to herself, and nearly always gets her clothes soaking wet.

Group II. Class (c).

Cases of Chronic Mania, with Incoherence and Delusions.

This class contains 19 cases, of whom 6 are males and 13 are females. These cases form a half-way house between the

previous class and class (*d*), and shade gradually into each of these. They differ from the former in being on the whole less troublesome and in showing an apparently complete incoherence in their association of ideas, and from the latter in the fact that their ideation is simply rapid and uncontrolled, rather than grotesque or symbolical, and resulting in erratic and eccentric conduct.

In conversation they appear absolutely incoherent as a rule, although frequently the sequence of ideas by relative association is readily followed. Usually they are garrulous and exuberant, and are therefore grandiose. When ideas of grandeur arise, whether or not as a result of the suggestion contained in a question, they repeat the names of every person of eminence they happen to think of or perhaps of every place in the world they know by name, and hence the result is either an absurd exaggeration of their importance on the one hand, or a mere list of casual but related names on the other. The sequence of words may occur as a result of sound, or meaning, or both, and as a rule their ideation appears to be largely mechanical or automatic. The smart word-play, etc., which is a marked feature in the cases of class (*d*) is not as a rule obvious in these patients. They, however, equally with class (*d*), suggest gross madness to ordinary outside observers.

In some cases a rather curious type of incoherence exists. The intonation is correct, and the patient, whether in reply to questions or not, would appear to be talking sense if one did not hear the words clearly, but all or many of the words are misplaced or replaced by coined words with a very curious effect. In other cases, again, no sequence of ideas whatever can be made out, but scattered words occur during their conversation which suggest grandiose or persecutory notions. Finally in other cases an apparent partial consciousness of, with some control over, their subconscious ideational processes occurs, and this leads to a condition allied to a co-existing double consciousness on the one hand or to intense pseudo-hallucinations of an imperative nature on the other. An example of this class of case is given below as Case 161.

A considerable proportion of the 19 cases were workers. Of the 6 male cases, 4 were good workers, 1 was an ordinary worker, and one did a little work; and of the 13 female cases, 6 were good workers, 1 was an ordinary worker, 2 refused to

work, and 4 for mental or physical reasons were incapable of useful work.

CASE 148.—G. M—, male, single, street singer, æt. 57. Certified at the age of 47.

A lively and garrulous little man. On hearing the reply made to me by an attendant to a question about him, he says that this is a mistake, but not a beef-steak. He gives his age and the full date within two days, and adds "All depends on what calendar they go by. The Jews begin a new year on the 22nd of this month. They want to get back to Zion, but there's so many Zions." He says that he was in the previous asylum for eight or nine years. He was in the infirmary, working day and night. He got two ounces of tobacco a week for this and worked all over the place. He "helped the doctors with a good many dirty jobs—operations and things." He cannot stand too much humbug. "I like to know what's wanted doing." He says that if he got upset he knocked attendants or patients out of the way and was very violent. His real name is "Joseph Thorne, No. 1106, War Office." G. M— is a travelling name when he "doesn't want knowing who he is." He appears not to suffer from hallucinations. At this stage of his examination he becomes violently excited and will not tell me anything more, but asks whether I am a "God or devil or a w——." "I never owned her or her church, and I'm sure Joseph never did. . . . I've travelled two million miles among all nations and I've been aboard ships with mutiny, so you know what I know, and I ain't going to talk to anyone who knows less than me. . . . Man, know thyself. If you don't it's impossible to know others. That makes all the mischief in the world, and I've proved it on sea and land."

He is clean and neat and looks after himself, and when not upset is a good and useful worker.

CASE 155.—E. F. B—, female, single, shop-assistant, æt. 45. Certified 8 years on admission.

A very stout but rather feeble woman with a blank face and a number of purely horizontal wrinkles on her forehead. She knows the day and date, and where she is and where she has come from. She is very garrulous, and readily talks as follows. "Before the floods all the earth was water and everybody walked on the top like Christ, and had wings. The people were very wicked, like those in Gainsford Road, and so the flood came. . . . My father said I was brought down from heaven with two kisses." She talks in a coherent but doubtfully rational vein. When asked how long she was at G— H—, she says "that is Gainsford Road and also on the clouds." She mixes up religion and everything else, but her association of ideas can be followed. A large part of her remarks is of a descriptive nature. She is most inconsequent in her train of thought. She gives an animated description of meeting Jack the Ripper bending over a warm corpse. She says he is a Christian, and that she talked to him and he said the woman had murdered some children. She told him she was from Scotland Yard and was only three months married, and that he must therefore be careful what he said lest it should hurt her unborn child. She says she thinks Jack the Ripper is

a Christian and a gentleman, and that he must give up murders. She held several positions of importance. She is "first of the soldiers in the wide wide world, Heart Christian's anchor and anchor heart and Christian, Captain Harrington, R.N.,—true life, I think." She has several titles. She is "Duchess of Cleveland, Countess of Arledene or Her Grace the Duchess, Duchess of Athole." She has in all 64 titles. Others are "Duchess of Gainsborough, Empress of France, Olga of Russia, Mercida of Spain, Amelia (such a pretty name), Queen of Switzerland." Her family are "the owners of the Alps. Papa gave me these : also the hotel and châlet and Anthony's there, such a nice boy. You can trust him with any mortal thing. He keeps things going lovely. Ben Avis (? Nevis) belongs to us." She is also Empress of India, etc., etc.

During the time she continued under observation she was extremely stout and in feeble health owing to morbus cordis, and was mentally unchanged.

CASE 161.—S. E. D—, female, housekeeper, æt. 44. Certified since age of 35.

A restless, fidgety woman who lies curled up in bed. She looks at me and says: "I take again all I speak . . . all I speak. You're working on me." . . . "I'm not yours." . . . "You must have a bed-table and not use me. You're a perfect black and scamp to use me." (I am resting my notebook on the bed-clothes.) She notices everything said in her presence or to her and makes contradictory remarks, and if one touches her she shouts out. She keeps on talking to herself, telling herself to say something and then saying it. Often she tells herself in a whisper and then makes the remark aloud. "Harvey . . . Lue Harvey on to Kerby at Maryfield. Say Thomas Scurvy Maryfield. *Thomas Scurvy Maryfield*. Murdock Kerby really, really. Say me my own. *Me my own*. Say your son Charles. *Your son Charles*. Isabe, say Isabe. *Isabe*. Say your son Charles. *Your son Charles*. *Your son Charles*. Again. *Your son Charles*. Don't, leave me alone. You're right. You're not leaving me nice as I should, would, ought. Say B—r. B—r. Now. B—r. Now. B—r. Now. B—r. Now. B—r. Now. B—r. Now. B—r" (a foul name she is applying to me). After a while she takes little or no notice of me. I say: "Yes, that's very good," and she repeats: "That's very good," and then goes on talking to herself about me in an uncomplimentary way. I put my hand under the bedclothes near the pillow and she at once says: "Oh! he's indecently assaulting me." She reacts strongly to stimuli, but voluntary attention is practically absent.

She has no paresis as far as one can make out, but she never uses her legs. She often sits on the floor and rapidly moves about on her ischial tuberosities by means of her arms. This is probably a mechanical habit caused long ago by some imperative idea or delusion. She has one chair in the ward on which she will sit, and if anyone else uses it she sits on the floor. She is very solitary in her habits and never converses with anyone. At times, say when being given a bath, she lifts her legs herself, and therefore can presumably use them if she will. She understands everything said to her. She dresses herself and makes her bed, and always, without being asked, comes first to have

her hair done on hair-combing days. She refuses to work and never does anything except for herself.

Group II. Class (d).

"Cranks" and Asylum Curiosities.

This class contains 17 cases, of whom 7 are males and 10 are females.

These cases are of many types but possess certain fairly constant characteristics. They are extremely vain, conceited, and grandiose, and frequently form the "show-birds" of asylums. Their general behaviour is grotesque and usually amusing or absurd, and their actions are uncertain, erratic, and frequently weird. They are usually fond of finery and they wear absurd and curious decorations to which they often attach a symbolic meaning, whilst at other times they either refuse to say why they wear them or invent some ridiculous excuse on the spur of the moment. For similar reasons they at times perform strange actions—*e.g.*, constantly holding a finger in one or other ear whatever they are doing, going out of their way to touch particular articles as they pass, placing some utterly useless article on a particular part of the table where they work, etc. Sometimes they are artistic and if carefully watched may turn out good work, but if left to themselves they tend to spoil the effect by erratic modifications, or by introducing grotesque features, etc. These characteristics find their counterpart and cause in their association of ideas, which is usually erratic and frequently grotesque, and at times appears quite incoherent. Usually, however, a careful study of the case shows that this is not really so, and it is often difficult to determine how far they are voluntarily talking nonsense and how far the words they use are employed in some curiously symbolic manner or with some specially invented meaning. One day when I was reprimanding a patient for misbehaviour, he turned round to me and asked if I thought I was God. On my denying this he straightway informed me that I might be Jesus Christ perhaps, but that he was the Archangel Michael and would stand none of my d—d nonsense! This was merely a roundabout way of telling me to mind my own business.

These patients are always interesting and many of them keep one in a constant state of expectation as to what par-

ticularly smart or apt remark they will make next or as to what peculiarly erratic action or absurd antic they will perform. They are usually good-natured and are frequently favourites, but they are unstable and passionate and take strong likes and dislikes.

Some cases are solitary in their habits and peculiar in their behaviour and are given to morbid introspection; and these patients at times invent some new system of morbid philosophy. They re-adjust the world on lines of their own and invent all kinds of new words to express either directly or in a kind of shorthand their meaning. Some cases of this type, in their views of life and affairs, remind one of the Christian scientists or the different types of mystic, and may only differ from them in the fact that they themselves are not merely the inventors of the particular system, but the actual holders of the leading strings of the world. One patient, a relatively uneducated man, has invented a remarkable system under which he is a Doctor of Divinity and holds fourteen other "doctors' certificates." A few of the more important of these are—"chief doctor of bibolitical literature, chief doctor of medical aspects, chief doctor of aristoristic voice singing and apian music, chief doctor of prevelenation of cruelty, chief doctor of silk, cloth, and carabanic art-work, chief doctor and instructor of deaf and dumb motions." All these hard words were carefully spelled and partially explained for the benefit—and to the amusement—of the writer.

It may finally be added that these patients as a class (like many other types of ament) only differ from certain "sane" individuals in the absurd and grotesque extremes to which they carry their ideas and their resulting behaviour and actions, and that their stereotypism, which often suggests dementia, also only differs in degree from the stereotypism and prejudice which are often seen in the "cranks" of the outside world. It is this type of case, in fact, which most obviously illustrates the connecting link which exists between normal and morbid psychology, and which most clearly suggests an organic basis and a developmental origin for individual mental peculiarities.

Of the 17 patients in this class, a considerable proportion are good workers. Of the 7 males, 4 are good workers, 1 does a little work, 1 refuses to work, and 1 is mentally incapable of useful work. Of the 10 females, 2 are good workers,

3 are ordinary workers, 1 does a little work, 1 as a rule refuses to work, and 2 are mentally and 1 is physically incapable of work. The two cases cited are fair and by no means remarkable examples of the type.

CASE 168.—W. C. S—, male, married, stonemason, æt. 53. Certified 3 years. Sister in the asylum, an epileptic idiot, Case 67.

An intelligent-looking but excited and garrulous man. He gives his name, and says his age is about 50. He knows where he is and where he has come from and when he came and the present date in full, and at first he talks sensibly. He was at the last asylum about three years, worked well in his ward, and got three half-ounces of tobacco a week. He was taken there as his votes were forged and returned, one for C— and the other for L. C—. He had two letters of thanks for recording the votes. To hide the forgery the constabulary were “electropated” and also the relieving officer, and they came and carried out Secret Service orders worked by the great power electrical mesmerism by Whittaker Wright and Prince Jerome, who “is the double for the Sultan of Jehore and is the murderer of the whole of my army and navy and that of the whole of the Americans and of the Salvation Army, Church English and Roman Catholic, of the Italians.” He says that he is his own authorised “minter” and poses as Father Almighty. He is simply on his own, and holds the whole deeds of the world, and is, in short, Mephistopheles himself. “A short thick-set man, wearing black optics. He invited me to dine with him, and I was so abhorred and shocked at his blood-curdling form. You have his incubed son here. [He points out a Mongolian idiot in the ward.] He is Pontsfort. He is the American Ambassador and the owner of all this property.” I here ask him to write his name and he writes “Walter Charles Sir —Ace. Sir —Ace = One and only.” He is not an “incuba.” He owns the whole world. “My father is the only power in heaven. The Bible has never been righteously taught. I’m the only man of letters in the world.” He has now got “on top of Mephisto.” There is a lot about him (Mephisto) in the papers, and his extradition from America, and he is on tramp and a showman. At the previous asylum patient “heard him in converse all day. He spoke to me by Secret Service and wished to create me chief of police and arranged to give me £2 2s. a week. His voice is everywhere. Everything in these buildings is a tractory, even the plaster on the walls and the paint—like the whispering gallery in Westminster Abbey.” Patient is known on the service privately as “Pistol bullets.” He is an “incube” and is the author of “electropation.” He electropates kings, cardinals, and even the Pope. He could open all the locks at the previous asylum at the same time. There are two pins in all the locks. They are Pullman carriage locks. The doors are opened and closed for what he calls his midnight service.

During the above description the patient was obviously speaking largely in metaphor, with the design of impressing me. The last reference, for example, is either to the alteration in the side-room locks

which is made at bed-time, or to the hourly opening and closing of the doors by the night patrol.

Patient is a shrewd, well-read, and well-informed man, and at times talks quite sensibly, but he is very unstable, and when he gets excited one does not know whether to marvel at his extraordinary and grotesque association of ideas, or to be disgusted with the foulness of his language. He frequently makes most apt and cutting remarks, even when one might suppose that he was totally incoherent, whereas he is largely showing off. On one occasion, when he quite correctly thought that a friend of mine was laughing at him, he suddenly turned on him with a torrent of questions. My friend time by time replied "No;" but eventually incautiously answered "Yes" to a question as to whether he knew some purely imaginary individual. The patient at once rapped out: "Go and—his—then for a—liar!" to my friend's discomforture and the attendants' amusement.

He is a steady worker in a ward kitchen and a general favourite. He at times gets violently excited and abusive, but on the whole is amusing rather than troublesome, and he always has a genial word for anyone passing through the ward.

CASE 178.—M. A. C—, female, æt. 44, single. No occupation. Certified 8 years on admission.

A stout, dull-looking woman with a small moustache and imperial. Forehead narrow and eyes close together compared with the rest of the face. She has a great idea of her importance. She says she was the matron's maid and housemaid at C. H— and received 6d. a week and uniform. She was sent there by an old magistrate for refusing to pay her rates and taxes. In 1884 she left her home and went out as a housekeeper. In 1892 she returned and opened a shop for a butcher. In August, 1895, she was sent to C. H. She knows the day and the date within a day, and her general memory and power of conversation are good. It is difficult at first to estimate her mental capacity, as her intelligence appears masked by a grotesque exaggeration of her own powers which renders all the information she gives untrustworthy. In conversation she soon passes from the possible to the absurd. For example, at school she learned and could speak all languages but talks none now. Asked if she has any children, she says she has not, but adds that she picked up a boy and took him to her house and took care of him. On seriously leading her on she even makes such statements as that she was a General in the Boer War and her supreme conceit prevents her from seeing the absurdity of such attempts to convince me of her great capacity. She finally informs me that it is by no wish of hers that she is in the asylum, but as she is here she will do any work I wish. She speaks in a curiously abrupt manner, which seems to suggest that it would be barely worth her while to do so at all, were it not for the fact that it may impress me if she does.

She became a worker, and a most useful one, in the nurses' mess-room, and at once developed the idea that she was engaged as mess-room maid at £18 a year. She considered the real maid her junior, and frequently made most candid, and in some cases probably correct, remarks about her laziness and incapacity. On one occasion she told

me the maid was no use at all since she had taken to sweethearting, that she had two sweethearts, who gave her money, and that she had better take one or she would lose them both. Every staff pay-day she used to speak to me about the wages owing to her, telling me the exact sum owing since her admission and insisting on payment. She once offered me a shilling in the pound to buy tobacco and the matron two shillings in the pound to buy dresses if I would get her the cash. When I said I would do what I could if she would offer me the same as the matron, she was disgusted at my greediness and got quite bad-tempered. Whenever she happened to be tired or cross she would solemnly give me notice and tell me to send for her boxes so that she could leave and start a butcher's shop. She used to speak of marriage as quite a probability, and on one occasion she made an elephantine attempt to embrace me. At times she would make the most cutting remarks about the shortcomings of both the patients and nurses, and her appearance and behaviour were invariably those of a woman who appreciated her infinitely superior position and abilities, though occasionally she would condescend to be friendly and, in a heavy sort of way, even jocose.

(To be continued.)

The Natural Characteristics and Temperaments of our Patients and how they help or handicap us in our Treatment. By LIONEL A. WEATHERLY, M.D.

IN these days of ever-increasing progress in pathological research, carried out to a great extent by a body of enthusiasts, who devote their lives to the study of the *post-mortem* room, we are apt to have the important clinical aspect of our cases somewhat neglected, while with the present craze for building gigantic asylums for our insane we are tending more and more to lose sight of the individuality and personality of our patients.

I take it our ambition, our aim, must be two-fold: first, to try our utmost to increase the recovery rate of insanity; and secondly, to ameliorate as far as possible and make happy and comfortable those whose recovery cannot be hoped for.

Has pathology yet done much to improve our ratio of cures and can it for a moment be considered as tending to the welfare and happiness of the insane that they should be herded together by the hundred?

There can be no doubt whatever in my mind that the pathologists of our asylums should be always able to devote a very considerable portion of their time to the clinical study of their

patients, and that it is only by the association of the results of such two-fold study that any real hope can be entertained of increasing the chances of recovery in mental diseases.

Among those clinical studies nothing can, I think, be more interesting and more likely to be beneficial, in mapping out our line of treatment, than the inquiry into the normal temperament, disposition, and character of our different patients, and what changes in these have taken place with the oncoming of the mental illness.

By *temperaments* I mean, any marked type of mental constitution and development which seems due to inherited characteristics or the bodily organism (Ladd's definition).

By *disposition* I mean, this temperament plus emotional tendencies.

By *character* I mean, an essentially rational product involving the elements of volition.

Character, therefore, embraces not only the natural instincts forming the basis of temperament, but also what those self-formed habits of will add, in the way of new dispositions.

A perfect moral character may be, then, defined as "consistency in willing and acting, both being subordinate to practical principles, which are ruled by our highest moral principles."

When bad principles rule the mind, then the character is said to be immoral.

When persons are inconsistent and do not act in accordance with principles good or bad, they may be said to be characterless.

Habit is the material out of which much of character is built, and it may not be therefore wrong to define character as "a bundle of habits."

Hippocrates founded the doctrine of temperaments, and as Professor Laycock observes, "Although the many attempts which have been made to establish a complete and practical doctrine of temperaments have been unsuccessful, the general principles first eliminated from experience remain to this day."

We still have the four distinct types, the sanguine, the bilious, the lymphatic, and the nervous, and each one of these has its distinguishing characteristics.

In *Pathology of Mind* Maudsley writes: "No more useful work could be undertaken in psychology than a patient and systematic study of individuals, the scientific and accurate dissection and classification of the minds and characters of

men, in connection with their features and habits of body. How vast a service it would be to have set forth in formal expression the steps of the quick process by which the shrewd and experienced man of the world intuitively judges the character of those he has to do with, and refers them in a moment instinctively to their proper classes, in his mind."

But, I fear, however patient and systematic a study of temperament may be, we shall always be faced with the great difficulty, that it is rare to find definite distinctive types of physical character with equally definite mental characteristics.

Jonathan Hutchinson, in his address on this subject at the Royal College of Surgeons, said: "There can be no question whatever as to the reality of the difference between individuals, nor any doubt as to the importance of the recognition of these differences by the medical practitioner. Temperament is unquestionably a real force which we would gladly recognise and estimate, if we could. The scepticism which I have been expressing applies, not to the reality of the thing, but to our ability to discriminate it."

Far more often do we indeed find a complex temperament, while these temperaments, although they may have some of the distinguishing characters assigned to them, may yet be materially altered and modified by various causes.

"In business pursuits, the sanguine man finds that he must curb his impetuosity and pursue business much as the cool-headed bilious man does; the lymphatic man has to bestir himself; while telegrams and messengers wanting replies on business of importance compel the man of nervous temperament to put aside his doubts and act promptly."⁽¹⁾

Thus it is that character can materially modify the temperament, and so prove the impossibility of any attempts at strict classification.

It is just possible that in insanity, in certain cases at least, this hold of character upon temperament may be materially lessened, and that we then see the normal temperament of the individual more in its true light.

Of these four temperaments we may say that the following are the chief characteristics belonging to each:

The man of the sanguine temperament will be impulsive, buoyant, and cheerful: he will be excitable, readily provoked, but easily reconciled: he will be distinctly emotional, and,

while ardent in all he does, will not be persistent in his efforts : he will prefer muscular pursuits to intellectual studies, and he will be equally happy in the pursuits of little as of great ends.

The man with the bilious or choleric temperament will be serious, unimpulsive, jealous, revengeful and unscrupulous, while in business matters he will be cool and wary—always eager, earnest, and persistent. Enduring in his work, he will find more pleasure in his business, which brings him money, than in the muscular or intellectual pursuits, though, if he chooses, he could excel in all.

On the other hand, the owner of the lymphatic or phlegmatic temperament will be the reverse of impulsive : he will be slow, heavy, and carefully thoughtful before arriving at a conclusion : he will be readily provoked, and, though forgiving, will not forget ; always persistent, but certainly not ardent, he will be enduring in his work and a veritable plodder in business, and will probably avoid muscular pursuits.

Lastly, the man of the nervous temperament will be animated, impulsive, and will draw conclusions so quickly that they are often regretted : he will be excitable, very readily provoked, but reconciled immediately : very imaginative, sensitive, particular, and fastidious, and while irresolute, will be very persistent after his final decision. His endurance in work will be so great that he will never give in, and is always in danger of physical bankruptcy. He will enjoy both intellectual and muscular pursuits, and will find happiness in anything which pleases the senses and enriches the mind.

Mr. Alexander Stewart, whose work, *Our Temperaments*, I have read with much interest and to whom I am much indebted, makes a great deal of the physical and mental corresponding characteristics in these classes and even goes so far as to say that when complex with regard to mental character, they are correspondingly complex with regard to physical peculiarities.

It can be easily seen from the above description of the different temperaments what a large part they play in the ultimate disposition and character of the individual.

The disposition we recognise as being practically the direct outcome of the temperament with added to it emotional tendencies which may result from many causes, while the character must have its foundation laid in these different kinds

of temperaments, though afterwards built up and completed by environment, education and habits.

All these, *viz.*, the temperaments, the disposition, and the characters, can act and re-act upon each other, and so all the individual peculiarities may from time to time become modified.

But modification is all one can expect, and it would be impossible to actually and entirely change the temperament, which is as much part and parcel of the individual as are the colour of his hair and eyes and the outlines of his features.

In insanity we are often told that one of the constant and earliest symptoms will be found to be a change in the character of the patient, often amounting to an actual reversal.

For my part I think this is overdrawn, and that although we may get in some cases of organic lesion an absolute change of character, and even temperament and disposition, such as in general paralysis of the insane, in the majority of cases one finds either little difference or, if any, a mere exaggeration of the worst qualities of the temperament, disposition, and character. The vindictive, revengeful person will be dangerously inclined, while the impulsive and excitable will be always on the brink of an acute outbreak; the jealous individual will resent the least attention paid to any other patient, while the discontented being will alienate all possible sympathy by his constant grumblings, and the selfish creature will desire to absolutely monopolise the services of all about him and think no one ought to be considered but himself, and bitterly complains if by any unforeseen difficulty he is not able to do just as he at that moment wishes or may have planned.

The enormous and comprehensive subject of disposition and character, including habits and idiosyncrasies, is one upon which I can only touch very generally in a short paper.

Dr. Whitby, in his work just published on *The Logic of Human Character*, divides it into the following categories:

(1) The implicit character: (a) pride, sympathy, toleration; (b) admiration, awe, respect; (c) obedience, habit, convention.

(2) The personal character: (a) observation, introspection, self-consciousness; (b) desire, self-will, responsibility; (c) obligation, consistency, conscience.

(3) The practical character: (a) energy, courage, tenacity; (b) capacity, interest, purpose; (c) method, experience, ability.

(4) The social character: (a) affection, geniality, goodwill;

(*b*) liberality, prudence, common sense ; (*c*) self-respect, humility, reverence.

(5) The individual character : (*a*) originality, ambition, distinction ; (*b*) enlightenment, culture, idealism ; (*c*) principle, sincerity, equity.

(6) The universal character : (*a*) impulse, passion, love ; (*b*) intuition, detachment, wisdom ; (*c*) aspiration, inspiration, genius.

On the other hand, Muirhead in *The Elements of Ethics*, contents himself with the simple classification of the virtues as :

(I) Moral virtues (1) self-regarding : (*a*) purity ; (*b*) temperance ; (*c*) courage ; (*d*) industry ; (*e*) prudence (including thrift) ; (*f*) self-respect. (2) Extra-regarding : (*a*) justice ; (*b*) benevolence.

(II) Intellectual virtues (1) in the pursuit of truth : (*a*) sincerity ; (*b*) impartiality ; (*c*) concentration ; (*d*) accuracy. (2) In the communication of truth : (*a*) truthfulness ; (*b*) candour ; (*c*) proper reserve ; (*d*) consideration. (3) In the application of truth to life : (*a*) prudence (in a narrower sense, *e.g.*, a prudent housewife) ; (*b*) wisdom (in a broader sense, *e.g.*, a wise councillor).

With regard to habit, it must be always difficult properly to define this at all satisfactorily. Actions which are constantly performed tend to become automatic and are commonly described as instinctive in their nature. Murphy explains habit as "a tendency of certain actions to repeat themselves, or at least by repetition to gain greater ease of action," while Sully defines it in its most comprehensive sense as "a fixed tendency to think, feel, or act in a particular way under special circumstances." Habits must have their advantages and also their defects. Bad habits are difficult to eradicate and are very striking features in the difficulty of treatment of many of our cases.

To attempt to go through each of the elements of character, and the very long list of possible habits, good and bad, and to draw conclusions from each separate one as to its influence to help or handicap us in our treatment of the insane, would mean the writing of a book, and a very large one, too. In this short paper I can only more or less generalise and draw a few simple conclusions, leaving, as I am well aware and wishful for, ample scope for discussion and the writing of a second part to what is practically only an introduction to the whole subject of

“temperament and character as an influence in our treatment of the insane.”

Although it is to a certain extent true that we may live with a man half a lifetime and not fully understand his real character, there are generally some traits in temperament, disposition, and character that are capable of being realised and appreciated.

With regard to our patients, we have first to depend upon the history we get from their relatives, and secondly, to use an expression full of meaning, we have “to summer them and winter them” ourselves. When once we do realise their temperament, their disposition, and the leading elements of their character, and note their habits, we shall then be able to judge what will be helpful and what will handicap us in our treatment, and in many cases we shall be enabled to outline a mode of life and discipline suitable to their case.

If there is one characteristic more general than another belonging to almost all of us, it is a feeling of repugnance and irritation at being in any way dictated to as to the details of our ordinary daily life, and this feeling is often intensified in insanity, especially in the milder forms of mental ailment. You map out and arrange some pleasure for a patient; you take, may be, a ticket for the theatre or a concert for such a one; and, perchance, when made aware of the fact, and though, perhaps, in his heart desiring to have the benefit of it, he refuses to accept the pleasure simply because you have arranged it for him instead of the wish having come in the first place from himself.

Of course, there are many patients who have little power of ordering their goings or of suggesting their desires, and for such you may do what you think best, but for those who are capable of making known their own wishes and desires I am sure it is less irritating and far wiser and more likely to promote their happiness if by tact we are able to allow them to think that they are doing what they themselves wish rather than what we think good for them.

In cases of delusions of persecution how much are we helped or handicapped by the temperament, disposition, and character! If our patient is well and kindly disposed, easily reconciled, and of a forgiving nature, you may allow such a one a considerable amount of liberty, which will be a helpful aid to recovery, if that is possible, and if not, at least a mode by which greater

happiness is gained ; while, on the other hand, if such a patient is of a revengeful and vindictive temperament, your anxiety will indeed be great, and constant watchful supervision will be a stern necessity.

In melancholic states the selfish-natured man will indeed be a thorn in one's side, and I know no greater curse to a medical superintendent's life and to that of his subordinates than an utterly selfish hypochondriacal melancholiac. He is lost to any moral feeling, and you have nothing to appeal to in order to create any chance of improvement.

Let a melancholiac be of an unselfish nature and of a self-sacrificing disposition—and such are met with—how different our work becomes and how quickly can we hope for improvement in such a case !

The discontented and ungrateful patient must of necessity seriously handicap himself and our efforts either in the chance of recovery or in the possibility of leading a comparatively happy life. He alienates our sympathy from him, and we cannot expect our attendants and nurses to take the same kindly interest in such a case as they would when gratitude and contentment reward them for their efforts.

I must say a few words as to the question of habits. To my thinking they are often most interesting, and the study of them in all their bearings most helpful to us in our treatment.

A gentleman who came under my care not long since suffering from general paralysis of the insane, was exceedingly noisy and excited when he went to bed. An attendant was on duty outside his bedroom door, and for three nights he was very destructive, trying to get out of the window and hammering at the door. On the third night he broke up his furniture and became in a condition of wild mania. On telephoning to his wife the next morning, she informed me that she quite forgot to tell me that her husband had the greatest dislike to sleep in any room with the door shut, and if they were staying at an hotel he always insisted upon having his bedroom door left open. The next night I adopted this course, and he had a quiet night, and from that time on I had no trouble with him during the nights.

An elderly lady, now under my care, had been very difficult to dress each morning, and while struggling with the nurses I found that she was repeating the names of the books of the

Old Testament in their order. I suggested that the nurses should allow her to finish this list ere beginning to attempt to dress her. This plan answered admirably. On the next visit of her relative, I found out that my patient had always been very determined, when once having begun anything, to let nothing interfere with her finishing what she had started. In a few weeks trouble again rose. This time, as soon as the nurses came to dress her, she began to count round the frieze of her room, which had a pattern many times reduplicated. They found, by allowing her to finish counting round the room, she at once permitted them to dress her. The same sort of thing now happens when she is taken out for a drive or a walk. She at one starts turning the handle of the door, and does not move until she has turned it twenty times. By recognising these as persistent ideas, arising out of natural habit, one is able to steer clear of much excitement, struggling with nurses, etc.

Another patient of mine, a gentleman who was at times most maniacal, had all his life been most methodical. I at last found that many of his attacks of maniacal excitement were produced by the attendant not doing things in the same order one day as usually done ; *e.g.*, in folding up his clothes he would occasionally take a garment out of the usual order. This at once produced excitement. Instructions to the attendants always to be careful on these points resulted in long periods quite free from mania.

I could enumerate many other instances, but I am sure these will suffice.

With regard to discipline in its relation to character, etc., we should, I think, bear in mind that just as we view the effect of rational discipline on the character of a child, we should view the effect of discipline on the nature and character of many of our patients ; and just as no hard and fast rules are applicable to the formation of character in the young without taking into consideration the individual temperament and disposition of the child, so should it be, to a certain extent, with regard to the discipline we formulate for those patients entrusted to our care. Such discipline should be liberal, and it should also be rational and offer suitable opportunities for the exercise of the will. Encouragement should always hold a high place in all our rules of discipline. Without it, I am sure we shall often seriously handicap our own efforts towards betterment.

I trust that in this short and quite imperfect paper I have said enough to arouse some interest in what, to my mind, is a very important factor in our treatment of many, if not all, of those entrusted to our care, and I hope at a future meeting to enlarge more fully upon this very necessary study of the temperament, disposition, character, and habits of our patients.

(¹) *Our Temperaments*, Stewart.

Some Points connected with Tuberculosis in Asylums.(¹)
By W. F. MENZIES, M.D., M.R.C.P.

THE subject of tuberculosis in asylums is by no means a new one. On the contrary, many have written upon it, probably long before Dr. Clouston, forty-two years ago, published his well-known remarks. It would be neither profitable nor desirable to enter here upon a discussion of the individual views expressed from time to time, but for many interesting and instructive observations it is only necessary to turn to the papers presented to this Association of recent years by Drs. Crookshank, Blair, France, Weatherly, Drapes, and others. This being so, you will not expect to hear anything new from me; in fact, I do not think I can lay claim to a single original observation; but as no one paper deals with any large portion of the procedure to be observed in combating the spread of tuberculosis in our asylums, and as my attention has, for the last nine or ten years, been directed to the problem of how to reduce the death rate without any great expenditure of money, I have thought it well to introduce a discussion rather on the actual details of procedure than on the principles involved, in order to stimulate the expression of opinions of all sorts; for it is evident that there are many equally good and efficient ways of arriving at the object which every asylum medical officer desires.

Although of late years the majority of superintendents have been at more or less pains to reduce their tubercular death rate, yet one still meets with one now and again who adopts a fatalistic *laissez-faire* attitude. And certainly it seems as if at one period the efforts of our predecessors were in danger of being lost sight of. In the eighties and early nineties we did not

look with alarm on a high tubercular death rate. Until about this time the asylum rate seems to have been gradually falling, although not in corresponding ratio to that of the sane population, but since then it has, until the last few years, tended to rise, a result which I attribute to the gradual introduction of heating apparatus in asylum buildings, especially dormitories. The interest shown by this Association culminated in the appointment of the Commission on Tuberculosis, but unfortunately, the results arrived at were far from satisfactory. A more disappointing document than this Report I for one have yet to witness. The mountain which produced the proverbial mouse was nothing to it. The schedule of questions was alone sufficient to condemn it before any conclusions were arrived at. But possibly the Report was a blessing in disguise, for it set people trying to solve for themselves some of the difficulties which it had been hoped the Tubercle Commission would solve for them.

Although it is true that many mental conditions may be associated with phthisis, and that there are many varieties of the so-called phthisical insanity, yet I have never been able to associate myself with those who declare that there is one clinical form in which the disease can be diagnosed, apart from physical examination, by the cerebral signs alone. It always seems to me that observers are unconsciously influenced, either by the revealed presence of phthisis on examination or by the facies of tubercle, to which I shall refer later. What appears from my own observations is that tuberculosis, generally pulmonary, is the determining factor in the production of an appreciable percentage of cases of acute insanity, either in higher-grade ailments or in primary adult cases, and that its presence cannot distinguish the case, without physical examination, from any other form associated with defective hæmopoietic conditions. In 1903, 3·2 *per cent.* and in 1904, 2·5 *per cent.* of the admissions to Cheddleton showed evidence of early or advanced tuberculosis. Some of them were epileptic, some imbecile, some general paralytic, but at least half were types of excitement or depression of recent origin—from a few days to a few weeks. We know that tubercle is fairly far advanced when physical signs appear, certainly a few months at least, omitting the rather rare acute miliary form, which is generally fatal before removal to an asylum, so that in the cases mentioned the mental signs followed closely upon the physical disorder. This is a branch of the

subject to which I hope to return at some future time, as long observation is required before it can be established or disproved, but I must here claim it as an axiom that *an appreciable percentage of primary adult insanity is precipitated by one of the known causes of defective hæmopoiesis, namely, tuberculosis.*

Now these early cases of all sorts among the admissions are to be regarded as the *fons et origo* of our large death-rate. Some of them rapidly recover, but as a rule recovery is slow, or chronicity supervenes. The epileptics infect their ward, the general paralytics infect the physically infirm in the infirmary. But it is chiefly the chronic residue which causes the trouble, for they infect many others around them, and especially those who are working in dusty places, the upholsterer's or stonemason's shop, or the bakehouse. And each in turn becomes a fresh centre of infection, until this position has been arrived at, that a collection of human beings in an asylum, whose every act is supposed to be regulated by a scientific medical superintendent, shows a tubercular death-rate at least ten times as high as that of the general population at corresponding ages outside, and which is in a position of great inferiority from a sanitary standpoint. This is certainly a nice state of affairs, and one wonders how we can have stood it so long. There are a good many points in asylum administration in which our ideas have become hoary and crusted. This is one, and it is decidedly humiliating that we should have to follow outside teaching, when we might have led.

The subject falls naturally into two parts, diagnosis of early cases on admission, and prevention of spread. It will be quite unnecessary to discuss the ordinary physical signs of evidently advanced cases, or the special medical treatment of these, as our present concern is more with the preservation of a healthy standard among the uninfected, and so the treatment of those already infected is of importance in so far only as they are a source of danger to those around them.

Diagnosis on Admission.

(1) *Temperature.*—Although so many sane tubercular subjects have a normal temperature for prolonged periods at a time, I doubt if many cases of at least the more active types of insanity are free from tubercular fever when admitted, because the

decision to certify has generally been caused by some train of insane acts which in themselves tend to raise the temperature of a tubercular individual, while the mental excitement of removal to an asylum will have the same effect upon the more rational ones. We can weed out at least 90 *per cent.* by this means. The temperature of every fresh admission should, for the first week, be taken in the morning, and at 2, 4, and 6 p.m. I have not personally met with any cases whose daily rise was not covered by one of these hours. Axillary temperatures are notoriously unreliable, on account of thinness, muscular movement, chilled skin, carelessness of nurses, etc. Even the mouth is not a true index. Either the rectum or, in sensible males, the issuing stream of urine should be used. All cases who present any rise are gone into more fully, and if no other satisfactory explanation is forthcoming, like constipation, sepsis, etc., are removed to the phthisical ward and set aside for tuberculin injection when the temperature has become normal. Meanwhile they are to be treated by strict rest in bed.

(2) *Physical signs.*—It is most important to account all suspicious physical signs, however slight, as positive evidence, until tuberculin has disproved them. Flattening of a part of the chest, the slightest rise in the percussion note or increase of resistance to the tap, especially in the subclavicular or supraspinous regions, some slight derangements of the normal breath sounds, such as diminution at the apices, jerky or cog-wheel breathing, some fine crepitations after full expansion of chest and coughing, especially in the region of the right middle lobe—any of these generally means either old or active tubercle. I cannot agree with Dr. Latham that slight departures from the normal are found at the apices, especially the right (except, of course, the higher note of greater muscularity) in healthy individuals, especially those with emphysema. I believe that these are practically always signs of old adhesions and consolidation, and we know how liable such persons are to reinfection from what we see at *post mortems*. One cannot help noticing how much commoner “short wind” is in the athletic members of tubercular families than in others of more healthy heredity, and it is quite possible that there is an inherent difference in the amount of muscular tissue in different lungs which may determine both emphysema and tubercular infection.

(3) *Tubercular facies.*—As an aid to diagnosis this is not

to be despised. It can best be described as comprising the features of one or other of the tubercular diatheses in combination with the aspect of active anæmia. I have seen several of these cases lately in which neither physical signs nor fever was at first present, but the resistiveness to mental improvement and fattening made one almost sure there was tubercle, and later its presence became certain. But, naturally, if the patient has before admission been under medical treatment the greasy pallor does not appear.

(4) *Weight*.—Although this does not apply to recent admissions it is well to mention it. As in most asylums all patients are weighed monthly, it is easy to detect any decline extending over three months, and eliminate cases of excitement, general paralysis, other physical ailments, overwork, and such causes. Cases where the loss is explained by anorexia are especially suspicious, as is also a relapse into depression of a chronic case, or when one has been working in the upholsterer's or mason's shop or bakehouse.

(5) *Tuberculin injections*.—When Koch first introduced his tuberculin I used it extensively, like everyone else, and many patients suffered from overdosing. This year I am trying it in moderate doses, 1 to 5 milligrammes, and if the statement is true that these doses when injected in the absence of fever are harmless, it is evident that an extension to all admissions indiscriminately will settle the question with ease and certainty. Suspects can be injected at once, but the process should be pursued in the phthisis ward; in fact, no suspect must be kept in the admission ward at all.

Prevention of Infection.

(1) *Segregation*.—One cannot help thinking that the indiscriminate craze for special sanatoria will ultimately lead to a discrediting of this, by far the ideal, method of treating tubercular diseases. Public bodies are finding that their rates will not stand the burden of providing them for the poor. This is a pity, because their educational value has been very great, and each patient treated in one becomes a zealous propagandist of the doctrines of healthy living. But sanatoria are expensive, both to construct and maintain, and so it is little wonder that many superintendents of asylums, realising that they cannot

have a separate hospital, are likely to attempt no special treatment at all. The requirements of asylum sanatoria are almost prohibitive; for they must be miniature asylums, complete in every detail for treating every class of the insane—convalescent, epileptic, chronically excited, idiots, clean and dirty, sensible and incoherent; and if we do not include *every* case in such a building there seems really little use in incurring the expense of treating any.

But there is no reason why we should not set aside one ward on each side for known and suspected cases. Every asylum possesses a suitable ward. It must have an observation dormitory, with as many single rooms as possible opening directly therefrom. The night and day space must be well separated, and it should open directly into an airing court by its own door without the necessity for entering the main corridor. By preference it should be a first-floor ward, in order to obtain more air. The airing court is, of course, to be reserved wholly for the use of the phthisis ward. To this ward are removed all established cases and suspects. There should be no danger of cases sent in error being infected if proper precautions are taken. The inmates of the phthisis ward must never mix with the other patients, either in the dining hall or chapel or at entertainments. They must receive visits from their friends in the ward and not in the visiting room. The single exception is that the early and robust cases may go out with working parties, for the tubercle bacillus is not resistant to diffuse daylight, and those far enough advanced to have much expectoration are not strong enough for anything more than light gardening in their own airing court.

You may say that their life is monotonous, that it is not worth living, and so on. One critic even presupposed serious mental damage to these patients. My answer is to ask whether an asylum patient is more or less responsive to monotony than a sane phthisical case who realises the gravity of his state. If sane persons can be contented and happy in a sanatorium, how much more will a lunatic be, for his creature comfort is his great aim in life. He is better fed than the healthy patient, he does less work, he has plenty of time for reading and billiards, he goes out walking every day, instead of wheeling a barrow or digging. His open-air life induces a vigorous appetite, and his looks belie the state of his lungs. He regrets the absence of

tobacco, but soon accustoms himself to the loss. A very fair percentage recover and are discharged, and altogether, after two years' trial, I say without hesitation that the phthisis ward is far from unpopular in the asylum hierarchy—not half so unpopular as the chronic working ward. There are never more than two or three cases in bed at one time, and the influence of these is altogether far less depressing than the infirmary sick-room.

The following remarks on the subject of prevention must be understood to apply to the whole of the asylum, and not to the phthisis wards only. When a distinction is to be made it will be specifically mentioned.

(2) *Windows*.—In the phthisis wards we keep the dormitory, dayroom, corridor, single-room, and sanitary annexe windows open top and bottom, five inches clear, night and day, summer and winter, except only the north windows when there is a very cold gale blowing in winter. This is not often, and most of the windows face east, south, or west. In a ground-floor ward one could take the window-sashes out altogether, and I have seen in some asylums the excellent method of replacing the sash by wire netting. Still, it is convenient to have a sash which can be shut under exceptional circumstances. By a small adjustment of the ordinary sash-lock the windows can be fixed immovable in any position. In the other wards throughout the asylum the dormitory windows are fixed five inches from the top only, the bottom sash in these, and both top and bottom sash in the day-rooms, being free to shut or open up to the maximum of five inches. The dormitories I look upon as most important, for there is evidence that a large part of asylum infection takes place at night, and that the time element required is somewhat prolonged. There is no other way, in the absence of an attendant, to keep the windows open, except locking them. It is surprising how soon the patients become accustomed to the low temperature, and how soon they come positively to like the gale blowing in on their heads. Of course, in cold weather a great many blankets are required—six, or even, in some cases, seven per patient. The initial cost is heavy, but good blankets last for many years. Some doubt has been expressed as to whether the Commissioners' requirements of cubic space in asylums are sufficient. Seeing what an expense in building would be entailed for every additional

foot, we should pause before recommending an increase, and the truth is, probably, that with thorough ventilation three fourths of the present allowance would suffice, but with all the windows shut ten times would not be enough. In the main corridors of the asylum every window is kept open night and day, and there is no heating. Patients do not catch cold in passing rapidly from one ward to another, especially if inured by custom.

(3) *Ventilation of single rooms.*—Two years ago we had all our single rooms ventilated by cutting out the upper panels of the shutter and two of the panels of the fanlight above the door, and filling them in with perforated iron sheets, the holes in which were set as close together as was consistent with strength, and one third of an inch in diameter. The single room and gallery windows being open, a current of fresh air can blow through the single rooms night and day. I have always regarded this single room question as very important, for the atmosphere of an ordinary asylum single room at 3 or 4 a.m. is a thing never to be forgotten. It is not denied that in the old days, twenty years ago, before we heated our single rooms, we got many deaths from collapse. These we now escape by leaving the heating apparatus on in winter and the windows open. In the case of a delirious patient who throws off his clothing we can close the windows for one or two nights, and the temperature rapidly rises. But this is only occasionally required, and is only done by medical order. I have no heat on in any dormitory or sick-room except the infirmary, but all the day rooms are heated, for these can be regulated by the attendant, and there is a standing order that the temperature is to be kept between 10° and 12° C.

(4) *Spittoons.*—In the phthisis wards no tobacco is allowed except to the robust, sensible cases who do not spit. Anyone seen expectorating is deprived of tobacco. For the advanced cases spitting mugs are provided, containing a little lysol or formalin and soda, and these are emptied down the water closet four times per day, and the mugs scalded with boiling water. In the ordinary wards spitting is discouraged by every possible means, and again the most potent measure is to stop the tobacco of anyone seen expectorating. No spittoons have ever been provided at Cheddleton. It took two or three years for the attendants to cure themselves of the habit of expectorating, and now, after six years, although not stopped

entirely, the amount of spitting among the patients is not 10 *per cent.* of what it was. Dirty patients who cannot be entirely cured are kept in bed in a single room while in the ward, and I have never seen yet even an idiot who could not be greatly improved by careful training.

(5) *Fibre mats.*—These are a constant receptacle for expectoration, and are a source of serious danger. I should like to see them wholly banished from asylums, were it not for the difficulty of finding suitable substitutes. They must be reduced to the lowest possible number in the general wards, and in the phthisis ward are never permitted. The best thing I can think of is a large piece of coarse sail-cloth laid on the floor of the entrance corridor, upon which the patients are taught to scrape their boots. This large rug is kept in duplicate, and sent to the laundry weekly. Patients remove their boots on this before stepping into the boot-room, and the infected mud is rolled up in it to be shaken outside.

(6) *Heating coils.*—Next to fibre mats I look upon these as among the most common means of propagating phthisis. Naturally engineers prefer to have them with closed sides and open gratings on top, because they give a better upcast for the hot air. This open grating makes a most convenient spittoon, as well as a receptacle for all sorts of filth, dust, paper, and rags. The current of hot air dries these and carries the bacilli broadcast in swarms. Coil covers should be made as ornamental pillars higher than a man's head, with a close-fitting door at floor level for cleaning. Or they may be abolished altogether, and the pipes carried in cases round the windows, so that the incoming air is warmed. Those which heat the same used-up air over and over are bad, and most electric radiators are of this type. All covers should be made so that they can be lifted off bodily each week by the attendants, and all coils should have a local valve to shut off the heat. They may be allowed to cool over night, and in the morning first wiped with a rag dipped in chloros solution, then scrubbed with soap and a hard brush, and when dry thickly blacklead. Coil covers already in position may be easily altered by fitting sheet-iron over the top grating, raising the cover 4 or 5 inches on angle-irons, and filling up the space thus left just below the top with fine perforated zinc or gauze. Direct high-pressure steam is rarely used in asylum wards on account of its obvious disadvantages.

But it probably rapidly sterilises any bacilli falling on the pipe. Hot air or hot water is the dangerous medium. In cleaning the coils the inside of the casing should not be neglected. Another part of the system too often overlooked is the calorifier or coil chamber in the basement, which generally supplies hot air to a row of single rooms. This is easily fouled by dust and filth pushed through the gratings, or by cats, rats, mice, and insects. Frequent inspection is required, and a routine scrubbing with chloros at least twice a year—before the heat is turned on in autumn and after it is turned off in spring.

(7) *Air-flues and Tobin's tubes.*—The state of filth of these after a few years' use is astonishing, and especially are the so-called upcast shafts in the chimneys dirty. If these always acted in one direction one could neglect them, but the columns of air are in a ward nearly always upwards in some and downwards in others. The whole theory of currents actuated by differences of temperature as a means of warmth and ventilation is faulty, for transfusion and radiation are such weak forces when opposed to perflation. Cross ventilation by open windows is the simplest and safest for asylums, and I am glad to see the Lunacy Commissioners are no longer recommending expensive and complicated air-shafts. The plenum system may be excellent for hospitals, but it is quite unsuitable for asylums, and besides is very expensive. If air-ducts are retained they must be cleaned throughout every year, and whitewashed with lime and chlorinated lime mixture. Tobin's tubes can be simply taken away altogether.

(8) *Ward cleaning.*—I wish I could say that I have been able entirely to abolish dry sweeping and dry dusting. Attendants and nurses slowly improve, but with patients doing so much in an asylum the struggle is incessant, unless one threatens to dismiss the first *employé* detected permitting it. Hair brooms are so nice to brush up crumbs, and carpet-sweeping machines refuse to take the larger particles. The streaky marks left by wet cloths on polished floors are the trouble. But if after mopping the dust with a wet broom one allows the floor time to dry, a cloth wrung out of very dilute ronuk and turpentine removes the streaks and the polisher easily puts a surface on again. No real progress can be made in the prevention of phthisis until dry sweeping and dry dusting are absolutely abolished.

In the phthisis ward the chief danger of bacilli lies on the floor and dado. Wood dados are unsuitable, as it is difficult to clean them, and pitchpine alters so much with varying heat and dampness that chinks cannot be caulked. Still, most of the bacilli can be tackled by wiping the dado and all the ledges daily with cloths damped in formalin solution. Soap and water are, of course, necessary for any dried sputum or other visible dirt. Wet sputum, fæces, etc., can be wiped up with a chloros rag, which is immediately burned.

Curtains should not be allowed in the phthisis ward, but in the other wards there is no objection to them so long as they are of washable materials, and are washed every two or three months. Carpets and stuff mats should be discouraged as much as possible; in the phthisis ward they are forbidden, and even bed-carpets are not issued. It is a good plan to put a layer of mackintosh under the carriage-cloth on furniture, so that this can be washed with a soapy brush when soiled, or dabbed with formalin, without the water getting into the horsehair. Couches, easy chairs, and cushions should, wherever possible, be thoroughly beaten outside the building on the weekly cleaning day. Tile and stone corridor floors can be scrubbed daily, but soap is really only required once a week, except in the phthisis ward. Chloros is added to the water once a week (on a different day from the soap) but in the phthisis ward is used every day. Water-closets should be thoroughly scrubbed with soap and water daily, especially the woodwork. It is a good plan to do this in the evening and allow the wood to dry over-night, oiling it in the morning before the patients use it. Chloros must be used daily in the phthisical ward, the solution being afterwards poured into the pans and down the slop-sinks. All patients who are excited and spit must sleep in single rooms, and these may be scrubbed out every day and afterwards sprayed with formalin, which is less destructive to parian or pytho dados than chloros. The main asylum corridor should be scrubbed with weak chloros once a week.

(9) *Laundry*.—The female phthisis ward at Cheddleton is only a few yards from the laundry yard, and the male phthisical clothing is not brought along the main corridor, except in very bad weather, but is carried outside to the laundry yard. Here the attendant and laundress check it over and it is put direct, the cotton goods into a boiler which is standing ready full of

boiling water, the woollen goods into weak chloros; the latter are kept there over night. I find the chlorine acts less on wool than on cotton, and boiling naturally shrinks wool too much. After this preliminary disinfection the clothing is allowed to mix with that from the other wards.

(10) *Diet*.—The great fault of the ordinary asylum diet-sheet is the deficiency in fat. The proteid allowance is also low, but not so strikingly so. In some asylums green vegetables are not supplied all the year round, but this certainly does not apply to the Staffordshire asylums, whose tubercular death-rate is high. Fats and proteids are expensive articles, but I am satisfied we do not give our patients enough fat. The best margarine is more palatable and far cheaper than indifferent butter, and I have found it necessary to increase the allowance from $\frac{1}{2}$ to $\frac{3}{4}$ ounce per meal, although this means an extra penny on the weekly maintenance rate. Asylum meat loses much of its fat when baked, as is usually done, in the baker's oven; there is no basting and much of the fat is burned, the temperature being kept too high in the later stage of the process. It may be possible to add good linseed oil to cooked vegetables, and we are at present experimenting with this in order to try to present it in a thoroughly palatable form. It is cheaper by far than cod-liver oil.

(11) *Upholstery*.—The upholsterer's shop is responsible for many cases of tubercular infection. When the Cheddleton extensions are complete we hope to have an open shed for teasing the coir and hair, and a powerful fan to blow the dust away, also a cheap spraying chamber where formalin vapour can penetrate the hair, and warm air dry it quickly. It is useless to talk of disinfecting by steam. Good hair costs 1s. 3d. per lb., and steam at once makes it crack and break, so that it soon becomes useless and can never be used twice. At the same time, re-infection cannot always be blamed for hair-pickers' deaths, for the dust is probably the more dangerous agent. I have noticed in those dead of tubercle who had worked for a few months in the upholsterer's shop a very large percentage of old caseous nodules at the apex, which possibly the irritation from dust had merely stirred up again. One would like to banish upholstered furniture entirely from the phthisical ward, and no doubt this will come in time.

(12) *Handkerchiefs*.—This is a difficult subject. At best

the asylum patient of the lower class does not set much store upon any sort of handkerchief. I have of late been trying Japanese paper in the phthisis ward, but the great difficulty is to get an antiseptic into the pulp without destroying the sheet. Besides, they are rather expensive, 13s. per thousand, and each patient requires at least two per diem. At first the patients persisted in using them for water closet purposes, but in time they became trained to appreciate them. It is necessary, if they are to do any good, to have a pile of them on an open shelf in the day-room, so that patients may help themselves freely. They must be burned before they are completely dry. Another good way is to leave out a large supply of ordinary cotton handkerchiefs, and have a tub of water in the sanitary annexe into which the patients are taught to throw them after being used once. They can be removed and boiled daily. This free supply of handkerchiefs is, however, somewhat of a danger where the phthisis ward contains suicidal patients, and the attendant needs to exercise extra vigilance.

(13) *Animals*.—If one disallows cats one gets mice and rats, and these are as potent carriers of tubercular infection. Rats can be eradicated from a new building, but I have yet to learn how mice can. In general it is better to have cats in the general wards, but to exclude them from the phthisis ward, trusting that the mice will take some time to discover the local exemption. About flies I can say nothing; we rarely see one at Cheddleton, as it is a new building, with no trees or large bushes about, exposed to all winds, and generally cold even in summer.

The above are the points in combating tubercle to which my attention has been principally drawn. No doubt there are other methods of infection, and I have said nothing about milk and meat, as Koch's opinions are still under discussion by the Royal Commission. In any case the patients in the average pauper asylum have little milk which has not been boiled, and I do not attribute much infection to it. No doubt also other members have solved the above problems in different and often better ways, and it is in order to stimulate the expression of their views that I have ventured to bring forward the subject at this time.

(1) Paper read at a meeting of the Northern and Midland Division at York, May, 1905.

On the Use of Hypnotic Drugs in the Treatment of Insomnia. By W. MAULE SMITH, M.B., M.R.C.P.E., Assistant Medical Officer, W. R. Asylum, Wakefield.

ANY drug which interferes with the workings of the higher cerebral functions is rightly regarded with suspicion, and the question of giving or withholding it is always open to doubt. Hence the difference of opinion with regard to the administration of hypnotics. In prescribing them the advantages have to be weighed against the disadvantages, and when that is done, and the former are in excess, then whatever disadvantages there may be have to be accepted since they are in the minority.

Although the question is not so simple as this in routine practice, it forms a general principle which can be modified to suit individual cases. In insomnia, more than in almost any other condition, the treatment has to be guided by the particular circumstances present, as it can only be regarded as a symptom which, with others, is present, and is caused by some underlying morbid condition. This is sometimes obvious, but is very often the reverse. The classifications that have been offered are mainly lists of the various diseases in which insomnia is a marked feature; and until the changes which take place and which result in sleep are better understood, such classifications serve to keep in mind those diseases which are associated with sleeplessness.

Of the actual, demonstrable changes that occur within the cranium and body generally at the onset and during the period of unconsciousness due to sleep, the most important are those which relate to the blood and the state of the blood-vessels in the skull and other parts. The fact, well established by Hill, Howell and others of a fall of blood-pressure within the cranium at the onset of sleep goes far to explain the condition. How influences are brought to bear on the medullary vaso-motor centre, and what those influences really are, is the question which is unsettled and most difficult to demonstrate. The changes incident on fatigue are the most likely conceivable causative factors in the production of physiological sleep. That these changes are brought about by continuous stimuli proceeding from the skin surface and acting on that part of the vaso-motor centre which controls the terminal circulation in

the skin, thereby inducing a dilatation of these vessels, is to leave out of account all psychical phenomena. The same reason also prevents the acceptance of the changes being due to a relaxation of the vessels of the splanchnic area and a consequent withdrawal of blood from the head.

From the effect which the various mental states have on the skin circulation there must exist a very intimate relationship between those psychical conditions and the mechanism for the control of the peripheral circulation. What this interconnection is, is not known; but that there is an obscure relationship between the two cannot be doubted, and is expressed by the term "inhibition"; since, when the mind is intensely occupied with some emotion, or the attention is fixed, that restraining influence is removed, and as a consequence various degrees of relaxation or constriction of the peripheral vessels take place. The influence exerted seems to be the same as that seen in other involuntary mechanisms. It is also supported by the frequency of insomnia in those whose mental state is in disorder, and also by the effects of hypnotics. These remedies are always more potent when they cause a lowering of the blood-pressure; but in the case of those drugs, *e.g.*, paraldehyde, which have no appreciable depressing effect on the circulation, their action must be exerted elsewhere. On the other hand, those drugs, *e.g.*, the higher alcohols, whose principal effect is the reduction of blood-pressure, have little or no hypnotic action, so that it does not follow that if a drug acts chiefly as a blood-vascular depressor it is a good sleep-producer.

But it might be urged that those drugs, although they reduce the blood-pressure, may not induce the same alterations in the calibre of the vessels as those which occur in natural sleep. In the case of amyl nitrite, the peripheral circulation is reduced in rate owing to dilatation of the vessels, but little or no coincident sleep results. Whether this is because the vessels within the cranium are dilated as well as those at the periphery is uncertain; but since there is a fall of blood-pressure it must affect the brain vessels, and so cause at least a slowing of the stream, which induces the same result as an anæmia.

It is well known that the common action of all sleep-producing drugs is an interference with the higher cerebral functions, and that those which have this action as little

mixed up with other actions as possible are the agents which induce a sleep most approaching the natural; and that other drugs which not only do this but also give rise to changes in the state of the blood-vessels are especially attended with more or less discomfort when their primary effect has passed off and the waking state supervenes. It is true that drug sleep differs much from physiological sleep, but the two cases are on a parallel, and the essential changes are the same in the one as in the other. Where the essential difference between the two comes in is in the inability of the parts acted upon by the drugs to free themselves from the enforced restraint due to the lingering effect of the hypnotic: the degree of this effect varies with the constitution of the drug and the dose prescribed. The action of such drugs aids greatly in the conception of the processes primarily concerned in the production of natural sleep, and indicates that these lie in the psychological realms.

There is only one conceivable prime factor in the causation of natural sleep, *viz.*, fatigue. There are two points of view from which the effect of this may be regarded: (1) alteration of the nerve-cell elements themselves, (2) alteration of their environment. From either standpoint there is a common result; but doubt may arise as to which is the more important, although probably both factors play a part.

During work there is a continuous molecular activity present in the cells concerned; as a result *effete* products are eliminated, and are carried off from the bodies of the cells. It probably happens that these products have an immediate effect upon the cell and impair its activity by inducing an increasing paresis and a consequent diminution of molecular activity necessary for the proper carrying on of its function. Of course, the greater the strain on the cell the more marked this is and the sooner will the effort cease. In order that the effects of activity may pass off rest is required, and if the condition is extensive the shutting off of these parts and the consequent cessation of functional activity removes the influence from the lower centres and the subject passes into a state of sleep. Those mechanisms within the brain which by their activity maintain consciousness are probably more easily fatigued than any of the lower centres. Any sustained mental effort, as the close application of the faculty of attention, quickly leads to fatigue, as is experimentally shown by the increasing number of errors in mental

exercises, or clinically by a feeling of lassitude. The power of endurance, of course, varies in different individuals and the onset of fatigue, as a consequence, also varies; hence in different subjects more or less effort can be undertaken without need of time for recuperation. By frequent repetition and by training, the onset of fatigue may be, within limits, delayed.

The same applies to fatigue from active physical exercise, but it is probably not so much fatigue of the muscles as fatigue of the higher cerebral faculties. Were these to be strained to as high a point of tension as the muscles during prolonged physical effort, fatigue would result in a much shorter time. This is well shown in the case of skilled athletes as compared with those unskilled. Given two such of the same degree of physical fitness, fatigue occurs much sooner in the latter than in the former. It is probably not so much due to primary effect on the muscles but to a fatigue from concentration of the attention.

It might be maintained that if fatigue of the psychical realms is a primary factor in the production of sleep and a lowering of blood pressure is a secondary phenomenon, the curve of intensity of unconsciousness due to sleep would follow the curve indicative of the vascular state. Although there is a tendency in this direction, especially in the initial stages, as Howell has pointed out, the two curves vary very greatly. The curves of Piesbergen, Mönninghoff, and others indicate that unconsciousness is not deep during the first hour; that at $1\frac{1}{4}$ hours it becomes deeper and reaches its maximum at $1\frac{3}{4}$ hours, then slowly becomes shallower for $2\frac{1}{4}$ hours; at the end of $5\frac{1}{2}$ hours it again becomes deeper and finally passes off. Howell's curve of the blood-pressure shows a steady fall for the first 2 hours, when it reaches its lowest level and remains so for 4 to 5 hours; then it gradually rises, until during the last hour it rapidly approaches the pressure of the waking state.

I do not know what the conditions were under which the experiments for the ascertainment of the sleep intensity were made. The results obtained by Kohlschutter differ from those of Mönninghoff and Piesbergen in the initial stages, for the former observer found that the depth of unconsciousness increased very rapidly during the first hour, but the latter found that it was so slight as to be unable to be measured by their methods. The difference of results may be due to a difference

of the subjects of experiment and also to the degree of fatigue present. Clinically it is as a rule observed that after great fatigue the period of deepest sleep is during the first and second hour, that it varies in the same person, and that it seems to depend directly on the amount of fatigue present. It is of interest to compare the initial effects of trional, as found by Hans Haenel, and those of early fatigue, *viz.*, diminution of the power of calculation, increase of the time in choice reactions, increase of faults and omissions in reading and diminution of the rapidity of writing. Such results strongly indicate an involvement of the same structures by agents which primarily have a similar action.

All degrees of pathological insomnia imply a lesion, greater or less marked, of the psychical realms; and since natural sleep is probably the result of changes incident on healthy fatigue of these realms, it follows that sleeplessness is the result of some interference with their physiological discharge of function. And I believe that however variable the cause may be, it ultimately acts always in the same way. For convenience these causes may be classified as (1) physical, (2) mental.

In the case of anything which stimulates to an excessive degree what must be a small area of consciousness, the attention is kept so fixed that the healthy working of consciousness is interfered with, and by reason of this removal of the influences of the higher centres is prevented. In the case of pain from any cause, or febrile states, it might be said that the causation of these may give rise to the insomnia, especially if that be due to recognised toxic agents. To a certain extent this is true, but it does not hold good in every case, and they are probably only auxiliary causes.

Insomnia from physical causes varies in its intensity within wide limits; it may be slight or it may be so severe as to lead to the production of mental disorder. So long as there is only temporary interference with the psychical realms, these are able to meet the interference and are able to accommodate themselves to the condition. Where, *e.g.*, the painful state is not able to be removed, the excessive fatigue alters the healthy working, and as a result mental symptoms develop. This was shown in a case which came under my notice lately in a healthy man who developed neuralgia over the left eyebrow; the pain increased in severity; conjunctivitis, frontal herpes, great swell-

ing of the eyelids, and occlusion of the eye followed. At first the sleeplessness did not interfere with the cheerfulness of the patient, later he developed great irritability and fretfulness and became quarrelsome. With a persistence of the pain emotionalism and other signs of hysteria became prominent; finally hallucinations of hearing, delusions, and ideas of suicide showed themselves and continued until the pain passed off. With its discontinuance sleep was re-established, and the mental symptoms passed off and did not return, although the convalescence was very protracted.

The case is illustrative of the degree of disturbance that can be set up by the natural consequences of insomnia and of the way in which pain as a causative factor produces it. The excessive stimulation of the attention at first did not in any distinct way affect the mental state; later the interference of the normal interworkings of the cerebral factors was so great that the symptoms of mental unsoundness developed; they passed off on the re-establishment of sleep. That extraneous toxic agents did not play an active part in the insomnia appears to be borne out by the fact that removal of the most marked symptom was followed by sleep. Again, in the case of febrile conditions which are due to toxic causes, sleeplessness is not necessarily a prominent feature so long as there is no attendant outstanding bodily symptom. For example, in a case of typhoid fever with a temperature of 103° or 104° the patient sleeps most of the night; or in the case of late phthisis insomnia is not very prominent unless the patient is disturbed by a fit of coughing; and in many other conditions the same holds good. So long as these are not attended with painful or other irritating feelings which keep the attention forcibly strained on the part, insomnia is not present.

The purely mental causes, *e.g.*, worry, grief, anxiety, act apparently in the same way, by a continuous stimulation of the processes which give rise to them and secondarily on the consciousness in general. When sleeplessness arises from continued mental work the areas which have borne the exertions come to act so automatically that no effort of the will can immediately stop them, and a temporary period is required for this to gradually assert its sway.

To the sleeplessness of established mental disease is a further step and only implies a much more widespread lesion of the

psychical processes by which the various disordered mental workings are evidenced. It does not signify whether the ascertainable causes are toxic, autotoxic, or the result of gross brain lesion. The result is the same, *viz.*, a breaking of the psychical workings, which maintain a healthy acting mind, and a consequent inability of the higher to control the lower centres.

Turning to the treatment of insomnia, it must be regarded as one of the chief, if not the principal symptom which requires to be overcome, for in the mentally sound its persistence may lead to complete mental breakdown, and in the subjects of mental disease it aggravates the condition and is followed by a greater degree of physical and mental prostration than almost any other symptom. Two principles have to be followed, *viz.*, (1) removal of any condition which tends to its aggravation; and (2) rest. In many cases where no gross signs of mental alienation are present the former is usually all that is necessary, but where there is established mental disease the removal of the cause is often not sufficient.

Hypnotics may be divided into two classes—(1) indirect, *e.g.*, physical exercise, baths, massage, dieting, tonics; (2) direct, *e.g.*, fresh air, drugs.

For insomnia associated with physical conditions drug treatment is not as a rule required, from the fact that the mental processes are probably unaffected, except for the strain put upon them by their constant direction to the seat of disease. In the majority of cases I consider their administration harmful—not from the actual sleep they produce, nor from their effect upon the heart especially and on the organs generally—but from their after-effects upon the nervous system. Their action in impairing mental acuity is aggravated by the presence of the physical illness, and as a consequence the patient is rendered worse rather than better, by reason of the addition of a cause for impairing the maintenance of an already weakened psychical state. Although this is a rule which should be followed, there are cases where it should be departed from, and where it becomes advisable to use hypnotic drugs. When the insomnia is persistent and from its effects mental symptoms are beginning to appear, their use is indicated, and they ought to be given in addition to agents calculated to remove the cause.

When sleeplessness occurs in individuals whose mental state is still intact, *e.g.*, in subjects of neurasthenia, drugs ought to

be withheld as long as possible. The essential feature of such cases is the marked degree of subjective concentration which betokens an enfeebled, but still intact, mental state. If by encouragement the patient can be made to concentrate the attention on some healthy pursuit which will involve a use of the large voluntary muscles, new channels will be opened up, and those paths traversed in obtrusive subjective consciousness will fall into disuse and a healthy mental state result. One of the best ways of bringing this about is to get the patient to take an interest in physical development. The exercises not only improve the muscular tone, but also strengthen self-will power, which is so lacking in these subjects.

In patients who are the subjects of mental disease the use of hypnotics can only be regarded as an important and necessary part of the treatment. As the symptoms of insanity are the manifestations of fractured psychical mechanisms which depend upon various conditions the treatment should be directed, not only to removing the cause, but to keeping the parts at rest in order to allow of a restitution of the healthy balance. Although indirect and direct hypnotics ultimately may act in the same way, and the advocates of each may place more reliance on one than another, it is perhaps needless to mention that a happy combination of all of them is the best policy to be pursued in any given case. With regard to chemical restraint, it is open to the objection that it is liable to more abuse than other methods; nevertheless, it is of great value, both in recoverable cases and in those where this cannot be hoped for.

Keeping in view the fact that the symptoms in general of insanity are due to the removal of the inhibitory influences of the higher realms and that insomnia is an illustration of that disorganization, it follows that if these pathologically working parts are kept at enforced rest for temporary periods there will be a greater chance of their recovering their normal activity and influence. This applies very specially to acute mania and melancholia, both of which states always exhibit marked insomnia with, on the one hand, motor or sensory excitement and, on the other, depression. In such cases after enforced sleep for a few nights the excitement frequently subsides and the patient passes into a state of convalescence attended with a return of natural sleep, as is illustrated in the case of a youth, æt. 20, the subject of a sharp attack of acute mania with suicidal

impulse. He was markedly incoherent, had many delusions and hallucinations, was very noisy, and for the first two nights after admission did not sleep at all. Veronal in 10-grain doses was given on three successive nights, and induced sleep for about six hours each night. Thereafter the patient slept well without the drug, and the excitement abated.

In preventing a case of acute mania from passing into a condition of delirious mania, the early administration of hypnotics is of service.

The insane states, which occur about the age of 50, often appear to be peculiarly amenable to chemical treatment. Insomnia with depression, accompanied by delusions of suspicion and of fear, with impulses towards suicide, frequently gets well by this means when it is next to impossible to treat the patient otherwise.

In senile insanity drugs serve a double purpose, for they not only give the patient sleep, but by their calmative effect they prevent the patient sustaining self-inflicted injuries which otherwise result. Also in maniacal states which result from chronic alcoholism, where the alcohol is suddenly stopped, where there is much motor excitement, noisiness, sleeplessness, and delusions of grandeur, when the general health is weak and obviously failing, rest by hypnotics is of the first importance.

If there is any doubt about the advisability of giving hypnotic drugs to patients who are suffering from recent and probably curable insanity, there can, I think, be none about their exhibition in cases where recovery can no longer be hoped for or where the case is incurable from the commencement. Where there is insomnia with persistent excitement and noisiness, temporary enforced quiet is not only a kindness to the patient, but is conferring a boon on the others who are within the radius of the disturbance: for the constant irritation is attended with harmful results to those who are in a state of convalescence.

With regard to the individual drugs, I cannot as yet add anything to what has been previously noted. Clinically, veronal, of comparatively recent introduction, has given uniformly good results in cases of the milder forms of excitement and in cases of melancholia. In chronic or very severe mental exaltation it has not been attended with such good results. No disagreeable after-effects have been noted, and the sleep induced is quiet and said to be refreshing. It acts in about a quarter to half an

hour, and the duration of sleep has been found to have an average of six hours after 10-grain doses. As a simple hypnotic I think it might be placed on the same plane with paraldehyde, and it has the advantage over the latter in that no disagreeable taste or smell is left.

(1) Bradbury, *Lancet*, 1898, p. 1864; Berkeley, *Johns Hopkins Reports*, vol. vi; Howell, *Journ. of Exper. Med.*, vol. ii, No. 3, 1897; W. Ford Robertson, *Text-book Mental Diseases*; Hare, *System of Therapeutics*, vol. iii, p. 337; Sawyer, *Practical Medicine*, 1902; Roy and Sherrington, *Journ. of Physiology*, 1890; Bayliss and Hill, *ibid.*; Clouston, *Text-book Mental Diseases*, 5th edition; R. Jones, *Lancet*, April 29th, 1905.

DISCUSSION

At the Quarterly Meeting in London, May 18th, 1905.

The PRESIDENT said the Society was much obliged to Dr. Maule Smith for his paper. It dealt with a subject which was always fresh, for alienists could always find plenty to say about sleep and drugs. He hoped a large number would take part in the discussion.

Dr. ROBERT JONES remarked that it might seem bold for him to rise first, but he did so with the object of tempting Dr. Blandford. In his student days Dr. Blandford's was practically the only text-book for the London University Examinations, and he believed that Dr. Blandford up to the present day upheld the use of hypnotic drugs, which were so opposed by some distinguished members of this Association. He had read the article of that authority in *Quain's Dictionary of Medicine*, and found he considered—and, as he thought, rightly—that hypnotic drugs were essential and most useful. Members had heard in that room a great outcry against soporifics and hypnotics, and against the general use of sleeping medicines. Not long ago that subject, which the President had just remarked was ever fresh, was fairly threshed out by Dr. Rayner, the trend of whose remarks was emphatically against the use of sleeping medicines. He (Dr. Jones) had used at Claybury the sleeping-chart which was suggested to him by Dr. Hyslop, of Bethlem Hospital, and the thing which struck him more than anything else was that though on admission there were very few hours of sleep, yet in from one to three weeks the sleep became normal if the case was to get well. It was a striking testimony to the use of the chart as a means of diagnosis. Dr. Maule Smith had gone into the physiological causes of sleep, and had quoted Leonard Hill and others, but there was one point about which he did not know whether much was known, and in that connection he was glad to see Dr. Savill present, for he had been working on the subject, *vis.*, "Arterial Sclerosis." He (Dr. Jones) had had his own attention for some time drawn to the examination of *post-mortem* records, and was inclined to think that arterial sclerosis was a very important condition, and that it was at the bottom of much of the disturbances as regards sleep and restlessness seen in asylum practice. In his own opinion the mental distress met in senile cases was a very definite result of arterial sclerosis, and he was not sure that the effect of alcohol—which all used as a drug with a great deal of circumspection, and which he believed was often abused and prescribed beyond physiological limits—was to immediately dilate the arteries in the cerebral cortex, and in that way to diminish restlessness and to induce sleep. Langley has shown that the difference between vaso-constrictor and vaso-dilator nerves lies in the mode of ending upon the unstriated muscle-cells of the arteries, and these latter are possibly affected or selected by alcohol. He had repeatedly used small doses of alcohol merely as a hypnotic in the exhaustion of puerperal insanity and in senile cases of great restlessness. He had a case fresh in his mind in which a patient, who was extremely restless on admission and had not been taking his food, was fed twice daily by means of the tube and had half a pint of stout given him in the evening before bedtime with

marked benefit. Sulphonal he regarded as a deadly poison to the neurones, and he thought he had seen incurability follow the prolonged use of it in full doses. There was a great deal in what Dr. Maule Smith said about chemical restraint. What was to be done with an extremely aggressive, maniacal, and furious patient, who was absolutely certain to kill somebody, or harm himself unless restrained? Something must be done, and the alternative was to put him under sulphonal. He had done so in such cases, but could not say he had any other feeling but regret for it, though it had been a matter of absolute necessity. There was something in sulphonal which seemed to be lethal, if not very destructive to the normal activity of the neurones. He could not pretend to be able to say what it was. It disturbed the neurones and also the general metabolism, for in many cases the patients had high-coloured urine after it. He had a case which was admitted last week, under restraint, a journalist, who was very furiously maniacal. He had not slept for several days before admission. He (Dr. Jones) administered 10 grains of calomel, which he did not consider was too large a dose for a maniacal patient; he had given 6 grains more than once without effect, and even 10 grains without marked effect, and had had occasion to repeat the same quantity before effect was noticed. He had never had reason to regret giving large purgative doses. In days gone by he had even used croton oil, but that had not been employed in the practice of his colleagues and himself at Claybury for some considerable time, certainly longer than twelve months. The man just referred to, the journalist, was given 10 grains and was fed, and after the first night he slept several hours each night, and was now practically convalescent. Still one distrusted those rapid convalescences because there was almost invariably a relapse. He desired to say one more word about the senile cases. He believed a great deal of the cause of the talk about accommodation at the present time was owing to the sleeplessness of senile cases, and the question was before the Lunacy Commissioners and others whether it was right to send senile cases into asylums. He held that senile cases were properly sent there, for at the asylums there were plenty of nurses to look after them. Such patients were very sleepless, restless, agitated, resistive, and quite unreasonable. They would frequently get up in the night, wander about, get to others' beds and pull the bedclothes from somebody, who, in self-defence or as an act of retributive justice, would push them away, and they thus received serious casualties, falling down and possibly fracturing their ribs or thighs. He had at the present time more than one unpleasant recollection of the restlessness of senile cases with serious results and consequent anxious inquiry. In some cases of that kind he had tried opium with marvellous results. It was well known that different drugs had different selective effects upon various parts of the nervous system; for instance, the effect of strychnia on the spinal cord was well known, and of chloroform, opium, and chloral on the cortical centres; curare paralyses the terminal arborisations of motor nerves, and nicotine acts on the pre-ganglionic sympathetic nerves without affecting the integrity of the nerves. He would be glad to hear Dr. Blandford's opinion on the question, most important, he thought, of hypnotics, as Dr. Blandford's writings on that subject had always interested him, and he was an authority of great experience and commanded much respect. Dr. Maule Smith had referred to the value of exercise as a hypnotic. He (Dr. Jones) had tried sending out some of his acute patients into the gardens with a nurse on either side of them, and he could not help thinking that it was possible to overdo exercise and that fatigue was a condition which might cause restlessness as well as sleep. On the other hand, to go to the opposite extreme and place such patients in bed for prolonged rest was not good for them. Doubtless the best results were obtained in the happy mean, and the selection of suitable cases needed long, exact, and extensive experience. Fatigue was a very important subject, and had not been properly studied in this country. Some Italian physiologists had been working at it, and if any of those present wished to carry the matter further, he recommended them to read an article on "Fatigue" in a recent number of the *Quarterly Review*, by Sir William Gowers. It was an extremely well-written summary of the question of exercise and athleticism. One could not fatigue an ordinary nerve—it was absolutely indefatigable—but one could easily fatigue the central neurones. Schoolmasters and teachers complained sometimes of the inattention and inaptitude of their pupils after long journeys to and from school, or even after exercises, but possibly the fatigue was theirs from over-

work and not their pupils'. The fatigue products seemed in some way to affect the delicate constitution of the nerve-cells. Another class of cases where hypnotics were invaluable was the sleeplessness of puerperal insanity. He had seen cases, outside the asylum, where the well and thoughtfully administered hypnotic in puerperal cases had resulted in preventing an attack of insanity. Of that he was certain. For hints in such cases he had again to thank the teaching of Dr. Blandford. Finally, he found in some cases that anæmic girls admitted into asylums were extremely restless and sleepless, and that the administration of iron, more especially if accompanied by chlorate of potash, acted in some way as a hypnotic. He had given it for a comparatively short time in each case, and there had been a great benefit in regard to these symptoms. He did not believe that any permanent harm would result from giving a general paralytic sulphonal, for the disease itself was fatal, but he did not think that any other drug was of much value in these cases for the restlessness, which was a condition that was inseparable from other symptoms in general paralysis. The subject was a very important one, and extremely practical, and he was glad that Dr. Maule Smith had raised it. Medical officers in asylums were every day face to face with the problem of giving hypnotics, and the great point to be careful about was the proper selection of cases, and to avoid going too far in their administration. He felt sure that much interest would attach to the discussion which would ensue upon this very suggestive paper.

Dr. BLANDFORD remarked that, as Dr. Robert Jones had already reminded the meeting, it was not very long since the subject brought forward by Dr. Maule Smith in his present paper was debated at considerable length in that room. He had not altered his views at all since then. He agreed that there was a good deal of truth in what Dr. Rayner said in opening the discussion to which he had referred, but he thought that gentleman carried the matter rather to an extreme, as he understood he did not favour giving narcotic drugs at all. There could be no doubt that all ought to do as he had recommended, namely, see that the digestive organs, and all parts of the eliminating apparatus were in good order, and regulate the medicines administered accordingly. Still, he was as certain as that he was in the room that in a considerable number of cases which he had seen the administration of narcotics had saved people from drifting into insanity. And it should be remembered that he saw cases at a much earlier stage than did those gentlemen who saw them only in asylums. He could well understand that a man in an acute state of mania, by the time he reached the asylum, had his straps and cords removed, and was placed in a comfortable padded room, was very likely to go to sleep without any drug being administered. He would not dream of giving drugs to such a case on first admission. One would like to see that the patient's bowels were open, and that he was put into proper condition, before giving any powerful drugs, because it was well known that it would be of no use in such a case to give a trifling drug. He could quite understand Dr. Jones' remark as to a large dose of calomel having a very beneficial effect. In the old days it was customary to give calomel, and it used to be said that it was given to prevent or check inflammation. After that, or alongside of it, one gave calomel as an aperient, and that was continued still. But nowadays one attributed to it something more than an aperient action; mercury in all forms was now held to have a certain antiseptic effect. In insomnia he believed the antiseptic effect of mercury was very important, and should be remembered as much as the aperient effect. At a consultation some time ago he had a talk with Sir William Broadbent on the subject, and Sir William said he had often ordered people a blue pill, and the patients were afterwards under the impression that what he had prescribed was a narcotic medicine. The blue pill had a beneficial effect on the toxins in the body, and consequently the patient went to sleep. He had certainly himself seen that result, and he had seen a great many patients who were benefited by a blue pill, quite apart from any aperient action which it might produce. Of course, the selection of the particular drug to be given was a matter of very great importance. Sulphonal he looked upon as exploded, and had not ordered a dose of it for a very long time. There were better drugs available than that, though in the old days when he began practice there were no such drugs at all. There was then nothing use which could be called a narcotic except opium, and, although that was very beneficial in certain cases of melancholia its administration did infinite harm in maniacal and excited cases, as probably many present had had the oppor-

tunity of seeing. It used to be the custom to give it in delirium tremens. He recollected a case of acute mania that came under his care just at the time that subcutaneous injection came into vogue. The patient's friends had heard about it, and there was a certain doctor in London who practised subcutaneous injection—it was not generally carried out at that time. That doctor came and injected the lady subcutaneously. As a result she slept for some twenty minutes and then awoke more excited than ever. She died of opium poisoning, a statement he had no hesitation whatever in making. She had all the symptoms of it, and he believed that if the injections had not been employed she would have got well, as so many similar cases of excitement did. One drug which was not now mentioned so often as formerly was hyoscine. He believed it to be a dangerous drug, but would be interested to hear the experience of his brethren in its use at the present time.

Dr. FLETCHER BEACH said he thought much of the observed difference of opinion in regard to the use of sulphonal depended upon the dose given. The probability was that in asylums sulphonal was given in much larger doses than in the treatment of ordinary nerve cases. He constantly used sulphonal for nerve cases, but the dose he gave never exceeded 15 grains; often it was not more than 10 grains. He had used it for cases which were obviously verging on insanity, and with great benefit. After giving that for a week sleep was generally restored. He used a daily dose of not more than 15 grains, the medicine usually being given at night. Perhaps Dr. Robert Jones would say what doses were usually given in asylums. He had administered it in many cases in which the heart's action was very violent, and in others in which the patient was breaking down. He did not find that veronal had the same effect as sulphonal.

Dr. ROBERT JONES, in reply to Dr. Fletcher Beach, said he began with 20-grain doses, and he had given it three times a day. That was in cases of chronic mania.

Dr. MERCIER said that a good many years ago Huxley wrote a very interesting article on what he called "Administrative Nihilism," in which he ridiculed the doctrine of *laissez faire*. Huxley considered that it was pushing that doctrine much too far to restrict the State and allow the individual to do as he pleased. He (Dr. Mercier) was not at all sure that there had not been a wave of therapeutic Nihilism in their speciality. Patients were sent to asylums in order to be detained under care and treatment. Yet, as soon as they got there, the cry was raised that they must not be restrained, that all restraint must be removed. What in the world were they sent to asylums for except to be restrained? And detaining and restraining were two sides of the same thing. If the alienist were not to restrain his patients, if they were to be treated by the open door, with all doors open, he did not see why they should not just as well be in the world outside. What did such patients go there for unless because they needed restraint? In the same way it was considered by some that not only must they not have mechanical restraint, so called, but that they should not have chemical restraint either. Why not? They were there to be restrained, and if it were considered undesirable that they should exercise their activities in every way that they wished, they had to be restrained, by hook or by crook, either by locking them up, or by getting people to hold them, or by putting strait-waistcoats on them, or by drugs, or in some other way. It was because their activities were harmful to themselves and to other people that they were put into asylums. Therefore he had no sympathy with the doctrine that hypnotic drugs were never to be given for purposes of restraint. If a patient was excessively excited and violent, and was wearing himself out, and thus killing himself; if he was dying of exhaustion in consequence of his incessant activities, he had to be saved from killing himself because of his disease. The only way to so save him was by diminishing his excessive activity, and if that could be done by drugs as well as or better than in any other way, one was neglecting one's duty by not using those drugs. Whenever he heard of chemical restraint a particular case was always present to his mind. A man became very acutely maniacal one day at some autumn manœuvres in which he was taking part. He was an officer. He was brought to him (Dr. Mercier) that afternoon acutely maniacal. He was given a dose of hyoscine, and in five minutes was fast asleep. He continued to sleep during the afternoon, through the night, and got up the next morning well. He had never had the slightest relapse. It was clear it was not alcoholism, but acute mania occurring with provocation in a person who was slightly predisposed to

mental trouble by heredity. It was not often warrantable to say one had cured a patient, but in the present case it was. He had also been surprised to hear that there was only one cause of normal sleep, namely, fatigue, for so he had understood Dr. Maule Smith. He would have thought there was another. If one looked round on the animal world it would be clear that though it was true that people went to sleep because they were tired, yet the chief cause of sleep was a full belly. He agreed with what Dr. Jones said about the influence of calomel, but there was the curious point that if the upper part of the intestinal canal were full it was extremely favourable to sleep, while if the lower part of that canal were full it was inimical to sleep. He thought that was the secret of the effect of Dr. Jones' 10 grains of calomel. He had particularly noticed that the patient who had the 10 grains of calomel had also been fed. And not only had that patient not slept for several days before he was admitted, but he had not eaten either. Yet Dr. Jones ascribed the soporific effect to the calomel and not to the food, which he did not think was fair to the food. He would forbear continuing the discussion except to say, with regard to enabling neurasthenics to take exercise by encouraging them to do so, one might just as well endeavour to induce hemiplegics to move their limbs by encouraging them to do so.

Dr. BEDFORD PIERCE said he felt he would scarcely be doing justice to an old friend if he omitted to say a word on behalf of sulphonal. He agreed with the general feeling that hypnotics should be sparingly used, and in his own practice they were very little used, perhaps even less than the general sense of the meeting indicated. But he desired to relate two cases which justified his application of the term "friend" to sulphonal. One was the case of an extremely restless woman, a case of mania, with wits enough to cause as much trouble as possible in the dormitory; she would get up in the night and turn everybody else out, and if she could not sleep herself would not allow anybody else to do so, and was generally a source of wear and tear to herself and others about her. The other was a case of violent mania, in a very strong woman. Manual restraint was therefore found to be a source of very serious trouble and difficulty, and the staff were becoming worn out. In both cases hypnotics were abstained from for a long time, but eventually 30 grains of sulphonal were administered twice a day at first, followed later by that dose only once a day. Both these patients recovered, convalescence commencing in about a week. One of them relapsed many months afterwards, and probably the other would. At any rate the effect of sulphonal in those cases had been very clear and decided.

Dr. CROCHLEY CLAPHAM said he thought a dose of medicine less cruel than 10 grains of calomel should be given. He was of opinion that the patient's condition should be inquired into before giving hypnotics. If the patient, for instance, had had typhoid fever, as he had had, a dose of 10 grains of calomel should not be given.

Dr. KINGDON said that he had administered hyoscine hundreds of times, and had never known any bad effect from it. It had always produced sleep in a few moments, certainly in five minutes. He believed there would be an absence of bad results if an average male person were given $\frac{1}{16}$ grain, and a female $\frac{1}{32}$ grain, of course hypodermically.

Dr. THOMAS D. SAVILL said that the arterial pressure did undoubtedly influence the effect produced by hypnotics very greatly. If before administering such drugs the arterial tension were ascertained, he believed much better results would be obtained than was the case at present. It was well known that the commonest class of insomnia was that met with in advanced life, and particularly amongst the subjects of arterial disease. Another thing which he would like to point out was, that a large number of hypnotics, if not all—and he had not been through the list—were those which did affect the arteries in some way, either in the direction of contraction or dilatation. There was the belladonna class, and the phenol-derivative class, all of which influenced the vascular condition.

Dr. CORNER said that in the discussion the questions of exercise and rest had been raised, and, as usual, the best method was the happy mean. His experience in the treatment of insomnia, especially in early cases, which had come under his notice a good deal, was that if the case had to be treated in the patient's own home it was necessary to give hypnotics, because one must secure quiet and rest for the people in the house. Such cases were much more difficult to treat at home. But if the case were under the care of a nurse, hypnotics could be dispensed with

in 50 per cent. If the case were under care under the doctor's own roof, where he could supervise the nurse and see the case frequently throughout the day, it could be got well without the aid of hypnotics in 90 per cent. of the cases. If he were asked what was the best hypnotic he would say a good nurse. If one had thoroughly competent nurses who were thoroughly efficient, he believed that by constantly keeping the stomach full, as Dr. Mercier had already said, sleep would be induced. It was well known that the whole of the nervous system was governed by habit, and if a person had suffered from insomnia for a long time and was developing sleeplessness, something must be done to break that habit, and in such a case, if a hypnotic were given for two or three nights, the habit would often be broken and the patient would go on all right. Several cases had been brought forward of patients who had got well by the administration of a single dose, but such cases were always very doubtful. For instance, a case came into Bethlem many years ago, a young girl with acute mania. There was a history of marked constipation, and she was ordered, on the first night, a copious enema, and with a very good result. As a consequence, she was sane twelve hours afterwards, and never looked back. Luckily no hyoscine or other drug was given in that case. If he found it necessary to give any hypnotic he at present used veronal a good deal. It was an interesting drug, because it was a product of urea, a combination of urea with other substances. Dr. Blandford had asked about hyoscine and hyoscyamine. Hyoscyamine about fourteen years ago was a most dangerous drug. Hyoscine was useful, but, like all others belonging to that group, it was apt to produce hallucinations where there was a breakdown or a threatened breakdown. That was more marked in the case of daturine. His purpose in speaking was to urge caution in the administering of hypnotics.

The PRESIDENT said Dr. Maule Smith had stated he had never seen any disagreeable after-effect from veronal. He (the President) could not say he had observed toxic after-effects, but he had heard many people who were not insane complain of extreme weariness and exhaustion after veronal. Dr. Robert Jones had said he thought sulphonal was a deadly poison to the neurones. But all the drugs which had been mentioned were deadly poisons to something, and unless they were used with strict moderation and care, they were, at some time, dangerous to the patient. But he felt sure that sulphonal was a drug which should not be entirely relegated to the scrap heap; that it had its uses. Although opium was not, as a rule, beneficial in cases in which there was excitement, it could not very well be put into disuse. Therefore he thought it a mistake to say that any particular drug should never be used again. In consultation one constantly saw acute delirious or maniacal cases in which the general practitioner had given chloral and morphia, and they seemed to have been mostly treated by those drugs, no others seemed to be known to the general practitioner. Again and again he had seen excitement increased by giving chloral, or by morphia. If the patient happened to be showing symptoms of morphia poisoning, and sulphonal were substituted, the patient quickly got well. He recollected a case in which an acutely maniacal girl had been treated with hyoscine, three times a day he believed it was given; she developed the most vivid hallucinations, which were undoubtedly due to the drug. He ordered sulphonal to be given once a day instead of the hyoscine, and the attack passed off in a week.

Dr. MAULE SMITH, in replying on the discussion, said he agreed with what the majority of the speakers had said in reference to sulphonal. That drug was very good in certain cases of chronic excitement, chronic mania, and the uncontrollable restlessness which was present in general paralysis, when the patient was knocking himself about and running into danger. With regard to hyoscine, he desired to mention a case which came under his notice lately, one of acute mania. That case was prevented from becoming one of marked delirious mania by the hypodermic administration of hyoscine. As to the other parts of the treatment, the stomach was kept as full as possible with egg and milk, and beef essence. The food did not seem to induce sleep at all. The disagreeable after-effects, dry mouth, etc., were the most marked feature. Food was an auxiliary cause of sleep, and the condition of somnolence was very much more marked after a day in the country than after a heavy meal. It was also aided, as had already been mentioned, by sitting in front of a fire, by which means the vessels of the skin were more fully dilated, resulting in the withdrawing of blood from the head. He had been much interested in hearing Dr. Savill's remarks on the question of arterial pressure.

The Insanities of Decadence. By GEORGE A. RORIE, M.B.,
Senior Assistant Medical Officer, Dorset County Asylum.

THE last time I had the pleasure of addressing a meeting of this Division the subject I discussed was the different forms of insanity met with during the period of adolescence, and it was suggested that it would be interesting to investigate the cases at the other end of the scale—that is, those connected with the incidence of decay and old age, and to compare them with the previous cases.

Looking back at the adolescent cases one noticed the common forms of mental disorder met with were: (1) cases of simple mania and melancholia; (2) recurrent cases; and (3) the cases of acute or premature dementia; and a noticeable point was the frequent occurrence of tuberculosis as a cause of death. In using the term “Insanities of Decay,” I am referring only to the insanities associated with the oncoming of old age and do not include all cases of general paralysis and dementia præcox, as has recently been done.

On turning to these senile cases, the first thing to fix was the period of life when old age was to be recognised as a factor in the case—as with the analogous question in the adolescent cases this was rather difficult to settle—but looking on the climacteric as a first indication, I took 50 as a starting-point in both sexes; no doubt by doing this many cases of insanity associated with the climacteric have been omitted, especially among women, but it was the most convenient plan to adopt.

Fifty may appear a very early age for old age to set in—if we except the remarks attributed to Dr. Osler—but besides the climacteric cases one finds several cases of true senile dementia, which is of course one of the most hopeless of the mental disorders of this period, starting at 50 or soon after and accompanied by all the usual bodily signs of senility such as grey hair, etc. Senile insanity has been divided into three kinds: (*a*) those cases in which there is no dementia; (*b*) those cases in which there is dementia accompanied by the psychoses; (*c*) those in which there is organic brain disease; while climacteric insanity is also separately described—the majority of cases being melancholic in type. As the ages vary in one description from 35 to 70 it must be difficult to make

an accurate diagnosis in such cases unless the history is accurate, and that is unfortunately uncommon; in the opinion of others senile insanity should not be separately described and classified, so it appeared the best plan to group the above, as they are intimately associated, and consider them together.

A series of cases was collected of both sexes from the starting-point of 50 years of age on admission, and they were divided up according to age into five-year groups—thus 50 to 54 was the first, 55 to 59 next, and so on.

Taking the cases as a whole and comparing the males with the females, one is at once struck by the prevalence of previous attacks and recurring cases among the females as compared with the males—the real recurring cases being markedly more numerous among the women—a point also noticed when the adolescent cases were dealt with.

As to the forms of insanity, these can be roughly divided into mania, melancholia, delusional insanity, and dementia, while there are other cases met with best described as partial dementia. One also meets with cases of general paralysis—up to and over 60—senile epileptic insanity and imbecility, the latter including cases of mental defect which did not show other marked symptoms till now.

Taking the cases in periods of five years onwards from 50, the percentage of admissions was much the same in both sexes and was roughly 25, 20, 15, 14, 12, 10 for the first six periods, though more women were admitted at the earlier ages and fewer in the more advanced—probably due to the earlier climacteric in women. There is then a continuous decline in the admissions as the age advances and no marked period where one could state that senile insanity predominated. When the form of mental disorder is examined—taking the first four periods, that is 50 to 70—one finds that melancholia predominates in the first two, *i.e.*, 50 to 60, and especially between 55 and 60 in both sexes—mania coming next, though the largest number of the cases of delusional insanity is in both sexes found in the first five years. After 60 melancholia and mania are about equal for a few years, and then these diminish and the number of cases of dementia increases; an interesting point, however, is that cases of delusional insanity without marked dementia are occasionally met with starting in the most advanced years.

Of the total cases about one third of the men were cases of melancholia and rather fewer of the women. This predominance of melancholia in the earlier years particularly is very much what one would expect ; the climacteric is recognised as having a marked effect on the whole system, leading to a changed aspect of life—so well described by Dr. Clouston—and giving a tendency to depression, often to suicidal tendencies, to the development of suspicions and delusions, and to the development of delusional insanity.

If we take melancholia as being most important, we may first note that the term melancholia is restricted by Defendorf to the cases of depression occurring at this period.

The cases here show the following characteristics : The incidence is usually gradual—if a full history be obtained—the general manner and behaviour of the patient are changed—he is dull, irritable, and the feeling towards relatives changes ; there is a loss of self-confidence on the part of the patient ; he feels unfit for his work, and this is followed by a loss of self-control shown by the various impulsive acts met with, the suicidal impulse being common and a homicidal impulse not uncommon. There is often an increase in the sexual feelings even in these depressed cases, and one often hears patients complain of the evil thoughts and suggestions which come into their minds.

These patients feel this loss of control and struggle against it. They often put the above ideas down to the Devil and pray to resist the Devil who suggests evil acts, suicide, and the desire to kill their children—often the ones they like most. Another sign of this loss of control is the screaming and almost hysterical attacks met with in some women.

The evil thoughts and suggestions above mentioned may pass into actual hallucinations of hearing, though these are most marked in the maniacal cases. As the patients become worse delusions develop, often referring to themselves, and are anxious in character—they believe a heavy debt is hanging over them, that bailiffs are in the house, that something awful is to happen to them, that their children are to be killed or burnt, while the familiar unpardonable sin is usually prominent. The delusions also often refer to the body and especially to the bowels. The bodily health is usually weak. Occasionally the disorder starts suddenly by suicidal attempts, but usually its onset is found to be gradual.

The causes given are usually various, worry being common ; hereditary predisposition is generally found in these melancholic cases.

The prognosis is fair, about 52 *per cent.* of the women recovering and about 31 *per cent.* of the men ; the women appearing to recover more quickly than the men—the duration varying from a few months to one or two years.

The maniacal cases present the well-known symptoms of noisy chattering incoherence, mistaken identity, great restlessness, and a loss of all ideas of their position ; they are restless and noisy at night, refuse to dress, and are destructive and violent at times ; hallucinations of sight and especially of hearing are commonly met with, and also fleeting delusions, and under the influence of the latter suicide is sometimes attempted. The most severe of these cases have been separately described as senile delirium.

They are most troublesome cases to deal with and are often in a very weak state of health and occasionally quickly die, but in spite of this the recovery rate is higher than in the melancholic cases, the rate being higher among the women again, but this is to a certain extent discounted by the tendency to relapse. Cases of recurrent mania starting in early life are of course met with during this period, but several cases of recurrent mania occur which start about 50, an example of which is an old lady, who started at 55 and had five attacks between that and 63, from each of which she recovered perfectly, the symptoms coming on rather quickly and being acute.

Besides these there are cases, half way between mania and melancholia, of confusional insanity and here described as partial dementia ; the cause in these cases is often shock from an accident or injury, such as a blow on the head, though alcohol also figures as a cause occasionally. The symptoms resemble those of concussion of the brain, only much prolonged—confusion, listlessness, and loss of memory, and they are more favourable as a rule.

Looking now at the delusional cases they appear to be more common among women than men ; the largest number of admissions is found in the earlier years, and they decline rapidly afterwards. They are usually marked from the first, though possibly some of the melancholic cases may develop

into this class; they are unfavourable as to recovery and hereditary predisposition is often found.

A certain number of marked cases are met with in the most advanced years and are characterised by the fixed and very absurd character of their delusions; these are usually of persecution to an extreme extent and are often expressed more or less incoherently, *e.g.*, that the patient is the daughter of the second God, has two bodies, one in a home down under, is troubled by witches, spirits, policemen, is a beast, is to be made into tinned meat, swallow elephants, etc. Hallucinations are very marked and appear to affect all the senses, the result being that these patients are often very noisy—scream and beat the doors of their rooms at night; the personality as a whole is much altered and they are usually irritable, abusive, and disagreeable. There is frequent variation in the severity of their symptoms. These probably include the cases described as presenile delusional insanity.

As to the cases of dementia there is not much to say; in some cases the condition is little more than the normal mental state in old age; it is met with in a severe form coming on gradually after attacks of the more acute disorders, but there are also cases of dementia which in the depth and extent of their symptoms resemble the cases of dementia præcox or the dementia of general paralysis. This form may start at comparatively early ages and more or less rapidly get worse, the dementia always deepening. One often finds that marked organic disease of the brain exists.

As regards treatment there is nothing particular to mention. The causes of death show great variety, but phthisis is uncommon. Organic brain disease and cerebral hæmorrhage are common, as also are heart disease and congestion of lungs, while cancer is not uncommon.

In considering these cases of mental disease, I have endeavoured to determine whether the various groups exhibit distinctive symptoms. One is struck by the marked prevalence of melancholic symptoms about the climacteric period, though I think it very doubtful whether the term melancholia should be restricted to these cases. Other interesting points are the greater recovery rate and the tendency to relapse and recur amongst women, the delusional cases amongst the aged, and the occurrence of acute symptoms in some imbeciles and epileptics at this period.

Statistical Observations on General Paralysis. By HARVEY BAIRD, M.D. Edinburgh, Assistant Medical Officer London County Asylum, Horton, Epsom; late Assistant Medical Officer Leavesden Asylum, Herts., and West Riding Asylum, Wakefield.

THERE is a fairly general opinion amongst those engaged in asylum work that the classical type of general paralysis is less frequently met with relatively than formerly. This may be due partly to an increased number of so-called atypical cases, and possibly also to cases now being diagnosed as general paralysis, either *ante* or *post mortem*, which were not formerly looked upon as such. With a view to finding out the frequency of the chief phenomena of the disease as it is now met with in asylum practice, the following data, both pathological and clinical, have been compiled. The cases examined were (1) all the male cases admitted to the West Riding Asylum, Wakefield, from January 1st, 1896, to December 31st, 1902; (2) all the male cases admitted to the London County Asylum, Horton, Epsom, from its opening in the early part of 1902 to March 31st, 1905; and (3) all the female deaths at Horton.

Pathologically, observations were confined to four points, *viz.*, the frequency of subdural false membrane formation, of cortical erosions on stripping the pia-arachnoid, of granularity of the ventricular ependyma, and of disease of the basal vessels visible to the naked eye.

Autopsies were made on 131 consecutive male paralytics at Wakefield in the above period with the following result:

Subdural false membrane . . .	43 or 30·5 <i>per cent.</i>
Cortical erosion . . .	73 or 55·7 "
Granularity of ependyma . . .	115 or 87·8 "
Diseased basal vessels . . .	70 or 53·2 "

The percentage of cases showing false membrane formation of the dura is surprisingly high, though it has always been admitted that general paralysis is associated with this condition more frequently than any other form of insanity. Bevan Lewis⁽¹⁾ gives 12 *per cent.* in 242 cases. I have included all cases with even slight rusty staining in the above category.

Adhesion of the pia-arachnoid with erosion of the cortex on stripping has long been regarded by many as the chief dis-

tinguishing pathological feature of general paralysis. Thus, in two well-known text-books, those of Osler (²) and Coats (³), it is stated the pia-mater tears the cortex on removal, leaving the reader to suppose this always happens. Clouston (⁴) gives the same impression. Lewis (⁵), in 241 cases, gives 77 *per cent.*, and Simpson (⁶), in 95 cases, 66 *per cent.* Lewis' observations were made a good many years ago, Simpson's published in 1899. In the cases I have recorded in the majority of instances the membranes were removed from the entire cortical area, but in some from only the left frontal and parietal. Consequently some few may have been overlooked.

It may, however, be safely asserted that 40 *per cent.* of cases show no cortical erosion. At the same time, there are a number of cases where the membranes adhere more closely to the cortex than in the normal state, though not tearing it on removal.

Granularity of the ependyma of the ventricles, especially the fourth, is so constant as to be, in my opinion, the most valuable *post-mortem* diagnostic sign in the majority of cases. It was present in 90 *per cent.* of 112 *post mortems* on male paralytics at Horton and in 100 *per cent.* of 19 female cases. Simpson (⁷) gives only 30 *per cent.* as showing this condition in the fourth ventricle, but probably has only mentioned those in whom it was of the marked, frosted-glass appearance.

Disease of the basal vessels occurred in practically the same percentage in Simpson's statistics as in the above.

The duration of the disease after admission to the asylum was investigated, 160 consecutive male deaths at Wakefield being taken. The average duration was found to be 13.9 months. At Newcastle City Asylum in 1900 I found the average duration of all cases admitted there in 35 years to be 18 months. The question arises how long the patients are affected prior to admission. Some few of the above were admitted in a fairly advanced state, but it will be observed that to bring the total period of the disease up to 2 years, it must be assumed it existed on an average for over 10 months prior to admission. Raencke, in 136 cases, found the duration 2½ years; Sprengler, in 337 cases, 2½ years in men, 3½ in women (⁸). My statistics refer to men only. They seem to warrant the conclusion that the duration of the disease is diminishing.

The age on admission appears to vary little. Of 202 male

cases admitted to Wakefield in 7 years, 40·6 years proved to be the average, and of 195 males at Horton 40·4 years. Of the females only the 19 cases who died were taken, 39·9 years being their average admission age.

The greater relative frequency of the disease amongst the married is well shown by the statistics of the Horton cases, *viz.*:

Married.	Single.	Widowed.
137	43	13

Thus 77 *per cent.* were married or widowed. Six, however, of the 19 females were single.

The relatively superior nature of the occupations of the males is also evident. Only 15 *per cent.* are classified as "labourers," whereas, taking for example all the admissions, including paralytics, for 1903 at Horton, 21 *per cent.* are "labourers." Most of the men had occupations involving a considerable amount of brain work.

As regards the mental state, I have classified the Horton cases as follows :

Those with grandiose delusions or excess of <i>bien-être</i> at any stage of the disease	101 or 52 <i>per cent.</i>
Those who exhibited simply a progressive dementia	59 or 30 "
Those who were melancholic and never had any excess of <i>bien-être</i>	33 or 17 "
Two cases died with acute mania without excess of <i>bien-être</i> being shown	2 or 1 "

Of the 19 females, 6 were grandiose, 9 simply demented, 4 melancholic.

Several cases were not grandiose on admission, some even melancholic, who afterwards became grandiose. All these are included in the first category. At Wakefield only 92, or 45 *per cent.*, of 202 consecutive male cases had excess of *bien-être*, the mental state on admission only being considered. Suicidal tendencies are by no means rare ; 14, or 7 *per cent.*, of the 195 Horton cases were so ; 48, or 25 *per cent.*, had hallucinations.

There is one source of fallacy here which must not be overlooked. Some cases are admitted well on in the disease, only exhibiting profound dementia. A certain number of these may have been grandiose or melancholic previously. Their number in the above list must, however, be very small.

From the above figures one must conclude that in the modern

type of case an undue sense of well-being is still present in at least half the cases. Clouston⁽⁹⁾ states that nearly one third are non-delusional in men and the majority in women. He, however, states that only 3 or 4 *per cent.* are melancholic. The melancholic type must, I think, be held to be on the increase.

The physical signs of the Wakefield cases were investigated in regard to oculomotor abnormalities, slurring of speech, and state of knee-jerks on admission. The results out of 202 cases were as follows :

Pupils unequal	91 or 45 <i>per cent.</i>
„ equal	100 or 50 „
„ not recorded	11 or 5 „
„ fixed to light (one or both) .	62 or 31 „
„ sluggish	96 or 47 „
„ normal	40 or 20 „
„ not recorded	4 or 2 „
Slurring of speech	159 or 79 „
Speech clear	33 or 16 „
Not recorded	10 or 5 „
Knee-jerks normal	39 or 19 „
„ absent	40 or 20 „
„ increased	95 or 47 „
„ diminished	25 or 12 „
„ not recorded	3 say 2 „

Where a difference is recorded in the right and left knee-jerks I have taken the one which appeared to show the greater abnormality.

The statistics in regard to pupillary reactions and state of knee-jerks correspond largely with those of Lewis⁽¹⁰⁾.

From the above the following conclusions in regard to general paralysis as now met with are drawn :

Pathologically—(1) Subdural false membrane formation, including rusty staining, is met with in at least a quarter of the cases. (2) The pia-arachnoid usually adheres to the cortex more firmly than normal, but erosions on stripping are absent in 40 *per cent.* (3) Granularity of the ependyma of the fourth ventricle is so constant as to be the main *post-mortem* diagnostic feature of the disease.

Clinically—(1) The average age on admission to asylum is about 40 years. (2) The average intra-asylum duration of the disease is about 14 months, and is shorter than formerly.

(3) The disease is relatively still much more common in the married or widowed. (4) The occupation of the males is usually a relatively superior one. (5) Undue sense of well-being is present in a small majority of the male cases, but is less common than formerly in cases diagnosed as general paralysis. (6) Melancholia, delusions of persecution, and suicidal tendencies, are more common. (7) Eighty *per cent.* of the cases on admission to asylum show oculo-motor abnormalities, or slurring of speech, or abnormal reflexes.

(¹) *Text-Book of Mental Diseases*, p. 492.—(²) *Principles and Practice of Medicine*, p. 961.—(³) *Manual of Pathology*, p. 760.—(⁴) *Mental Diseases*, p. 409.—(⁵) *Text-book of Mental Diseases*, p. 496.—(⁶) *Pathological Statistics of Insanity*, p. 57.—(⁷) *Pathological Statistics of Insanity*, p. 59.—(⁸) *Journal of Mental Science*, July, 1902.—(⁹) *Mental Diseases*, p. 393.—(¹⁰) *Text-book of Mental Diseases*, p. 309.

Clinical Notes and Cases.

General Antisepsis in the Treatment of Neuropsychosis. By EDWARD BLAKE, M.D.

CASE I.—*Stuporous Insanity stereotyped by Staphylotoxin.*

NEARLY three years ago, I was requested to see Mrs. L— at one of the London Asylums.

Briefly the history of the case was as follows :

Mrs. F. A. L—, æt. 28, a healthy woman of fair complexion, and lethargic as to temperament, having no record of mania in the family, was confined of her first child on March 17th, 1902 ; she soon developed symptoms of puerperal mania, and, having suicidal as well as homicidal impulses, at the same time declining her food, she had to be placed in an asylum on April 21st. Here she improved to a certain extent, but drifted into a condition which had been called "melancholia," but which would be better described as Stuporous Insanity. Profoundly apathetic, she took no interest in anything ; she suffered too from "phantom tumour" (paresis of right vagus) and voided both bladder and bowel into her bed. Since the birth of her child the catamenia had not been re-established.

I first saw her on September 29th, 1902. She was then covered with pustules. These were evidently the result of nail-inoculation from *Seborrhæa capitis*. For on curing the scalp-eczema, and keeping her nails aseptic, the pustules soon departed. A source of self-poisoning

with staphylo toxin was found in the shape of an ordinary cervical erosion. Dr. Leslie Eastes made cultures of staphylococcus from the discharges supplied by this abrasion. No diplococcus was found.

Treatment.—After a dietary, from which all forms of starch were rigorously excluded, the paralysed condition of the colon disappeared. The patient was fed on butter, Devonshire cream, veal marrow, meat, fish, greens, and salad; to these rations, unlimited milk was added as a beverage. The endometrium and the cervical canal were swabbed with iodised phenol once a week. She defiled her bed with fæces for the last time on November 13th, 1902. On November 27th the menstrual flow was re-established satisfactorily, *after seventeen months' absence*; it continued for six days. After this the patient showed a steadily growing interest in her surroundings, asked for her baby, grew bright and cheerful, and was able to spend Christmas day happily with her family. I have recently received a report from the husband of this patient, stating that she is in perfect health. She is actually much less self-centred than before her illness.

This case serves to emphasise the fact that *it is not enough to remove the cause of a given pathological process, but that it is imperative that we should also close up all the lateral avenues which might conceivably lead to self-infection*; more especially by way of the cutaneous tract, by the alimentary canal, and by the genito-urinary apparatus. The fact cannot be too strongly emphasised that even *when toxins do not actually cause any given morbid state, they may often serve to stereotype it*. Thus Graves' disease, started by terror, is often perpetuated by pus-products obtained from carious teeth or from neglected pelvic discharges, as well as by the toxins of the colon. Eczema, caused by trauma, is kept going by the rich flora of an unclean skin. The reaction of one set of toxins, in favouring the development of a pathogenic micro-organism, belonging to an entirely different family, is exceedingly interesting. For example, the minute bacillus of influenza grows better in a soil prepared by Staphylococcus. The typhoid organism favours tubercle, oddly enough, more than its nearly allied congener—the Leprobacillus. These are curious instances of symbiosis, of which we know little, but which will well repay a careful working out.

CASE 2.—*Epileptic Erotomania stereotyped by Staphylo toxin.*

Mrs. P. W.—, æt. 21, had been delivered of a healthy child on January 27th, 1882.

When first seen by me on September 14th of the same year, she was suffering from pronounced erotomania, which had led to some serious social complications. I found also that she was an epileptic. The fits

occurring only at night had been overlooked. She was entirely cured by removing a persistent, purulent, cervical catarrh.

This case had been diagnosed as one of *folie circulaire* by the leading alienist of that day. He assured me that this lady would probably recover but would certainly relapse.

She has justified the former portion of this physician's prognosis, but happily not yet the latter.

Twenty-three years have passed away; at present she is better than ever.

Occasional Notes.

Legislation for the Treatment of Mental Diseases.

Two bills to amend the existing legislation in reference to the treatment of mental diseases are before the present Parliament, both introduced in the House of Commons.

A "Bill to amend the Lunacy Acts," introduced by the Attorney-General, supported by the Solicitor-General, includes the clauses for the temporary care of incipient insanity which have been repeatedly introduced in previous Sessions by the Lord Chancellor. With these the readers of this Journal have been acquainted during the last six or seven years, the Association having been mainly instrumental in their introduction, and no further comment is needed in regard to them at the present time.

Two clauses (Nos. 1 and 2) require consideration and are of importance as aiding in the strengthening of the working power of the Lunacy Commission.

The first clause says "that the Commissioners may, by rules made by them . . . direct that notwithstanding anything in the Lunacy Acts, 1890 and 1891, anything which under those Acts must be done by two or not less than two Commissioners may be done by one Commissioner." The marginal note of the Bill makes this specially refer to "visits to licensed houses." This clause, if it becomes law, will certainly effect a considerable economy in the time of the Commissioners, who have hitherto had to visit in medico-legal pairs.

This alteration, although so apparently slight, is really of

very great importance, and connotes the abandonment, it is to be hoped, of a fundamental vicious principle in the supervising powers of the Commission. This principle was practically the assertion that the medical commissioner could not be trusted to exercise supervision without the aid of a legal assessor.

There can be little doubt that the medical commissioner can be trusted to act alone, and that his opinions will be received with respect and deference by those whom they may concern, but it is doubtful whether the solitary legal commissioner will command the same acceptance in conditions in which medical questions largely predominate. It is possible, therefore, that there may be a need for a larger proportion of medical work in the commission, as the Scottish Commission has found to be the case.

The second clause proposes to give the Lord Chancellor power to appoint a medical and a legal commissioner, in addition to the existing strength of the Commission. This cannot but be accepted as a step in the right direction, although the need of any addition to the legal strength of the Commission is certainly not obvious and should be strenuously opposed as supporting the mistaken principle mentioned above.

The first clause gives hope of the abandonment of the kind of three-legged race arrangement resulting from the binding together of the two commissioners; but this second clause would seem to imply a desire to continue and extend a system which has done so much to hamper progress in the past.

The attempt to increase the legal element of the Commission can only be characterised as most unfortunate, and calculated to excite opposition to the passage of the Bill. The experience of Scotland, and of all other civilised nations, has been that a very small legal element is really necessary in the central State department presiding over the care and treatment of the insane.

The legal members of the Lunacy Commission would probably admit that they had an uncomfortable experience during the early period of their appointment, when they were becoming acquainted with their duties. In course of years they come to possess considerable knowledge and experience of lunacy matters, but few of them would claim such a comprehensive acquaintance with the complex questions involved in dealing

with lunacy as to give them the power of initiative which we have a right to expect from the members of a supervising body.

A barrister of 40 or 50 years, called upon to inspect and report on the condition and discipline of the Channel Fleet, would not be in a more false position than that in which some former members of the Lunacy Commission have been placed.

The innate respect for the law in Englishmen could alone have enabled them to pass through their period of inspectorial infancy without censorious criticism from the experienced officers whom they were supposed to supervise and instruct.

The Lunacy Commission, it may be asserted without fear of contradiction from those in this or any other country who have knowledge of lunacy, does not need any additional legal strength, but it does need a very considerable increase in its medical element. The existing legal staff could quite well discharge their duties without stirring beyond the precincts of Westminster, except in the rare cases in which a legal question is raised by a patient necessitating a legal visit. The lunatic, in fact, is not a criminal, but a sick person, and requires to be treated, not by legal but by medical knowledge. Until this is fully recognised and acted on, lunacy matters will continue to be unsatisfactory, and the position of the Lunacy Commission will be exposed to ever increasing attack.

Lunacy Acts Amendment Bill.

The "Lunacy Acts Amendment Bill," presented to the House of Commons by Sir John Batty Tuke, states in its preamble that its object is "to authorize the London County Council to provide Receiving Houses for the reception of persons mentally afflicted or alleged to be of unsound mind, and to authorize the detention of such persons in such houses and for other purposes connected therewith."

It is also proposed that these receiving houses "should be available for the treatment of out-patients," that they should be under the supervision of the Commissioners in Lunacy and conducted in accordance with the law regulating county asylums.

The objects thus stated are in accordance with those views in regard to the treatment of incipient insanity which were

carried out by the late Dr. Manning in Australia, and have been advocated by the Medico-Psychological Association for many years past, and are deserving of the heartiest support. Whether they will be carried out in an economical and efficient manner remains to be seen, but there is such great advantage to be reaped from them that it would more than counterbalance very considerable economic errors.

This Bill will have the fullest consideration of the Parliamentary Committee, and comment on the details is therefore unnecessary. It is, however, desirable to remind our readers that in past years attempts have been made to establish so-called hospitals for mental diseases under the direction of physicians whose experience had been in neurology and not in morbid psychology. The clauses relating to the appointment of medical officers give no direct enlightenment on this point, but the fact that the institutions are under the supervision of the Commissioners in Lunacy and under the laws applying to County Asylums is probably a sufficient safeguard against any renewal of this attempted exploitation.

The President-Elect.

In the report of the proceedings of the quarterly meeting at York omission was made of the election of the new President-elect, necessitated by the retirement (and subsequent death) of Sir John Sibbald, whose portrait we publish with this issue of the Journal.

Dr. Outterson Wood, who was unanimously elected to the vacancy thus created, has long worked for the Association in many ways, and in thus filling the breach has added another important service to the long list already standing to his credit.

The Horton Scandal.

This well-worn topic appears to be assuming the character of a hardy perennial in our pages, although in the records of the London County Council it seems to have put on a cryptogamic character, since a careful search has not discovered the

smallest sign of fructification, if the Report of a committee of inquiry may be thus fancifully described.

A large majority of the London County Council describes itself as Progressive, a term which in its vague indefiniteness is very characteristic of popular catch-words. It eludes all description of the speed, direction, or means of progression, and has already received some criticism on this score. Political critics have asserted that the progress was all to one side (or party)—latero-progression, in fact, or in the vernacular “crab-like.” Economists have asserted that the progress was directly downward to the deepest depths of the Hades of debt. Viewing their action in this particular matter of report-burking from a moral plane, it appears to be not merely retro-progression, but to be backwards and downwards—progress, in fact, that is most aptly described by that good old English expression “backsliding.”

The Tent Treatment of the Insane.

In these days, when the popular idea of the provision of accommodation for the insane and tuberculous seems to be limited to the erection of the most substantial, complex, and costly structures that the architectural mind can devise, it is a relief to read of treatment in a climate much more rigorous than our own being conducted under canvas.

The Report of the Manhattan State Asylum records that for three years camp treatment for the tuberculous insane has been carried out *throughout the whole year*, while camps for demented and uncleanly men, for feeble and decrepit women, for convalescents employed indoors, and for patients confined to bed for concurrent diseases, have been found advantageous for considerable periods of the year.

If this system of treatment can be carried out to such an extent in the climate of Manhattan, with its extreme vicissitudes of heat and cold, it would seem possible that much more might be done in our more temperate country with some gain to the pockets of the charitable and the ratepayer and much advantage to the recovery rate of the insane.

The Asylum Workers' Association.

The annual meeting of this Association was held on May 18th, under the presidency of Sir John Batty Tuke. From the Annual Report and the report of the meeting, it appears that the Association, although flourishing financially, shows a considerable falling off in the number of its members. This lack of interest is the more to be regretted at the present time, when the interests of asylum workers are so greatly jeopardised by the Bill for the registration of nurses now before Parliament. Unless the Asylum Workers' Association is numerous and vigorously supported, its protests against the injustice that is threatened to mental nurses will be wanting in weight. This is a vital question, and the members of the Medico-Psychological Association would be doing good work in using their influence to awaken asylum employees to a sense of the importance of their interest in this question of the registration of nurses.

The Royal Commission on the care of Idiots and Imbeciles.

This Commission was appointed last year to consider the existing methods of dealing with mentally defective persons who are not dealt with under the Lunacy Acts. The commission, as originally constituted, strangely enough, contained only one medical person—Dr. Needham—although aided by two K.C.'s.

The medical element in the Commission was subsequently strengthened, and a large proportion of the witnesses have been medical men, including several members of our speciality; we must hope, therefore, that the results of the deliberations of the Commission will show that the medical side of the questions involved has not been neglected.

The original composition of the Commission must not be taken as an indication of a specially low esteem of the medical profession, but as evidence of the general ignorance and contempt of our governing classes for all scientific knowledge and experience.

Verbosity is the popular and especially the parliamentary test of ability. It is not astonishing, therefore, that our royal commissions are conducted on methods of inquiry that are

unsystematic and cumbersome in plan, defective and tedious in execution, that mountains of crank, futile, and irrelevant evidence are accumulated, in which the really valuable matter is inextricably buried.

The commissioners, after weary months or years of inquiry, despairing of ever reducing their huge accumulation of so-called evidence to any semblance of order, usually make a Report that is a compromise of the most extreme views rather than a mean, based on a comprehensive and reasoned abstract.

Our specialty has been so ably represented in this inquiry, that we must hope that their views of the care of these defectives may be fully appreciated by the Commission, and find full expression in the forthcoming Report.

Leave of Absence on Trial.

The legal status of patients on leave of absence on trial, we are informed, has been again submitted to the consideration of legal authorities, with the result that the previous opinion has been reversed. The patient on trial is recapturable if, in the consent granted by the Commissioners in Lunacy for a specified period, it is stated that such consent is revocable before the expiration of that period. In our allusion to this matter in the April number omission was made of the fact that the case on which this question had arisen was Dr. Weatherly's.

Part II.—Reviews.

Paralysis and Other Diseases of the Nervous System in Childhood and Early Life. By JAMES TAYLOR, M.A., M.D., F.R.C.P., Physician for Out-Patients to the National Hospital for the Paralysed and Epileptic, Queen Square; Physician to the North-Eastern Hospital for Children, and to the Moorfields Eye Hospital. London: J. and A. Churchill. Pp. viii, 512; 74 plates. Price 12s. 6d.

In dealing with the work before us from the alienist standpoint we are at first tempted to select for comment only those sections which are directly concerned with mental abnormalities. Brief reflection, however, shows that almost every nervous ailment of childhood and

adolescence is accompanied by some modification or arrest of mental development, or at least by more or less definite psychical symptoms. The whole subject has therefore considerable weight and interest for the student of insanity. Dr. Taylor's book may be welcomed as the fruit of keen observation and wide experience both in neurology and in the diseases of children generally, while, as might be expected from the writer's special acquaintance with eye work, the ophthalmoscopic descriptions are of peculiar value and helpfulness.

We could wish that in discussing symptomatology more space had been devoted to psychical features. G. F. Still has shown that a study of the mental pathology of childhood is of profound interest and importance to the special worker in children's diseases. It is a truism that no student of lunacy can afford to neglect the work of the neurologist, but there seems to be to-day a tendency on the latter's part to regard the mental side of a clinical picture as hardly meriting close or extended description. This is much to be regretted. Many asylum patients have attended the special hospitals in the early stages of their malady, at the time, indeed, when it claims the most accurate observation. Again, too little attention has ever been paid to the nature of the mental alteration accompanying many of the brain lesions of childhood; for instance, cerebral tumour and chronic abscess. We feel convinced that more could be done to correlate mental changes with definite diseases.

To turn to the book in detail, the various forms of meningitis are admirably described. In the somewhat discouraging task of combating the tubercular form the writer advocates the repeated employment of lumbar puncture when this proceeding appears to afford temporary relief of suffering. Perhaps, however, the key-note of treatment lies in the dictum that all measures causing discomfort to the patient must be avoided. With regard to posterior basic meningitis, we hardly see the grounds for definitely pronouncing that the path of entry of the causative diplococcus is by the Eustachian tube and middle ear, probable as this view appears. It is interesting to note that sudden death is apt to occur in cases of incomplete recovery. The use of mercury and potassium iodide is counselled, but the suggestion as to dosage is ambiguous. Dr. Taylor regards syphilitic meningitis with ependymal involvement as the cause of many cases of so-called idiopathic hydrocephalus.

In the treatment of chorea, a crux in pediatrics, the author will have none of salicylates, nor does he hold with large doses of arsenic, and he justifiably draws attention to the very real danger of neuritis from the inconsiderate use of the latter drug. He regards the association of infantile fits with rickets as in the majority of cases a definite one. In this connection too much stress cannot be laid on the injunction to treat these convulsions with promptness and decision, so as to prevent the succession in after life of epilepsy. We note, by the way, that the author has never known a case of epilepsy cured by circumcision, and the experience of most of his readers will probably coincide with this.

An excellent chapter is devoted to the tics: we do not remember seeing the subject so efficiently treated in a small space. The subject of night terrors is also briefly but ably dealt with. In the short chapter on microcephaly, however, the description of the variety unassociated with gross brain disease is not in accord with our observation. That

great bodily weakness, inability to feed, and noisy and dirty habits are characteristic will certainly not be supported by those who are conversant with such cases. Many pronounced microcephalics are active and vigorous, quiet and cleanly in habits in spite of their definite mental failing. It is unlikely, however, that anyone will be found to dissent from the author's deprecation of operative interference.

The book will repay close and careful study, and is one for which there was room. It is remarkably well illustrated, the microphotographic reproductions especially deserving praise.

Le Langage Intérieur et les Paraphasies. By G. SAINT-PAUL. Paris : Alcan, 1904. Pp. 316, 8vo. Price 5 frs.

Twelve years ago Dr. Saint-Paul began an investigation into the various types of internal language by which, since Charcot's generalisations, it has been well known that our thinking is conducted. Charcot accepted three main simple types of internal language—visual, auditory, and motor. Dr. Saint-Paul has sought to develop our knowledge of such types. He issued in 1892 an elaborate *questionnaire* which has been far more fruitful in results than is usually the case in this method of inquiry. He evidently has a wide circle of friends of great intellectual distinction, and he received interesting communications, not only from various eminent novelists, but from a large number of medical correspondents, in many cases familiar with psychological analysis. The author published a preliminary study of this subject some years ago ; in the present work, which is highly elaborate and occasionally a little difficult to follow, he has set forth his fully-developed views. It is a work of undoubted importance which must long remain an authority on this subject.

The faculty of thinking in words is termed by Saint-Paul *endophasia*, and the particular way in which that aptitude is manifested in a subject is called his *endophasic formula*. After a preliminary chapter on the cerebral mechanism—in which many of Flechsig's views are accepted, though with due caution—the author proceeds to discuss in detail the various manifestations of the endophasic formula.

Charcot's three types were the auditory, the motor, and the visual. Persons of verbo-auditory type habitually hear their own inner language. Saint-Paul considers this the most frequent of the three simple types. Egger, the psychologist who has most minutely described this type, believes that it is the only one, which opinion Saint-Paul explains with the remark that persons of auditory type seem to find it peculiarly difficult to understand other types. For the man of verbo-motor type thought is restrained speech ; the verbo-motor individual, when he observes himself, always finds that his thoughts are accompanied by a mute articulation, and sometimes, if thought becomes very intense or excited, they may break into actual speech. Stricker, from observation of himself, has most elaborately and precisely described this endophasic type. Those who belong to this type, unlike auditory people, are usually quite conscious of the process ; but although it would appear that various philosophers and authors have been of this type, in Saint-Paul's

opinion it is by no means common, being indeed exceptional. The third type is the verbo-visual, which would appear to have been first described by Galton in his *Inquiries into Human Faculty*. These people see their thoughts as though they were written. It is obviously a type of recent development, for it could not have existed before the origin of writing. It is, in Saint-Paul's opinion, a rare type.

The author is careful to show that even many persons who belong to these simple endophasic types frequently follow a different formula for special mental operations. This is notably the case with many in learning a foreign language. But Dr. Saint-Paul considers that the most frequent endophasic formulas are complex; at the head he places the visual-motor, and, first of all, the auditory-motor, in which the individual seems to hear the voice which he himself seems to articulate. Among the 240 cases the author has accumulated, 38 are omitted as of vague or indifferent type, and of the remainder 48 per cent. are of auditory-motor type, 20 per cent. of visual-motor type, 15 per cent. auditory, 7 per cent. motor, nearly 9 per cent. visual, and about 1 per cent. auditory-visual. There is no doubt room for differences of opinion as to the relative frequency of these types, and, as a matter of fact, since the publication of this book Lemaître's results show a divergent order of frequency; the precision, however, of the author's descriptions and classification remains unimpaired.

The concluding third of the book deals with endophasia in pathological and sub-normal states. The author is content to use the old term aphasia (though not without protest) as a generic term, aphemia, agraphia, verbal blindness, and verbal deafness being aphasias. Paraphasia is also used generally for the various lesions in which there is complete or incomplete rupture, from pathological causes, between a centre and the *ensemble* of the higher intellectual centres. Leitungs-aphasia is the term applied generally to rupture of communication between two centres. On this basis a number of pathological conditions are considered. This part of the book is, however, of somewhat less value than that dealing with the normal field, for here the author has to rely mainly on cases quoted from the literature of the subject.

The book contains many valuable observations on a variety of topics related to its central theme, and is full of interest and suggestiveness both for the psychologist and the alienist. HAVELOCK ELLIS.

La Logique des Sentiments. By TH. RIBOT. Paris: Alcan, 1905. Pp. 200, large 8vo. Price 3 frs. 75.

In his latest book the distinguished editor of the *Revue Philosophique* has, he tells us, sought to complete the investigation carried out in his previous works on the psychology of the emotions, and on the creative imagination. Notwithstanding its title, the book is, as indeed we might expect, purely psychological, and it is worked out in the clear and attractive manner we always find displayed in the works of Professor Ribot, who is always especially happy in reducing complex mental states to order, and in illustrating them from every quarter, new and old. Although the "logic of the emotions" appears to have been

touched on slightly by Comte, and later by Stuart Mill, it has not before been seriously discussed by a psychologist.

It may appear paradoxical to affirm that there can be such a thing as an extra-rational logic. The element common to both logics is to be found, Ribot points out, in reasoning, the peculiar element of all logic. The logic of the emotions, like all logic, is a method of reasoning in which there is elimination of the middle term in a system of three terms. Undoubtedly emotional logic is concerned with *prejudice*, in the strict and etymological sense of the word; it is a perpetual sophistication, and the conclusion imposes the reasoning; but it stands firmly on its own ground, and we cannot but believe that it has its utility, since it still retains so much vitality. Its utility mainly lies, Ribot believes, in the fact that man finds such logic of service in the cases in which he has some theoretical or practical (fundamentally always practical) interest in justifying a conclusion in respect to which he cannot or will not employ rational methods.

In his acute discussion of the constituent elements of emotional logic Ribot points out that the part analogous to that of general or abstract ideas in rational logic is here played by special states of consciousness which may be called *judgments of worth*, or simply *values*. In an interesting digression he traces the history of the idea of values, now so widely used in philosophical literature, and so useful in enabling us to comprehend emotional logic. Its source is to be found in Adam Smith's *Wealth of Nations*, and it is noteworthy that Smith anticipated the modern view by clearly giving value a psychological significance as the satisfaction of needs. Lotze put the idea of value in a prominent position when he declared that "when two hypotheses are equally possible, one in accordance with our moral needs, the other in opposition to them, we must always choose the first." Nietzsche (following Taine and Guyau) has been the great propagandist of the theory of moral values; for Nietzsche every new teacher or preacher is, above all, "a creator of values." At the present time many other and more scientific writers in various countries are developing similar ideas. A value has no objective existence; it is determined by desires; but in morals, as Witasek puts it, "the value is always essential, and every value is a feeling, and every feeling a value." Thus it is, as Stern has said, "that most of the dissensions among men are due, not, as Leibnitz thought, to lack of agreement as to the meaning of words, but to the different *feelings* that are united with words."

Ribot accepts five chief forms of emotional logic—the passionate, the unconscious, the imaginative, the justificative, the mixed or composite—and expounds these in the longest chapter of the book. In a final chapter on the "emotional creative imagination" there is a very interesting discussion of musical invention as an attempt to give stability and precision to the vague and elusive; some curious communications from musicians are here embodied. No reference is made to the logic of the insane mind, but it is scarcely necessary to point out how closely the alienist is brought into contact with the processes of reasoning discussed in this suggestive book. HAVELOCK ELLIS.

The Diseases of Society [the Vice and Crime Problem]. By G. FRANK LYDSTON, M.D. Philadelphia and London: Lippincott, 1904. Demy 8vo, pp. 626.

Under this comprehensive title the author discusses crime, prostitution, pauperism, insanity in its relation to society, and the economic and industrial conditions which keep men under in the battle of life. Having served for some years as resident surgeon to the Blackwells Island Penitentiary, New York, Dr. Lydston had an opportunity of studying the criminal, and the absurdities of the criminal law and the penal system. Since then he has kept a hold of the subject, as has been shown by various papers in American periodicals. In his Preface the author comes boldly forward: "No apology is offered for the radical tone of some of the ideas expressed in the volume." In particular "the chapters on anarchy and sexual vice and crime are not consonant with those entertained by the great majority of people." He adds that his views of the vice and crime problem are based mainly upon the conditions prevailing in America, which must be different from the European standpoint. Having thus blown the horn, Dr. Lydston loses no time in drawing the sword, which he wields after a trenchant fashion. He finds in the New World all the wickedness, all the crimes and corruptions of the Old, in some cases in worse forms. He shows by statistics how much crime and suicides are increasing, especially in the cities of the United States, though murders have become rarer. "The machinery of the law," he tells us, "is tainted from top to bottom with venality, corruption, and interested unfairness." Both judges and jurors are bribed, and he equally denounces the thieving of corporations and the tyranny of trades unions, and says that the gaols of New Jersey and Florida are worse than the prisons of Siberia. As the franchise has been foolishly given to the negroes, the whites in the Southern States are fain to defend themselves from the mastery of their former slaves by force and intimidation. The black man has not yet got rid of the savage lust of his race, and assaults upon white women are horribly revenged by lynch law, crowds assemble and people come by trains to enjoy the spectacle of negroes burnt alive. The danger of executing the wrong man is a thousandfold greater in mob rule than in legal punishment; niceties of discrimination between negroes are not characteristic of a Southern mob.

Dr. Lydston's style is striking, though sometimes incorrect. He is too apt to expand a statement beyond his evidence, *e.g.*: "A superb mathematical or musical faculty may be possessed by a subject who is otherwise an idiot." "Persons who are born deaf and dumb may be very intelligent. Laura Bridgman and Helen Keller are brilliant examples." Yet neither of these women was so born. His reckless accusations against Britain of covetousness and hypocrisy in the war in South Africa show how little trouble Dr. Lydston has taken to acquire correct information. He talks of children who survived, but "whose longevity was short." However, in a book dealing with so many debatable questions it is easy to find faults.

Dr. Lydston has a long and somewhat diffuse chapter on neuroses in

their relation to social diseases, the product of much reading and acute observation, especially upon criminals and the insane. In our opinion he has wasted some pages in maintaining that Gall's discoveries have been treated with unworthy neglect. If Dr. Lydston will go back to the medical journals and reviews of the first half of the nineteenth century, he will find that Gall's theories received much consideration and were fairly refuted. The only successful guess made by Gall was the location of the faculty of language in the orbital portion of the brain. We can only wonder at Dr. Lydston's assertions that Gall correctly localised the optic centre and the centre for the musical faculty, that the cerebellum has been proved to be the centre for sexual feeling, and that the moral faculties have been proved to be located in the posterior and middle lobes of the brain. Lydston's observation that the growth and nutrition of the brain are influenced by muscular development is of importance. He goes so far as to hold that in manual and general physical training lies the germ from which the principles of the prevention and cure of social disease will eventually develop. In his chapter on "The Chemistry of Social Diseases" he considers the relation of intoxicants to crime. The following gives his experience of the effects of cocaine: "Deadlier than morphine, less reliable in its action, and liable to kill without warning, it has nevertheless been hailed with delight by the degenerate, and, alas! by the sufferer who does not belong to the army of degenerates. Primarily, cocaine is more stimulating than opium. Intellectual brilliancy, increased physical energy and capacity for sustained mental effort, beautiful thought imagery, fanciful yet coherent flights of imagination, relief of psychic pain, surcease of sorrow—any or all of these remarkable effects may accrue from the action of cocaine." "But the debit side of the ledger is a terrible record indeed: Death, as sudden and unexpected as a crash of thunder from a clear sky, produced by a single minute dose of the deadly drug." Amongst other evil effects following the cocaine habit he mentions prostration, mental depression, nervous irritability, vacillation of the mind, hallucinations, delusions of persecution, and outbursts of temper. The chapter on anarchy in its relation to crime is the best in the book. With a warmth of language which rises to eloquence he describes the outbreaks of anarchy, especially that of Chicago, the furious passion of mobs, and "the anarchy of rulers," meaning unjust wars and the dangerous struggles between capitalists and trades unionists.

No question in ethics is more open to discussion than the relations of the sexes, upon which there is a diversity of views through different times and in different countries; but in Britain, and we suppose also in America, such discussions are looked upon with dislike. Dr. Lydston, however, shows a free hand in his chapters on sexual vice and crime. The following passage comes from his view-point of professor of genito-urinary surgery:

"Prostatic disease is a special cause of nervous disturbance in the male. . . . The extent to which prostatic irritation enters into the etiology of vice and crime is by no means appreciated. Prostatic pathology is often associated with the most profound disturbances of the nervous system. The mentality of men with prostatic irritation is rarely, if ever, well balanced. Suicide, sexual vice, and varying degrees

of neurasthenia often have their foundation in an irritable, congested, or inflamed prostate."

Dr. Lydston objects to measures for the prevention of venereal diseases, as they would remove the only inhibition—the fear of consequences—that exists in many individuals. Yet, if it be wrong to prevent such diseases, is it right to treat them? Lues is but a poor preacher of continence, and if it is to be kept up as a punishment for transgressors it must be admitted that it often strikes most unequally, and entails a frightful train of distempers upon humanity, not sparing the innocent. Yet, of all infectious diseases those of venereal origin are the most easily preventible.

Dr. Lydston subscribes to the theory that the criminal is a product of evolution, which he tells us is in absolute harmony with the evolutionary theory in general. This can only be by reversion to a lower type, a type by no means easy to find. The habitual criminal is propagated by descent. Dr. Lydston admits that criminals by heredity are usually hopeless. Our ancestors tried to cut this short by the halter. Dr. Lydston, who has a refined horror of capital punishment, would have recourse to sterilisation both with the males and females.

Dr. Lydston is, however, aware that all the forces of civilisation enter into the causation of crime. If it were not for the continual recruitment of the delinquent from the non-criminal class, the degenerates would speedily become scarce, if not pass wholly away.

It is customary for writers of Dr. Lydston's school to talk with contempt of criminal codes and penal systems because they fail to reclaim the criminal, altogether ignoring the main object of these institutions, which is to protect life and property, and this they do with increasing efficiency in civilised countries. The reformation of the delinquent was ever a secondary object, and by the showing of these same criminologists it does not appear to be a hopeful task.

In the chapter on genius and degeneracy Dr. Lydston should have exercised more of the critical faculty which is not wanting in other pages. We all of us know of the books and papers written to re-echo the dictum that genius is a neurosis, supported by anecdotes, often incorrect, of the nervous troubles and peculiarities of men who have gained sufficient reputation to be thus utilised. Take the following as a sample: "Cromwell was a sickly neuropath, who was a confirmed hypochondriac, his morbidity often approximating melancholia. All his life he was dominated by a vision, in which a spectral woman of gigantic stature foretold his coming greatness—a phantasmic reflection of his own hypertrophic ego." All the warrant for this is an assertion, in the *Memoirs of Sir Philip Warwick*, that a physician who attended Oliver Cromwell before the Civil Wars said that he had been called up by his patient at unreasonable hours upon a strong fancy that he was then dying, and there went a story of him that in the daytime, lying melancholy in his bed, he believed that a spirit appeared to him and told him he would be the greatest man in the kingdom. There is, however, no proof that this made anything more than a passing impression on him, or that he became a confirmed hypochondriac. The assertion that Napoleon Bonaparte was a "physical degenerate" is equally unprovable.

The chapters on the physical and psychic characteristics of the criminal and on the illustrative crania and physiognomies of degenerates are worthy of attention. They are illustrated by no less than 177 figures, which are well executed.

The author's views on "the therapeutics of social disease" are based almost wholly upon physical considerations—what he calls "criminologic materialism." He does not wish to dispense entirely with moral suasion, and regards the prison chaplain as an important official; "the less orthodox he is the better for his success in brain-building in criminals." Dr. Lydston would abolish the slums and provide baths and other conveniences for the poor; they should be forced to take gymnastic exercises, and proper books and periodicals should be given outright. Nobody should be allowed to marry without going through a medical examination, which would embrace the moral as well as the physical qualifications of the candidates. Street-walkers and others who might help men to evade these restrictions should be shut up. At the same time, he would see that no women should want the necessaries of life. If, after all this, there should be some who would not behave, sterilisation may be resorted to. The only source indicated for such reforms, which would entail some expense, is the taxation of the plutocracy. "There should be more legal assessments of the multi-millionaires—compulsory subscriptions, as it were—for the elevation of the under world."

Altogether the book is the product of an acute and vigorous thinker, whose earnestness and sympathy with the unfortunate we are compelled to respect even when we cannot agree with his views.

WILLIAM W. IRELAND.

Part III.—Epitome of Current Literature.

1. Neurology.

The Amyotrophic Form of Disseminated Sclerosis [La Sclérose en Plaques à Forme Amyotrophique]. (Gaz. des Hôp., P., Oct., 1904.) Lejonne, P.

Under this title the author gives an account of the symptomatology and morbid anatomy found in certain cases of disseminated sclerosis. They were characterised clinically by two orders of phenomena: firstly, muscular atrophy; secondly, affections of the sphincters, trophic and mental disturbances.

The muscular atrophy generally began in the small muscles of the hand, thence extending to the forearm, arm, and legs; and neither in the character of the atrophy nor in its distribution was there any essential difference between this condition and certain forms of progressive muscular atrophy or amyotrophic lateral sclerosis. Contractures were a striking feature, but these affected other muscles than those

atrophied, and there did not appear to be any constant relationship between the degree of contracture and of atrophy.

The diagnosis is to be made from the existence of this atrophy with paresis and contractures accompanied by trophic, sphincter, and mental disturbances. There may also be present some or all of the classical symptoms of ordinary disseminated sclerosis, viz. intention tremors, nystagmus, transitory diplopia, vertigo, and scanning speech.

The author considers that the progress of this variety is more rapid than that of ordinary disseminated sclerosis, and consequently the prognosis is much more grave, less on account of the muscular atrophy than owing to the concomitant trophic and sphincter disturbances and the probable extension of the destructive process to the bulb.

The morbid anatomy consisted in pigmentation with atrophy of the cells of the anterior horns, diminution of their processes, and slow degeneration of the anterior roots. As a consequence many fascicles of the muscles had undergone progressive atrophy, but the disease was essentially a central one.

Assuming that Dr. Lejonne is correct in his conclusions that these cases are simply a variety of disseminated sclerosis, and not to be regarded as combinations of that disease with progressive muscular atrophy, his observations are of no little interest. It is to be observed, however, that most of the hitherto described varieties of disseminated sclerosis are due to a particular incidence of the islets in certain of the *white* columns, and recent research rather points to the view that the essential morbid change is a degeneration of the myelin substance. This being so, the extreme involvement of the grey matter in these cases is noteworthy. Atrophy of muscles has, of course, been observed previously in many cases, but not usually to the extent here described, and it has then been attributed to a myelinic degeneration of peripheral nerves identical with that taking place in the central nervous system.

A. F. TREGOLD.

Disseminated Sclerosis. An Account of the Microscopical Examination of Three Cases, with some Observations on the Pathogenesis of the Disease. (Rev. of Neurol. and Psychiat., July, 1904.) Tregold, A. F.

The author is fortunate in that he had the opportunity of examining histologically three cases of vascular sclerosis of differing rapidity—a chronic case of the spastic paraplegia type of eight years', another of the myelitis type of three years', and a third of the cerebellar type of fourteen months' duration. After describing in the first section the clinical history and *post-mortem* appearances of the cases, the second section of the paper gives an account of the histology. Three types of islet are found: hard islets (forming the majority in the most chronic case), which consist mainly of sclerosis tissue with little vascularity; islets of softening, consisting of a loose reticulum containing semi-fluid material, and often surrounded by a zone of leucocytes; and, lastly, intermediate islets, which showed nerve-fibres in all stages of degeneration, little or no gliosis, and practically no vascular change. Most of the islets in Case 3 were of this character; they were numerous in Case 2, none in Case 1. All are stages in the same process, the islets

becoming more dense and firm with increasing age. The three stages are often found in the same islet, the more dense tissue being in the centre. Secondary degeneration, which is stated not to occur, was demonstrated in all, but especially in the two more acute cases.

The third section deals with the interpretation of the changes described. The primary sclerotic view is excluded, as in true cases of neurogliosis degeneration of nerve-tissue does not follow; in two of these cases the same degeneration of the fibres occurred in peripheral nerves where there is no neuroglia, and again in acute cases there is extensive myelin degeneration with but little sclerosis. The theory of primary vascular obstruction is also excluded because vessel-wall changes are not found, or, if slight changes have been discovered, they are general and not limited to the islets, and again in senile and syphilitic cases where the vascular changes are undoubtedly primary the naked-eye and histological appearances are quite different. From his cases the author therefore concludes that the essential process is one of myelin degeneration independent of vascular disease or neuroglial proliferation.

Finally, as an hypothesis, it is suggested that a toxine (yet to be discovered) is the exciting cause, with possibly an inherited predisposition in a few cases.

It would be very interesting and a valuable corollary to this paper if the author would publish some of his cases of sclerotic patches of other origin, especially those syphilitic cases which clinically so closely simulate true disseminated sclerosis, which may possibly account for some of the cases published to demonstrate that the changes are primarily of vascular origin.

JOHN T. DUNSTON.

2. Physiological Psychology.

The Interior Language of Children [Observations sur le Langage Intérieur des Enfants]. (Arch. de Psychol., August, 1904.)
Lemaitre, A.

It is well known that, when we think, we either see, hear, or articulate our thoughts, or else adopt a combination of these methods. This endophasia—as it is now frequently termed—has been studied in Switzerland by Lemaitre among a number of children between the ages of 13 and 15. The results in each case are carefully detailed. The endophasic types in childhood are found to be very complex, even more so than among adults, a single centre gradually attaining predominance in the course of years. Lemaitre notices a frequent and interesting tendency in some boys to become auditory at puberty and associates the tendency with the awakening of “the voice of conscience,” etc., at this age. Another interesting observation is that individuals of auditory, visual, or especially of mixed type have a much better memory than those of motor type. With regard to the exact classification of types, Lemaitre recognises the difficulties, such difficulties being largely responsible for the differences in the results obtained by investigators. According to his own classification, among the ninety children studied, the verbo-motor type is the most common (in the proportion of 45·5

per cent.), the visual type next (32 *per cent.*), and the verbo-auditory the third most frequent type (13 *per cent.*). It is noted that verbo-visual persons are liable to spell badly; this is attributed to the persistence in memory of words which when first thought were incorrectly visualised. With regard to the heredity of endophasic types, there is no necessary inheritance; thus in one case parents who were both purely motor had a child who was purely auditory. On the other hand, it is found that seven children of clergymen were all of motor type, as, it is believed, were also their fathers. It is among boys belonging to the visual and especially to the visual-motor type that the strongest æsthetic tendencies are found. Persons of auditory type, Lemaitre finds reason to believe, stand midway between those of visual type, who are attracted to the concrete, and those of motor type, who are attracted to the abstract.

The author suggests that endophasic type probably has an influence over a man's metaphysical beliefs; thus, in mediæval thought the Nominalists correspond to the motor type, the Realists to the visual type, and midway between these the more conciliatory Conceptualists correspond to the auditory type.

HAVELOCK ELLIS.

A Sketch of the History of Reflex Action. (*Amer. Journ. Psych.*, Oct., 1904.) Gault, R. H.

This is a clear and instructive account of the progress of opinion as regards reflex action from the Pflüger-Lotze discussion, in 1853, onwards. Pflüger asserted that consciousness, or "soul," is divisible, and that there is a "spinal soul," as shown by the purposive movements of a decapitated frog. Lotze asserted that such movements are not due to a soul in the cord, but to the after-effects of conscious activity impressed upon a plastic organisation and transmitted by heredity, thus suggesting development from the conscious to the unconscious, the voluntary to the involuntary, the spontaneous to the reflex. The various sections of the author's paper deal with the inhibition of reflexes, the phenomena of summation, vascular tonus, muscular tonus, tendon reflexes, the direction of transmission and co-ordination of reflexes. Gault concludes that the main gain in the progress of the theory of reflex action has been rather in the slow alterations of standpoints than in the sudden appearance of new facts, and that a point has now been reached at which at least a partial solution as between the views of Pflüger and Lotze is possible. "We may define the soul objectively as that feature of the central nervous system in virtue of which the organism is enabled to profit by experience. Under this definition the question of a divisible soul does not involve the question of a subjective spinal consciousness. The question is, Can a given organism profit by experience? If it can, we are justified in inferring that it has such a soul as has been described. If it has not, it may fairly be regarded as a machine."

HAVELOCK ELLIS.

Reaction-time as a Test of Mental Ability. (*Amer. Journ. Psych.*, Oct., 1904.) Whipple, G. M.

The author seeks to show (1) that a distinction must be made between "laboratory" and "anthropometric" reaction experiments,

the latter being such as are carried out in a wholesale manner on school children, etc.; (2) that many of the anthropometric reaction-time tests have not conformed to the usual requirements of the laboratory method; and (3) that reaction-time tests cannot be successfully used with school children and fail to indicate mental ability. Whipple shows reason for believing that practice affects reaction-time, and that the results of a test are very largely determined by the conditions under which it is conducted. "We seem bound to conclude that the reaction-test is quite without significance as a measure of mental ability (save in so far as a small mean variation might indicate a certain steadiness in the control and direction of attention). We see that the reaction-time of any observer is determined by a large number of more or less independent factors, and that, when these factors have either been eliminated or controlled, as they are in laboratory procedure, we have left no residuum of individual variation that can be turned to account in estimating the observer's general intelligence or mental ability."

HAVELOCK ELLIS.

Paramnesia [*Eine Enquête über Depersonalisation und "Fausse Reconnaissance"*]. (*Zeit. f. Psychol. u. Phys. d. Sinnesorgan*, 1904, H. 5 u. 6.) Heymans, G.

"Depersonalisation" may be defined as a momentary condition in which the subject feels that he is an outside spectator of himself and that everything is a dream rather than a reality. "Fausse reconnaissance" is the unfounded belief of the subject that what he is saying and doing has all happened before. These forms of paramnesia have been investigated on the *questionnaire* method by Osborne and by Leroy. Professor Heymans, of Groningen, believes that both these inquiries were unsatisfactory; on the one hand they failed to take into account the habitual psychic characteristics of persons liable to paramnesia; on the other hand they failed to ascertain the precise conditions under which the illusions occur. He has accordingly carried out a more elaborate investigation, though on a necessarily narrow basis, among his own students, 45 in number (including 10 women), mostly between the ages of 20 and 25. Fifteen instances of paramnesia were recorded in twelve individuals. As regards the general characteristics of those in whom paramnesia occurs, it was found that they are strongly emotional, changeable in mood, sometimes inapt for work, and irregular in their work. These characteristics, Heymans remarks, are those which become specially marked at the age of puberty, and in an exaggerated form may be regarded as indicating a morbid development of puberty, and he recalls that Leroy had proved that puberty is the age at which paramnesia most frequently arises.

It also appeared that the paramnesic had a tendency to inaptitude for mathematics, while the non-paramnesic more often had an inaptitude for languages. He found, again, that the paramnesic are liable to the momentary experience that a familiar word is strange or meaningless. Paramnesia would thus tend to occur in persons of a special psychic type. With regard to the conditions under which the experience is likely to arise, Heymans found that the most frequent time was the

evening; the subject was usually in a passive condition, tired, exhausted, or engaged in uncongenial work. From one cause or another there is always a diminution of psychic energy. The author proposes to continue his investigations.

HAVELOCK ELLIS.

A Few Trends in Modern Psychiatry. (*Psychol. Bul.*, June, 1904.)
Meyer, A.

This paper, by the director of the New York State Pathological Institute, though mainly written for psychologists, is not without interest as a review of the present state of European psychiatry. After pointing out how very young the science is, he considers its present state in England, marked, he believes, by "a rather striking uniformity and an absence of definite schools of research which not only would bring out stimulating contrasts, but also would prompt individuals to concentration on specially fruitful topics, in preference to endless generalities." Therapeutic ambitions are prominent, and a high development in many practical directions, side by side with a striking traditionalism and nominalism. On the whole, "under the formal shell a sound practical sense exists." He refers to the works of Maudsley in the direction of introducing sound, and plausible views based on analogies of evolution and dissolution, which have not, however, stimulated productive work, and especially mentions Hughlings-Jackson, "the greatest philosopher and investigator among Anglo-Saxon neurologists." In Germany, there have been great experimental developments, widely divergent extreme views, and a growing confidence in clinical evidence, in the last respect following in the steps of the French, the founders and guardians of clinical methods. Two German alienists, Kraepelin and Wernicke, are at the centre of the modern movement in psychiatry, while Ziehen and Sommer occupy important places. These are the men who, more than any others, have emancipated psychiatry from neurology and histology. Kraepelin has always correlated psychiatry with experimental psychology, while Wernicke, though starting from the neurological standpoint, has ever insisted on scrupulous discrimination in symptomatology. They were inspired by Kahlbaum and Neumann, who, rather than Griesinger, should be considered the pioneers in psychopathology. Kraepelin, developing along the lines of clinical observation and experiment, was at first somewhat close to Wundt. Ziehen—by his attempt to found psychiatry on associational psychology, with some sacrifice of clinical conceptions of disease—served to bring out the characteristics of Kraepelin's divergent views. In the fifth edition of Kraepelin's textbook "the terms of a tradition of over 2000 years are overthrown. Mental symptoms are dethroned unless they are characteristic of etiology, course, and outcome." While Kraepelin accepts delusions, hallucinations, and the various symptom complexes as given by experience, and does not settle how or why they arise, Wernicke tries to study the machinery itself. Following in Meynert's footsteps and starting from his own investigations in aphasia, he is inclined to present all mental disorders in terms taken from the theory of aphasia. But this tendency is balanced by a strong sense for clinical observation. He always starts from the analysis of actual cases and "his descriptions have no equal in the entire literature of psychiatry." Meyer concludes

by emphasising the immense difficulties of the alienist's task on account of the uncorrelated and heterogeneous trends of experience by which he is confronted. "The greatest need we alienists have is a general recognition of sound pluralistic principles of experimentation, and in this direction the Anglo-Saxon mind, with its empiricism, seems to have a strong interest. The logic of a sound empiricism has no set form of classification, and is free to recognise the unfinished character of many of our stipulations."

HAVELOCK ELLIS.

The Investigation of Suggestibility in Nervous Disorders [L'Examen de la Suggestibilité chez les Nerveux]. (Arch. de Psychol., Aug., 1904.) Schnyder, L.

By means of a mock application of electricity, effected with the aid of an old rheostat, Schnyder, of Berne, has tested the suggestibility of over 200 patients (111 women, 92 men) suffering from various nervous disorders. The extremity of each cord of the apparatus was furnished with a metal ring into which the middle finger of each hand was placed, without any constriction. The experiment was always made near the beginning of a patient's treatment, and in a strictly uniform way; it was carried out in a quiet professional manner as though it were part of the treatment. The subject naturally expected to feel something, but no attempt was made to force the suggestion upon him; he was simply asked to say if he felt anything. Taken altogether, 54 *per cent.* of the individuals examined (53 *per cent.* of the men and 55 *per cent.* of the women) fell into the trap, and declared that they felt tingling, numbness, or other sensations, arising in the fingers, creeping up the arms, and sometimes overspreading the whole body. It was found that neurasthenic subjects, whether male or female, were decidedly more suggestible than the hysterical; among the women the suggestible were in the proportion of 77 *per cent.* for neurasthenia and 43 *per cent.* for hysteria, among the men 61 *per cent.* for neurasthenia and 44 *per cent.* for hysteria (though here the cases were few). Schnyder remarks that though the hysterical are undoubtedly highly suggestible it is their own auto-suggestion that they follow, while their defective attention makes them less easily suggestible from without. Persons affected with other nervous disorders were not numerous among the patients examined, and for the most part suggestibility was very much less than in neurasthenia and hysteria. Schnyder considers that this test may often be of practical use, in part to reveal a patient's psychic tendencies, and in part to demonstrate to him, if necessary, his own imaginations and the importance of self-control.

HAVELOCK ELLIS.

3. Clinical Psychiatry and Neurology.

A Contribution to the Study of Epigastric Voices and of the Psychical Hallucinations of Baillarger [Contributo allo Studio delle Voci Epigastriche e delle Allucinazioni Psicliche de Baillarger]. (Ann. di Neurol., fasc. i, ii, 1904.) Ansalone, J., and Patini, E.

The first part of this paper deals with the subject of epigastric voices, and especially with the following questions for consideration: How far

can Séglas' hypothesis, that they are all psycho-motor verbal hallucinations, be accepted? Is Lugaro's theory, that they are auditory pseudo-hallucinations, any more convincing or exact than Séglas'?

The authors, in the second half of the article, discuss the pathogenesis of psychical hallucinations, and seek to disallow their claim to an autonomous symptomatological entity.

Epigastric voices.—While allowing that the psycho-motor verbal element is present in some cases, they hold that common or ordinary movements of the tongue are often loosely diagnosed as specific movements of articulation. On account of the mental state of the patient, his tendency to morbid associations and his incapacity for minute introspective analysis, another hypothesis is tenable—that true auditory hallucinations are present, associated with lingual paræsthesia.

Lugaro's theory, that they are due to auditory pseudo-hallucinations associated with paræsthetic sensations in the parts of the body where they are localised, is next dealt with at length. The authors criticise the cases reported by this writer, and hold that in none of them was the epigastric voice phenomenon really present. They maintain that epigastric voices are pre-eminently a sensory disorder, while in pseudo-hallucinations this is wanting. Baillarger and Lugaro both held that one of the well-known characteristics of pseudo-hallucinations was the absence of *objectivity*. The authors question if epigastric voices, because localised within the body, lack this objective character present in true hallucinations. They quote Séglas on unilateral hallucinations and unilateral alternating hallucinations, whose view was that when a new morbid phenomenon (hallucination of hearing) obtruded itself on a patient whose attention was already fixed on some morbid process or paræsthesia in one ear, the former was by the patient projected into the latter situation. This holds true, they believe, for epigastric voices as well as unilateral auditory hallucinations. In the three cases which the authors present illustrating the epigastric voice phenomenon there were various paræsthesias. The first complained of gnawing in the right arm (where she also heard the voice), the second of epigastric constriction, the third of blows on her chest and epigastrium. Now, in addition to this association of the verbal hallucinatory phenomenon with visceral hallucinations, in all three cases ordinary hallucinations of hearing were also present, and the authors see in this a further confirmation of their views on the subject.

The authors draw the following conclusions :

There is no analogy between epigastric voices and pseudo-hallucinations. The latter are devoid of any sensory element, while this is the basis of the former.

In some cases the motor verbal element is undoubtedly present ; in others, and in the writer's opinion these constitute the majority, the prevailing element is the auditory verbal ; cases occur in which it is not clearly demonstrable how much is due to the motor and how much to the auditory element of speech.

Epigastric voices, although localised within the body, have the same objective character as true hallucinations.

Lugaro's hypothesis, that they are auditory pseudo-hallucinations associated with visceral hallucinations, is unsustainable.

In the second part of the paper the authors criticise at length the work done by Baillarger and Lugaro on the subject of psychical hallucinations. They think that the nomenclature is an unfortunate one, and deny that pseudo-hallucinations merit being classed as a separate entity. While agreeing with the above-named authors that there is no sensory factor nor any objective character present in these phenomena, they hold that these so-termed "pseudo-hallucinations," consisting as they do of convictions, thoughts, volitional ideas and determinations, although they appear to the patient to have an extraneous and unlooked-for character, nevertheless do not merit their name, as they have nothing sensory in their nature nor possess any analogy to hallucinations. What is most striking in these cases is the marked tendency they have to the elaboration of delusional ideas. The authors' contention is that the pseudo-hallucinatory phenomenon is due to a disordered state of the intellectual centres ("ideo-emotive spheres"), and that the so-called "psychical hallucination" is a delusional interpretation.

They conclude by saying that, since almost all these cases have the conviction that an outside influence dominates their ideas, these complex disturbances would be better indicated by the term "delusions of transmission, or possession, of the thoughts."

A. I. EADES.

Hallucinations (Journ. Ment. and Nerv. Dis., Nov., 1904). White, W. A.

In the author's opinion the generally accepted distinction made by Esquirol between illusions and hallucinations is erroneous, and his definition of the latter founded upon a complete misconception of the mental state in hallucination and of the nature of sensation. It is absolutely impossible for a centrally aroused idea to be mistaken for a sensation.

He then discusses at length and dismisses as incorrect the various theories (which he terms the central, centrifugal, and centripetal) which have been advanced to explain the feeling of externality and projection outwards of the hallucination.

Sidis' new theory, with which he is entirely in agreement, he suggests might be called the peripheral—a paradoxical expression from the standpoint of Esquirol—to distinguish it from those already mentioned. This theory is that secondary sensations (as seen in the so-called sound and pain photisms and light phonism) hold the explanation of hallucinations, and the author presents ten cases in great detail to illustrate how the phenomena as ordinarily experienced can graduate into a true hallucination.

A study of these cases has led him to the conclusions that to have a false perception there must be something to perceive, and that something is in the environment and can only enter as a factor into the mental life through the intermediation of sensations. Ideas cannot be perceived.

Hallucinations are secondary sensations either arising in the same sensory field, in which case they might be described as illusions in the sense of Esquirol, or arising in other sensory fields, in which case their secondary character is quite clear.

The mental state in illusions and hallucinations is identical. Given

the sensory elements, the falseness in their perception is due to central derangement.

Speaking of sensations, he points out that normally many are not appreciated at all, either because of their weakness or because of the preponderance of some other sensations, yet it is quite conceivable that they may enter as a factor into the formation of a mental state at the time. Thus it is that sensations that under ordinary circumstances would hardly, if at all, rise above the threshold of consciousness, for some reason or other acquire an unusual value, and being thus out of harmony with the actualities they represent, a false perception is the result. This is especially well shown in the phenomena of dream consciousness.

It is necessary, in order that the particular sensory stimulus receive the specific interpretation that stamps it as an hallucination, that there be a certain state of "preparedness" on the part of the mind. The mind of the patient with tinnitus aurium who hears a voice is especially attuned to respond in that particular way.

In conclusion, White states that he has never yet failed to find a peripheral pathological process in all hallucinated cases he has examined which could explain, directly or indirectly, the hallucinatory phenomena, and he would be loath to accept other than a peripheral explanation of any hallucinated case.

A. W. WILCOX.

On the Relation of Epilepsy to Amentia. (Brit. Journ. of Children's Dis., July, 1904). Tredgold, A. F.

In this paper Mr. Tredgold discusses the various modes in which epilepsy may be associated with mental defect. For convenience the term "epilepsy" is used to include so-called epileptiform convulsions also. It is the result of the examination of 600 cases, which he divides into three groups. In the first group he places cases of primary amentia complicated by epilepsy, which disease existed in 36 *per cent.* of such cases. He found a pronounced morbid heredity in this group. Stigmata of degeneration were marked except in the highest grades. Usually some degree of mental defect was noticed before the onset of fits. The degree of amentia was often much greater than could be accounted for by the fits, which were of moderate severity and frequency. In some cases in which a gross lesion co-existed paralysis was found.

The prospects of improvement under special training he observed to be dependent upon the severity and frequency of the fits, but on the whole to be better than in the other two groups, which he then proceeds to describe. The second group consists of cases of idiopathic epilepsy causing amentia (secondary), and it is to this group that in his opinion the term "epileptic" imbecility and idiocy should be restricted. It includes 3.5 *per cent.* of his cases. Morbid heredity was less pronounced, and the stigmata of degeneration were slight. The amentia was usually mild, but there was much dementia. No paralysis was present. The mental condition of these patients was normal before the commencement of the fits, which were severe and frequent. Their prospects of improvement under training were practically *nil*.

The last group includes gross cerebral lesions, causing epilepsy and amentia (secondary). There was no morbid heredity or stigmata of degeneration in the case of these patients, who were in a normal mental

condition before the onset of fits, which could generally be traced to some definite morbid process affecting the brain. Occasionally the seizures were epileptiform and rarely constant; rhythmic tremors were noticed. Paralysis was often present. The author found that the prognosis as to mental improvement was intermediate between that in the two former groups, and was dependent upon the time of occurrence, site, extent, and nature of the lesion, and upon the severity and frequency of the fits.

A. W. WILCOX.

Nasal Epilepsy [*Epilepsie Nasale*]. (*Gaz. des Hôp.*, Oct. 22nd, 1904.)
Sarvonat, M.

Nervous heredity and social standing are important factors in the etiology of this disease. Locally, almost any pathological condition of the nasal fossæ may be an exciting cause, including traumatism (operative and other). Local lesions act mostly as mechanical stimuli; but in some cases this is not evident, and smells, dust, etc., may excite an attack. The erectile tissue of the nose plays an important part in the pathogeny of nasal epilepsy, and the posterior situation of this tissue would explain the frequency of nocturnal attacks, on account of the increased congestion which occurs in the dorsal or recumbent position. The enthusiasm of Hack in the treatment of the nose by the galvano-cautery, and the subsequent cure of secondary neuroses, led Fraenkel to write in 1881 that the platinum loop had become a universal panacea; but a reaction against this view soon occurred. Nasal epilepsy is most common in children and young adults; nocturnal attacks are frequent; the attacks may resemble petit mal, or be restricted to simple vertigo; on the other hand, they may be typical of grand mal; the attacks are generally infrequent. It is interesting that no instance of an olfactory aura is recorded. The diagnosis is frequently made by chance: some nasal lesion is observed casually in an epileptic, and treatment effects a cure. Cocaine in temporarily checking reflex neuroses of nasal origin is important in diagnosis. The prognosis of nasal epilepsy is relatively favourable, because the nasal lesion is often susceptible of efficacious treatment—even in cases of long duration. The treatment is usually surgical, and directed to the nasal lesion discovered. General treatment should not be neglected, and very often the administration of bromides, which had been given without benefit before surgical intervention, is followed by rapid improvement after cure of the local lesions.

H. J. MACEVOY.

The Hypochondriacal Idea [*De l'Idée Hypochondriaque*]. (*Rev. de Psychiat.*, 1904, No. 5.) Marchand, L.

Hypochondriacal ideas are to be differentiated from melancholic ideas and those of persecution, and may be defined as ideas with self-accusing tendencies, provoked by a sad emotional state, without any character of negation and relating only to the personality of the patient. They are of importance in helping to appreciate the intelligence of the subject. In a few cases, an organic affection may determine the mental disorder in hypochondriasis, but in the vast majority of cases the mental disorder is the only one present. According to the varying intellectual

condition of the patient, we may observe degrees in hypochondriacal ideas; hypochondriacal preoccupations are found in comparatively sane people; hypochondriacal delusions, on the other hand, are the result of an erroneous intellectual interpretation, and illogical, and in hypochondriacal insanity we have multiple hypochondriacal ideas and delusions which have become systematised. Hypochondriacal ideas are of importance in the general diagnosis of various mental diseases, and are frequently found. Out of 695 cases, Marchand observed them in 52 cases (7.4 per cent.). They seem to be more common in men.

H. J. MACEVOV.

Trophic Ulcerations in Two Cases of Katatonic Dementia [Ulcerations Trophiques chez deux Déments Catatoniques]. (Nouv. Icono. de la Salpêtr., 1904, No. 6.) Trepsat, L.

In both these cases, after the existence for some time of pseudo-œdema, with marked swelling at the base of the big toes with intense cyanosis, there followed in one pemphigus and in the other a deep ulcer.

(a) —, æt. 36, drayman, developed mental symptoms two months before admission: ideas of negation, refusal of food, melancholia. A few months after admission pseudo-œdema, cyanosis, coldness, and swelling near the base of the big toes appeared. Three months later on the outer side of the right leg and on the left leg were noticed three circular ulcers, and two erythematous patches (one on each leg) 3-3½ cm. in diameter; and at intervals, subsequently, fresh patches appeared, while the early ones were cicatrising; so that nine months after admission scattered patches in different stages of their evolution were observed: (1) erythematous patches; (2) pemphigoid bullæ; (3) ulcers; (4) scars.

(b) —, æt. 24, labourer. Onset of mental symptoms at the age of 21 years. On admission into the asylum, melancholic, impulsive; two years later, demented, sullen, occasionally violent. In February, 1904, nearly five years after admission, white pseudo-œdema was observed on the dorsum of the foot. Four months later there appeared on the left leg, in front and just below the middle, a circular ulcer of the size of a five-franc piece, with a bright red base, sharply cut edges; and a little beyond it a smaller red patch with irregularly defined edges. The left leg was very œdematous from the foot to the knee. The ulcer slowly healed.

H. J. MACEVOV.

A Contribution to the Study of Dementia Præcox [Contributo allo Studio della Demenza Precoce]. P. Gonzales. (Riv. Speriment. di Freniat., vol xxx, fasc. iv.) Gonzales, P.

This is a preliminary communication on the subject of dementia præcox. The case was one of the catatonic variety, of a well-marked type. At first the patient, a young married woman, æt. 26, alternated between a state of semi-stuporose depression and a condition of excitement with hallucinatory ideas but with few delusions. A few months afterwards intellectual enfeeblement became marked. She passed days without speaking and became lost in her habits. Catatonic phenomena—

“*cerea flexibilitas*,” negativism, verbigeration, etc.—developed. She died two years and a half after admission. On *post-mortem* examination a marked depression of the upper and inner angle of the left parietal bone was found: no thickening of the dura, and but slight of the pia-arachnoid. Atrophy of the cells of the Rolandic areas, frontal lobes, pons, bulb, and cord was present, together with increase of the neuroglia. There was an advanced state of pigmentation observed in the cells of the motor areas, in the pons and medulla. In the Rolandic area this pigment was at times sufficient to occupy the entire cell body, though usually involving only the periphery.

The author claims to be the first to describe this marked pigmentary cellular change in dementia præcox.

A. I. EADES.

Vaso-Motor Disturbances in a Case of Hysteria [*Troubles Vaso-Moteurs chez une Hystérique*]. (*Nouv. Icono. de la Salpêtr.*, 1904, No. 6.) Génévrier, J.

This is the case of a girl who suffered from hysterical attacks and somnambulism in childhood; at the age of 15 she had visual and auditory disturbances, attacks of giddiness and falls. At the age of 17 large patches appeared on the legs: the skin over them became pale, then red, and liquid transuded from them. There was œdema of the legs and transient blindness. A little later a patch appeared on the abdomen, but lasted longer and became gangrenous superficially. Several superficial gangrenous patches then appeared in succession on the abdomen, the thighs, and backs of the hands and fingers. Paraplegia, cured by magnets, blindness, deafness, suicidal ideas—all of a transitory character—next occur in her history. Dr. Génévrier saw her at the age of 23, on account of gangrenous patches on the left leg. She had on admission typical stigmata of hysteria; white scars of the old patches were clearly visible. On the internal aspect of the left leg there was a gangrenous patch 10 cm. long and 4 cm. wide with a covering suggesting the appearance of diphtheritic membrane, dirty grey, uniform, and involving only the superficial layers of the skin. Around was a limiting zone, bright red and irregular, with a marbled and livid skin beyond. The leg was very cold. While under observation another but smaller patch appeared on the outer surface of the same leg, and other typical hysterical symptoms were observed (paraplegia, crises, anorexia). Discussing its causation, Génévrier inclines to the vaso-motor theory—prolonged vascular spasm causing gangrene. He discusses the possibility of auto-mutilation, only to discard the likelihood in this case.

H. J. MACEVOY.

The Mental Disorders of Neurasthenia. (*Medicine*, Aug., 1904.) Norbury, F. P.

The author agrees with Dana that the trend of modern neurological thought is towards “the passing of neurasthenia,” and assigning at least half the cases now so designated to the group of psychoses, calling the cases psycho-neuroses. He believes this to be a decided step in ad-

vance in clinical neurology and psychiatry, and to be the outgrowth of the refinement in diagnosis and classification inaugurated by Kraepelin.

In the clinical study of neurasthenia, we enter upon the consideration of the morbid states of the mind as revealed in introspection, morbid fears, obsessions, emotional disturbances, loss of will-power, etc. He is of opinion that the application of the neuron theory to morbid mental phenomena, and especially its extension to the study of subconsciousness, gives us a working hypothesis for the understanding of the special mental phenomena of neurasthenia. It also shows how closely allied, indeed, is neurasthenia with the more profound state of mental alienation, insanity. The underlying psycho-pathological process is the same and varies only in degree.

Speaking of introspection of neurasthenia, he says that it is caused by functional lowering of the excitability of the neuron, the chief factor being exhaustion or over-fatigue, with its attending malnutrition.

Morbid fears are but the continued evidence of nervous exhaustion. They vary with the same degree and insistence as do obsessions; pathologically speaking, they are practically the same, as the phobias are but another phase of obsessions.

He believes with Macpherson that obsessions are explained by a group of neurons in the ideational centres becoming hyperæsthetic or hypoæsthetic, or, in other words, by their becoming abnormally resistive or abnormally excitable. The result is dissociated action of the neurons. Allied mental states, prominent in neurasthenia, show indecisions, doubts, eccentricities of thought, aversion to society, etc. In speaking of the differential diagnosis he points out that neurasthenia should be diagnosed almost wholly by exclusion.

In conclusion, he mentions that it is not a disease to be treated by drugs, but by isolation or systematised rest, and, above all, he emphasises the importance of the gaining and keeping of the patients' confidence by the physician.

A. W. WILCOX.

Disorders of Reading, Speech, and Writing in General Paralysis [*Des Troubles de la Lecture, de la Parole, et de l'Écriture, chez les Paralytiques Généraux*]. (*Nouv. Icon. de la Salpêtr.*, 1904, No. 6.)
Jeffroy, A.

In studying the disorders of speech, reading, and writing in general paralytics, Jeffroy shows how much information may be gathered concerning the intelligence and memory of the patients, and their importance in differential diagnosis. In reading, articulation, intonation, and memory must be observed; no conclusion can be drawn as to the stage of the disease from the characters of the disorder, and no constant relation is found between the intellectual weakening and the difficulty of articulation. As regards speech, "arthrolatic" and "psycholatic" disorders call for separate notice—and as in the case of reading, these signs are not interdependent. Slowness of speech is often as characteristic as tremor, clipping, etc. in articulation. The alcoholic speech may be easily mistaken for that of the general paralytic by a superficial observer. Disorder in the choice of expressions—a tendency to the use of vulgar or common words—is of importance, likewise a defect in psychical co-ordination. Motor aphasia in general paralysis is nearly always a transi-

tory symptom observed early in the disease ; it may recur again and again. Sensory aphasia is less frequent ; it also occurs in attacks without loss of consciousness, and is transitory. It takes the form of verbal blindness and verbal deafness, sometimes of paraphasia, or even gar-gonaphasia. Calligraphic and psychographic disorders, although often difficult to separate, like the corresponding disorders of speech, are frequently of varying degree, and independent of each other. In addition to the common characters of the general paralytic's writing (elision, shakiness, irregularity, etc.), one notes infantile characteristics associated with senile characteristics, "choreism," and, as in the case of speech, the use of vulgar and indecent expressions. Writing is affected early in the course of the disease as a rule, but the degree of disorder is no guide to the stage of the disease. Agraphia, like aphasia, may be present without right-sided paralysis, and it is rarely persistent. The great variability in these disorders (arthrolatic, arthrolexic, calligraphic) is one of the characteristics of general paralysis.

J. H. MACEVOY.

On Disturbance of the Perception of Colours in General Paralysis
[*Störungen in Farbesinn bei Paralytischen*]. (*Allgem. Zeit. f. Psychiat.*, B. 61, H. 3.) Alter.

In a disease like general paralysis, in which so many parts of the nervous system are affected, there is a great variety of symptoms, all of which have not been studied with equal care. Dr. Alter had a patient in whom there was a derangement of the perception of colours. This induced him to look out for similar cases. He found that in general paralysis abnormalities of vision were much commoner than in healthy people. Only about one third of his general paralytics had a correct perception of colour, some of them having a higher, others a lower. A small group of paralytics had an unusual sensibility to the impressions of colour, what he calls a chromatic hyperæsthesia, especially in green and yellow. In one case the colours of objects appeared with dazzling brightness, but this acuteness of perception did not seem to be correspondingly correct as regards appreciativeness of the shades of colour. In assorting coloured wools the patient indicated rose colour as red, and blue as violet. In studying three cases Dr. Alter found that the derangement of the perception of colours often differed, seldom remaining the same at each observation. By perimetric measurements he found that while the sensibility of the retina to white remained the same, the field of vision for other colours was much circumscribed. This result is illustrated by three pages of plates. The chromatic derangements of vision were accompanied with increased blood-pressure.

In one of his patients there was a loss of the sensation of touch on the right side and loss of perception of colours on the same side, covering half the retina, Hemiachromatopsia homonyma, Dr. Alter observes that both these affections indicate cortical lesion in portions of the brain which are quite separate, and this is difficult to explain. In another case, a general paralytic, æt. 20, of one year's duration, the patient complained that he saw lights and shadows before his eyes ; presently he cried out, "What is that?" "I see as through two tubes." This appearance soon passed away, then he saw spots of all colours. On examination next morning Dr. Alter found

that there was a concentric narrowing of both visual areas for green, although in the former perimetric measurements no such peculiarity was noticed.

WILLIAM W. IRELAND.

The Circulatory Apparatus in General Paralysis of the Insane (Caledonian Med. Journ., April, 1904). Greenless, T. D.

Dr. Greenless found cardiac disease to exist in 15 *per cent.* and functional cardiac derangement short of organic disease in 43.5 *per cent.* of all his cases of general paralysis of the insane. The number of cases examined is not stated.

Aortic valvular disease was the most common organic lesion. In 54 autopsies the aortic valves were found to be shrivelled and incompetent in 11 cases, and in only 1 was the mitral valve likewise diseased. It is not mentioned in how many of these cases of aortic disease a history of syphilis was obtained.

The average weights of the hearts examined were below normal, although hypertrophy of the walls of the left ventricle was a common condition. He frequently found the basilar arteries diseased, their walls thickened, the vessels feeling tense and "gritty" under the finger. They were often irregular in contour, and presented occasional localised dilatations just short of aneurysms. The chief pathological interest in this disease is, however, he believes, centred in the cerebral arteries and arterioles, and he quotes from a paper written by himself nineteen years ago describing the changes he found in these vessels. He then discusses the various theories which have been advanced as to the etiology and pathology of this disease.

A study of the clinical symptoms of general paralysis in its earliest stages, with its delicate mental and motor manifestations, would seem to indicate, he thinks, an early impairment in the functions of the cerebral cells, and such change is evidently of an irritative character; it is reasonable to infer that this cellular irritation is caused by a foreign body—shall we call it a bacillus?—floating in the pericellular channels, and exercising a direct intoxicating or poisoning effect upon the cell itself. As this poisoning is a continuous process, and as it is evident that the poison is an accumulative one, the cell ultimately dies, and terminal dementia as regards the mind and general paralysis as regards the body result, being the manifestations of the death of the cerebral neural elements.

The author next treats of the pulse in general paralysis of the insane, giving examples of pulse tracings taken from seventy-nine patients, in all stages of the disease, and in conclusion observes that it may be safely said that a consideration of the heart, blood-vessels, and the pulse in this disease indicates the direction in which any investigation having for its object the elucidation of its etiology and pathology should take.

A. W. WILCOX

Problems in Psychology. (The British Medico-Chirurgical Journal, Dec., 1904.) Eager, R.

Dr. Eager, in his presidential address to the members of the British Medico-Chirurgical Society, speaks of the reluctance of the patient's friends, and even of his medical adviser, to admit that he is insane. In

the case of the former, this is often due to ignorance, or to a wish to avoid the stigma which is supposed to attach to a family a member of which has been certified to be insane; in the latter, it may be due to a wish to avoid the responsibility of signing a certificate. He points out that medical men forget that they are protected by the Consolidated Lunacy Act of 1890. He fears that many apparently are unacquainted with this Act, and do not even read the printed advice and regulations attached to the present form of certificate before signing it. He strongly disapproves of the term "borderland" insanity. Apparently he regards all such cases as incipient insanity, and is of opinion that they would be best treated in an asylum.

He suggests that there should be an institution with extensive and well laid out grounds in every town of fair size, with villas, cottages, and dwelling-places which would admit of a strict classification of patients. Each patient, on arrival, would be seen at once by the physicians attached, and sent to that part for which his case was deemed suitable. Suicidal and homicidal patients, and those whose treatment would necessitate force and interference with their personal wishes would be detained until seen by a magistrate, who would sign an order for them to be sent to a central hospital built and adapted especially for such cases. Similar action would be taken in the case of patients already in other parts of the institution when it became necessary. In this way he believes that the necessity for certificates and all the vexing and trying methods now in use would cease, and that it would make prompt treatment as easy for insanity as for any other disease.

A. W. WILCOX.

A Case of General Paralysis after Typhoid Fever with Complete Recovery [Ein Fall von Dementia Paralytica nach Typhus Abdominalis mit Ausgang in vollkommener Heilung]. (Monats. f. Psychiat. u. Neurol., December, 1904.) Von Foerster, Otfrid.

Dr. Foerster observes that the symptoms of general paralysis vary with the portions of the nervous system first attacked. The disease is the result of a specific poisoning which attacks the fibres and cells of the brain and spinal cord, sometimes more severely in one region than in another. Wernicke has shown that after long-continued excesses in alcohol the same parts may be affected so as to produce similar symptoms, to which he has given the name of alcoholic pseudo-paralysis. In this form there is often great improvement or complete recovery.

The case which he describes was a man, *æt.* 42, always healthy, without a syphilitic or alcoholic history. For thirteen years he had discharged the duties of the city fireman; he had been married for ten years and had five healthy children. He was taken ill in September, 1890, of enteric fever and remained in a very weak state till the beginning of January, 1901. His wife now noticed a change in his whole condition; he would sit for hours brooding, scarcely speaking, and was indifferent to his family and inattentive to his dress. In the beginning of March he was admitted to the Poliklinik of the University of Breslau, under Professor Wernicke, when he presented the usual symptoms of general paralysis. There were disordered movements of the muscles

of the face and tongue, tremors of the body and limbs, increased patellar reflex, affection of speech, loss of writing power, loss of attention, and great deficiency of intelligence. No other cause could be assigned for the disease save the attack of typhoid fever. There was little change in the symptoms till the beginning of June, when he was transferred to a convalescent hospital, when he began to improve. In August he was allowed to leave the hospital for a change; in October he was found to be much improved, and at the end of the year he was able to return to his former work apparently in perfect health, all the nervous symptoms having disappeared. The author believes this case to be unique.

WILLIAM W. IRELAND.

Migratory Impulses in an Imbecile [*Impulsioni migratorie in un imbecile*]. (*Riv. Speument. di Freniatria*, vol. xxx, fasc. iv.) *Neyroz, N.*

This is an account of an imbecile lad who managed to escape from the asylum repeatedly, and seemed to desire to do so in order that he might visit various places with a view of cataloguing his experiences and writing an autobiography on his return. He was *æt.* 16, could read and write; had no moral sense, power of reasoning and deduction small, memory below the normal, but he was very cunning and plausible in his manner.

The author gives several extracts from the lad's writings, and these afford an interesting insight into his peculiar mentalisation. The boy always had his plans arranged most carefully before his flight by the aid of atlases and geography books, but his limited powers of synthesis prevented his using these to any advantage, and he showed his weak-mindedness by asking his way from anyone he met, and always carried his autobiography with him, although his name and that of his asylum were in prominent letters on it. He exhibited none of the impulsiveness and ambulatory automatism met with in hysterical and epileptic cases under similar conditions. He was a true vagabond. His mania for cataloguing what he saw might be termed almost an obsession ("obsession for indexing"). An extract from one of his descriptions well illustrates this, *viz.*, "Padua: I visited the Sacred Square, entered the church, visited the Park Square, the Caffè Pedrocchi," etc. Many of the towns which he visited, and the sights of which he describes with such apparent accuracy, he must have passed through at night, and probably saw nothing but the streets which he traversed, so that his inventive powers were freely called into play in order to give a complete appearance to the journal of his travels.

A. I. EADES.

On the Toxicity of Methyl Alcohol in Extracts and Medicines. (*Quart. Journ. of Inebriety*, April, 1904.) *Main, H.*

The author gives a very summary account of a fatal case of poisoning by methyl alcohol occurring in his practice. The patient, *æt.* 44, an inebriate, being unable to get whiskey, drank instead "for several days" a liquor called "lemon extract" containing a large amount of wood alcohol. Failure of vision suddenly came on, reaching total blindness in twenty-four hours. This was accompanied by headache, nausea, rapid

pulse and increasing dyspnoea, followed in a few hours by coma and death. No ophthalmoscopic examination was made, and apparently no autopsy.

Referring to the literature of the subject, the author points out that the use of wood alcohol in culinary and medicinal extracts is of recent development. Very few cases of poisoning were reported prior to 1897, but since that year they have been numerous, especially in "dry" or prohibition towns, where "peppermint essence," "Jamaica ginger," and other beverages with a basis of methyl alcohol are extensively used. Experiment and clinical observation both appear to show that there is much individual difference in susceptibility to wood alcohol, and that probably only a minority of drinkers suffer from the more serious toxic effects. On the other hand, cases of total blindness have been recorded after very small doses (5.6 grammes and 7.5 grammes). References to the literature of the question are given.

W. C. SULLIVAN.

Obsessions and Sexual Life [*Obsessions et vie sexuelle*]. (*Arch. de Neurol.*, vol. xviii, No. 106, Oct., 1904.) *Marandon de Montyel*.

In this paper the author records three detailed clinical observations of obsession, which, he considers, are in contradiction with the view of Freud, that this neurosis is always of sexual origin, and that its specific cause is the accumulation of sexual tension produced by abstinence or incomplete intercourse.

In the three cases the patients were hereditary degenerates with deviations of sexual appetite, one being a masochist, and the other two fetichists. In all three the obsessions, which were of several varieties, developed only after excessive and abnormal sexual gratification, and disappeared when the patients broke off their eccentric practices.

The author concludes that, while the sexual function undoubtedly plays an important part in the genesis of obsession, it does so only in the hereditarily predisposed, and that its mode of action in these persons is more often through excess and irregularity than through abstinence.

W. C. SULLIVAN.

4. Pathology of Insanity.

Notes on Malignant Growths in the Insane. (*Amer. Journ. of Insanity*, vol. lx, No. 3, 1904.) *Knapp, J. R.*

The author quotes the statistics from the Manhattan State Hospital to show that malignant growths are more than twice as frequent among the insane as among the adult population at large, and nearly four times as frequent among the insane compared with the general population. He found that malignant growths run a more rapid course in the insane, and that the deaths among female patients exceeded those among males in the ratio of two to one. He then gives brief detailed descriptions of 31 cases dying from malignant disease, 22 being cases of carcinoma, and 9 of sarcoma, 5 of the latter being instances of sarcoma of the brain.

He concludes with a plea for the systematic study of the insane suffering from malignant growths, believing that, as these patients present in such a pre-eminent degree well-recognised evidences of lost inhibitory

control, associated with grave metabolic-tissue changes, such study would throw light upon the causation of these growths.

A. W. WILCOX.

Note on the Frequency and Distribution of Nævi in the Insane [Note sur la fréquence et sur la distribution des nævi chez les aliénés]. (Arch. de Neurol., vol. xviii, No. 105, Sept., 1904.) Féré and Mouroux.

With the assistance of Mlle. Mouroux, Féré has investigated this question in 349 patients at Bicêtre. They have found that 279 cases while under observation developed new skin growths, either vascular or pigmentary nævi or molluscum tumours. Of the other cases, 10 only were quite free from congenital or acquired cutaneous abnormalities. On the other hand, Halopeau in 62 sane patients found 28 without nævi. Féré attributes the frequency of such anomalies in the insane to disorders in the evolution, or later, in the function of the nervous system.

Observations were made as to the incidence of nævi in certain groups of insane patients, with the following results :

	Senile dements (26 cases).	Imbeciles (60 cases).	General paralytics (58 cases).
Pigmentary nævi	92·3 per cent.	85 per cent.	86·2 per cent.
Vascular „	96·15 „	27·36 „	74·14 „
Molluscum .	92·3 „	63·33 „	70·68 „

Nævi were met with chiefly on the trunk and upper limbs, less frequently on the legs.

Some observers have thought that these skin conditions were frequently associated with cancer and with hepatic disease, but nothing confirmatory of this view was found by Féré.

W. C. SULLIVAN.

The Relation of the Brain to Transposition of the Viscera [Verhalten des Gehirns bei Situs viscerum transversus]. (Allgem. Zeit. f. Psychiat., B. 51, H. 5.) Weygandt.

Dr. Weygandt had occasion to examine the body of a former patient of neuropathic heredity. He found a transposition of the viscera, which induced him to consider the question as to whether this abnormality is associated with mental degeneration. He observes that Rüdiger has shown that the third frontal convolutions weigh more on the left side, at least in highly educated persons, and the histological investigations of Käs have shown that there is a richer development of nerve-fibres in the insula on that side. In Weygandt's case the third frontal gyrus on the right side was better developed than the left ; on the left side the surface of the insular lobe amounted to 3·98, and on the right 5·61 ; on the right insula there were four divisions, on the left only two. The author thinks that *situs transversus* is not infrequently combined with mental degeneration. He regards left-handedness as an instance of this abnormality, and that it is owing to a greater development of the speech centre on the right side of the brain.

WILLIAM W. IRELAND.

Action of Pyridin on Nervous Tissue [*Azione della Piridina sue tessuto nervoso*]. (*Ann. di Neurol., fasc. i, ii, 1904.*) Donaggio, A.

In this paper Donaggio gives in detail the methods by which he has succeeded in staining the endocellular and pericellular networks of the nerve-cell. In his former valuable contributions on this subject he clearly demonstrated the presence of these reticula, but he found the method he then employed inconvenient and the results not always constant. His attention was drawn to a substance which, according to de Souza, was an excellent mordant for aniline stains. This substance, pyridin, he found to admirably suit his purpose when employed in the following manner :

He fixed and hardened his tissue in pyridin, placed it *en bloc* in a very dilute aqueous solution of thionin (1 per 10,000), fixed the colour with molybdate of ammonia (4 *per cent.*), to which was added one drop of hydrochloric acid per grm. of molybdate, and, after washing in water, passed it through paraffin in the ordinary way. This may be called Experiment No. 1, and the results of this were the following : In the greater part of the tissue, especially after the superficial sections were removed, the *pericellular* network stained with the greatest clearness. In the more superficial sections could be seen the endocellular reticulum and some longitudinal fibrils. These disappeared on cutting down farther into the tissue, leaving, as before mentioned, the pericellular network alone stained. Hence he came to the conclusion that pyridin favoured almost exclusively the staining of the *pericellular* reticulum when used in this manner.

Pyridin, in its pure form, is neutral to reaction, but an aqueous solution, such as he used in this experiment, is alkaline. Donaggio holds that this alkaline reaction is unfavourable to the staining of the chromophile elements, and hence it occurs that the fibrils take the stain instead. In addition to this, pyridin, according to de Souza, has a solvent action on fat and deprives fibres of a great part of their myelin sheath.

In Experiment No. 2 he proceeded in much the same way, except that the tissue was first fixed in sublimate and washed in iodine water before being put into pyridin and treated as before. As a result of this change he obtained a distinct staining of the *endocellular* network, and also of long fibrils at the periphery of the cell, the latter resembling those described by Bethe.

Now, in both cases the stain did not penetrate the whole of the tissue. Accordingly he stained this uncoloured portion *in section* with the same thionin solution as it had been previously stained with *en bloc*, and found, in the case of the pyridin fixation, exclusive staining of the endocellular reticulum and long fibrils in the case of the sublimate fixation a similar coloration of these, though not so complete, and in addition the Nissl bodies were partly stained. Hence he concluded that staining *in section* after fixing and hardening in pyridin gave the clearest results for the exhibition of the *endocellular* reticulum by itself. The pyridin he used was pure (Merck). He hardened for five to six days, and subsequently washed in distilled water till all trace of it had gone, passed through molybdate of ammonia acidulated, as before described, for twenty-four hours, and after washing in water, cut in paraffin and stained. If nitrate

of pyridin were used (72 parts of pyridin to 28 parts of a 50 per cent. solution of nitric acid), the fixation and hardening time could be reduced to two and a half days. The tissue is put in the nitrate for twenty-four hours, and then in pure pyridin for thirty-six hours.

The peculiar action of pyridin and the importance of its position in the various stages of hardening, etc., is well shown by the following experiment. If the tissue is fixed in sublimate, washed in iodine water, hardened in pyridin (forty-eight hours), passed, after washing in water, through the molybdate, washed in water, stained *en bloc* in thionin, put again in molybdate, passed through paraffin and cut, the sections show the *endocellular* reticulum. If, however, after washing out the molybdate, and before staining, the tissue is put *again* in pyridin (forty-eight hours) it is the *pericellular* reticulum that takes the stain. This is the method he advocates for staining the latter network. A. I. EADES.

5. Sociology.

Criminal Responsibility. (*New Zealand Med. Journ.*, April, 1904.)
Gow, W. B.

Dr. Gow is astonished at the fact that in a recent trial for rape in which he was engaged the judge held himself bound by the finding in the McNaghten case, *i.e.*, that the only test of the prisoner's sanity or otherwise was the knowledge of right and wrong in relation to the act committed.

At the time of writing this paper he was evidently unaware that the New Zealand Criminal Code in so many words adopts the rule in McNaghten's case, so that it was out of the question for the judge to do otherwise.

The author states that for years some judges in England have departed from this "judge-made" law, and have determined their cases according to the higher law of humanity. He quotes Mercier's reports and comments on several cases recently tried in this country in support of this assertion. He suggests that a criminal found to be insane should be sent to a criminal asylum, but that if his condition be one of limited or partial responsibility he might undergo an indeterminate sentence in a reformatory or prison school until such time as it be deemed safe for the public that he might receive his liberty. Finally, he agrees with Clouston that medical expert witnesses, after being supplied with full details of the case, should be allowed to furnish a report, and on this report they should be cross-examined. A. W. WILCOX.

Hospital Provision for the Insane Criminal (*Proc. Amer. Medico-Psych. Assoc.*, May, 1903.)

Insanity in Penal Institutions and its Relation to Principles of Penology.
(*Albany Med. Ann.*, December, 1903.) Allison.

These two papers by the distinguished superintendent of the Matteawan Asylum deal with a question which has much actuality in this country as well as in the United States, *viz.*, the proper disposal of criminal defectives. Dr. Allison emphasises the need of special institu-

tions for individuals of this class, whether definitely insane or of such a degree of mental debility as to be incapable of adapting themselves to the conditions of free life. He points out that their presence in prisons is subversive of discipline, and tends to lower the efficiency of the penal system as a means of mental and manual training for the sane offender. "Jails and reformatories would do much better work if those who are insane or idiotic or imbecile could be weeded out and sent to proper places of detention which would care for them permanently, or at least until they were reasonably safe to be at large, should they ever arrive at such a condition of mind and morals." At the same time, such individuals, by reason of their criminal tendencies, are most undesirable inmates in ordinary hospitals for the insane.

Dr. Allison notes that a large proportion of criminal defectives in American prisons are immigrants from Europe. This fact has led to the recent amendment of the law, extending the probation period for aliens to three years in cases of insanity or criminal conduct.

W. C. SULLIVAN.

The Distribution of Genius in Italy [Per la Distribuzione Regionale della Genialità in Italia]. (Arch. di Psichiat., vol. xxx, fasc iii, 1904.) Capelli.

With a view to applying a statistical test to Lombroso's theory of the pathological nature of genius, the author has contrasted the distribution of talent in the several provinces of Italy with the incidence of a variety of biological and biosocial phenomena. The genius or talent considered is exclusively contemporary, and its criterion is apparently inclusion in a sort of Italian *Who's Who?* The position of the various provinces with regard to this kind of intellectual distinction is then compared with their rank in the scale of cranial capacity, stature, insanity, epilepsy, alcoholism, suicide, illegitimacy, cretinism, physical unfitness for military service, education, wealth, and density of population. The results, given in detail in a series of tables, are held by the author to show that there is a general correspondence in prevalence between genius and the high ratios of these several conditions, though he admits a good many exceptions.

Tuscany, Latium, and Venice show the highest figures for genius, and also rank well in cranial capacity, stature, education, and wealth. Tuscany and Venice rank high and Latium low in alcoholism and epilepsy. In the provinces which are at the bottom of the list for genius, namely, Puglia, the Abruzzi, and Calabria, the other phenomena show a fairly close correspondence, except that cranial capacity in the Abruzzi is remarkably high. The author seems to find no difficulty in interpreting his results as a striking confirmation of Lombroso's views.

W. C. SULLIVAN.

On Objective Symptoms not under the Control of the Will and their Medico-Legal Importance [Des Symptômes Objectifs que la volonté est incapable de Reproduire et de leur Importance en Médecine-Légale]. (Gaz. des Hôp., Oct. 11th, 1904.) Babinski.

In this lecture, delivered at the Pitié Hospital by Babinski, he reviews the characteristics of objective symptoms which are not capable

of being simulated and dwells on their importance in diagnosis. Ophthalmoscopic signs are essentially of this nature. In dealing with paralyzes, the law may be formulated that although we meet with functional palsies, yet the will is powerless to reproduce any paralysis identical with that due to alteration of nerves. Examples of this are found in the case of extensor paralysis of the arm and various ocular paralyzes. The will has no influence on the tonicity of muscles and is incapable of dissociating certain muscular movements which are constantly associated in ordinary actions. Facial palsy, for example, may be *absolutely* differentiated from hysterical hemispasm on the opposite side by noting "Bell's sign" when the eyes are closed: the eyeball on the paralysed side being moved upwards during this effort while the lids are immobile points to the association of an alteration of the facial nerve, with integrity of the motor oculi, and to a paralysis which cannot be psychical. Nystagmus accompanying nuclear paralysis of the sixth nerve is another absolute sign. Abolition of the light reflex of the pupil Babinski considers one of the most remarkable symptoms in nervous pathology; and from his recent work with Nageotte on the examination of the cerebrospinal fluid, he believes it to be intimately related with a meningitis. Much importance is often attached to inequality of the pupils, but in itself it may be of no clinical value. It is only when we find that in the case of the smaller pupil there is also narrowing of the interpalpebral slit and exophthalmos that we may be sure of a lesion of the cervical sympathetic. Paralysis of accommodation can only be absolutely relied upon as a pathological symptom when confirmed by experiments with special lenses which eliminate the possibility of simulation. When dealing with the larynx, one of the most valuable signs in diagnosis is unilateral paralysis of the vocal cord.

In the case of tendon reflexes the knee-jerk is not the only one of interest, although it is often the only one tested. Disappearance of the Achilles reflex is of importance in the diagnosis of sciatica (from neuritis) and tabes. True ankle clonus is never observed in hysteria, according to Babinski. Cutaneous reflexes, long considered as of secondary importance only, are, on the contrary, most valuable. A careful analysis of these phenomena (deep and superficial reflexes) and careful observation should always enable one to exclude simulation.

The use of electricity, the study of electrical reactions, is also of the highest importance. The alteration which an auricular lesion causes in voltaic vertigo, although comparatively little known, is of much practical value. A patient says he is deaf, but no alteration is discovered in the middle ear or internal ear; if in such a case, with a current of 15 or 20 milliampères, one produces neither nodding nor lateral rotation of the head, one may affirm that there is some labyrinthine lesion present, and hysterical deafness or simulation may be excluded.

Trophic lesions, circulatory and secretory disturbances in a paralysed limb are all of major importance.

Circulatory disturbances constitute one of the most characteristic signs of an epileptic fit and differentiate it from hysteria. The toe phenomenon of Babinski, and true, leaden lividity of the lips are characteristic of the former, and perhaps the only phenomena of the fit which cannot be simulated.

In conclusion, Babinski lays stress on the importance of not overlooking the possibility of the association of functional with organic disease ; the mere discovery of one or more positive or absolute signs of nervous disease does not exclude the idea that there may be associated simulation or self-suggestion. Cases of this kind are often complex and difficult to diagnose accurately.

H. J. MACEVOY.

Burial Certificates for Suicides [*Über Beerdigungsatteste bei Selbstmorden, Von W.*]. (*Allgem. Zeit. f. Psychiat., B. 51, H. 4.*) Weygandt.

Dr. Weygandt treats of the difficulties which attend the mental condition of persons who have committed suicide : their sanity may be questioned in the proving of a will or by a life insurance company, for there have been instances of men in pecuniary distress insuring their lives and then committing suicide in order that their families should reap the benefit. The author tells us that with most of the German insurance companies the act of suicide, if committed within five years of the time of first payment, makes the insurance void. There is a difficulty, especially in Catholic countries, about the burial of suicides in consecrated ground. Dr. Weygandt tells us that some jurists seem to think that medical men are able from an examination of the brain after death to ascertain whether the person was insane before death ; this is putting a trust upon pathological skill which it will scarcely bear. In the present state of our knowledge it is only in general paralysis, senile dementia, and idiocy that a trustworthy diagnosis could be made. Dr. Weygandt mentions a case in which he himself along with a former superintendent of an asylum were asked to give their opinion about the mental condition of a man who had committed suicide when *æt.* 67 from an examination of the brain two days after death. He gives a long description of a man, the keeper of a large cemetery, who was imprisoned on a charge of rifling the dead : this man committed suicide in prison. An examination of his body was made by a professor of pathological anatomy along with two physicians. The lesions found were thickening, adhesions of the dura mater to the cranium in the frontal region, and slight adhesions about the longitudinal sinus. They gave the following cautious certificate : "It cannot be maintained that these abnormalities have no connection with the mental derangement of the deceased. He has always shown an excited character." Apparently the clergy took a charitable view of this meaningless certificate, and allowed the man to be buried in the churchyard at Würzburg ; but a mob of people tried to prevent this, maintaining it to be disgraceful that a man under a criminal charge who had committed self-destruction should be allowed a Christian burial ; it was with difficulty that they were appeased.

Heller, from an examination of the bodies of three hundred suicides, states that he has found in one hundred and twenty-nine cases (*43 per cent.*) alterations which should impair responsibility. Amongst these there are cases of undoubted insanity and delirium from drinking and fevers, disordered menstruation, and parturition. He distinguishes impairment from complete loss of responsibility. In *8 per cent.* of his cases no alterations were noticed ; *39 per cent.* showed alterations which

did not impair responsibility ; in 18 *per cent.* such affection was possible, but not certain. It seems extremely hazardous to measure the degree of mental derangement by the alterations found in the brain after death.

WILLIAM W. IRELAND.

The Movement of the Asylum Population in the Netherlands during the Second Half of the Nineteenth Century (De loop der bevolking in de Nederlandsche krankzinnigengestichten gedurende de tweede helft der negentiende eeuw). Schermers.

Dr. Schermers observes that although several new asylums have been erected within the last few years the accommodation has not kept pace with the increasing number of patients, so that in Amsterdam and Rotterdam some have to be kept in the prisons. Since 1850 the number of the insane has increased in greater proportion than the general increase of the population. In the ten years from 1850 to 1859 the average number of lunatics was 1661—that is, 797 males and 864 females ; in the last decennium the number had risen to 6899—3440 males, 3459 females. In the first decennium there were 5·16 insane—5·02 males and 5·31 females—to every ten thousand inhabitants. In the last decennium there were 14·42—14·53 males and 14·31 females. Every year shows an increase of about 200 patients, or 0·30 for every ten thousand of the general population.

The number of admissions has also increased. In the first decennium the average number of admissions was 603 ; in the last decennium it amounted to 1545—that is, 789 males and 756 females. Thus the number of male admissions has become greater than that of females, especially since 1884, when a new lunacy law was introduced.

The absolute number of those discharged cured has been increased. In the first decennium they were 231—106 males, 125 females ; in the last ten years they were 541—249 males and 292 females. Relatively the figures are not so favourable. In the first decennium the proportion to the admissions of those cured was 38·1 *per cent.*—35·2 males, 41·0 females ; in the last it was 35 *per cent.*—31·5 males, 38·6 females. The number cured in proportion of the total treated was in the first decennium 10·19—9·64 males, 10·71 females ; in the last 6·40—5·86 males and 6·93 females. There is thus an accumulation of chronic lunatics going on. The death-rate in the first decennium was 211—118 males, 93 females ; in the last 603—322 males, 281 females. This mortality was for the first decennium 9·18 *per cent.*—10·62 males, 7·82 females ; for the last 7·18 *per cent.*—7·65 males, 6·70 females.

In conclusion Dr. Schermers observes that the accumulation of chronic patients in the existing Dutch asylums blocks the reception of acute cases. He recommends that the asylums should be relieved of these chronic cases by boarding-out and by colonies for the insane.

WILLIAM W. IRELAND.

Part IV.—Notes and News.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

ADJOURNED ANNUAL MEETING and QUARTERLY MEETING, held at No. 11, Chandos Street, Cavendish Square, London, Thursday, May 18th, 1905; Dr. Percy Smith, President, in the Chair.

The following members were present:—Drs. Henry T. S. Aveline, Fletcher Beach, George F. Blandford, C. Hubert Bond, David Bower, Arthur N. Boycott, Lewis C. Bruce, James Chambers, Crochley Clapham, Robert H. Cole, Harry Corner, Maurice Craig, William R. Dawson, James H. Earls, Frederic W. Edridge-Green, G. Stanley Elliott, Horace E. Haynes, John W. Higginson, H. Gardiner Hill, Charles K. Hitchcock, J. Carlyle Johnstone, Robert Jones, Wilfred Kingdon, Richard J. Legge, Henry B. MacBryan, Peter W. Macdonald, Chas. Mercier, Bedford Pierce, Evan Powell, Thomas D. Savill, George E. Shuttleworth, R. Percy Smith (President), W. Maule Smith, Robert H. Steen, Frederic R. P. Taylor, David G. Thomson, T. Seymour Tuke, Albert Watson, Lionel A. Weatherly, Edmund B. Whitcombe, Ernest W. White, Albert Wilson, T. Outterson Wood, David Yellowlees.

Apologies from Drs. George Braine-Hartnell, Michael J. Nolan.

Visitor—Dr. Horace G. Lankester Haynes.

The minutes of the previous meeting, having already appeared in the April number of the JOURNAL, were taken as read.

The PRESIDENT said that since the last Meeting Sir John Sibbald, who was President-elect, but was obliged through ill-health to resign that office, had died. The whole Association must feel that it had sustained a very great loss by his death, and he asked the meeting to consent to the Secretary and himself drawing up a suitable expression of condolence with the relatives of Sir John Sibbald. Agreed.

ADJOURNED ANNUAL MEETING.

Dr. YELLOWLEES said it was scarcely necessary to announce, because the whole Association was aware of it from the circulars which had been sent out, that the Statistical Committee had not yet been able to complete its work. The Committee began by asking every member of the Association for suggestions as to what was thought most desirable in the new tables. At first scarcely any suggestions were received, but now, when nearing the close of its labours, suggestions were coming in most abundant numbers. Divisions had been consulted twice over, and full reports of the second reference had not yet come to hand. He regretted to say that Scotland was last in that respect. If the meeting thought proper to allow the matter to stand over until the day preceding the Annual Meeting in July next, he thought it would then be possible to lay before the members the completed work. He therefore proposed the resolution on the agenda—"That this adjourned Annual Meeting be further adjourned to the day preceding the Annual Meeting to be held in July next."

Dr. BOND seconded the resolution.

The PRESIDENT said it had been moved and seconded that the adjourned Annual Meeting be further adjourned to July 19th. The 20th and 21st were the days fixed for the next Annual Meeting, therefore the present meeting would have to be resumed on July 19th. Carried.

QUARTERLY MEETING.

The following were elected ordinary members of the Association:—Alcock, Benjamin James, M.B.Aberd., Ch.B., Assistant Medical Officer, James Murray's Royal Asylum, Perth (proposed by A. R. Urquhart, Lewis C. Bruce, and A. R. Turnbull); Clarke, H. Minchin, L.R.C.P.&S.I., L.M., Assistant Medical Officer,

Cornwall County Asylum, Bodmin (proposed by H. A. Layton, H. Hayes Newington, and Robert Jones); Gordon-Munn, John Gordon, M.D., F.R.S.E., Heigham Hall, Norwich (proposed by D. G. Thomson, J. Fielding, and A. McWilliam); Hector, G. W. K., M.D., L.R.C.P.&S., Assistant Medical Officer, East Riding Lunatic Asylum, Beverley (proposed by M. D. Macleod, H. Hayes Newington, and Robert Jones); Jackson, Arthur M., B.A., M.D.Oxon., Medical Superintendent, Notts County Asylum, Radcliffe-on-Trent (proposed by A. R. Urquhart, Bedford Pierce, and Robert Jones); Johnson, Smeeton, M.B.Lond., L.R.C.P., M.R.C.S., Assistant Medical Officer, Rainhill Asylum, nr. Liverpool (proposed by J. Wigglesworth, J. S. Bolton, and Robert Jones); Lawson, William Wilfred James, M.B.Aberd., Ch.B., Assistant Medical Officer, Berks County Asylum, Wallingford (proposed by A. R. Urquhart, Lewis C. Bruce, and A. R. Turnbull); Salter, Charles Edward, M.D.Lond., B.S., F.R.C.S.Eng., L.R.C.P.Lond., Surgeon to the Scarborough Hospital, 34, Prince of Wales Terrace, Scarborough (proposed by Bedford Pierce, Henry J. Mackenzie, and Robert Jones) (through Hon. Sec. N. and M. Division); Ross, M. Sheila, M.B., Assistant Medical Officer, Holloway Sanatorium, Virginia Water (proposed by W. D. Moore, H. Hayes Newington, and Robert Jones); Smith, George W., M.B., Assistant Medical Officer, Holloway Sanatorium, Virginia Water (proposed by W. D. Moore, H. Hayes Newington, and Robert Jones); Stewart, Fredk. William, B.A., M.B., B.Ch., B.A.O.I., Assistant Medical Officer, Kent County Asylum, Barming Heath, near Maidstone (proposed by H. Wolseley Lewis, H. Hayes Newington, and Robert Jones); Tidbury, Robert, M.D., R.U.I., M.Ch.&L.M., Assistant Medical Officer, The Borough Asylum, Ipswich (proposed by Edmund L. Rowe, H. Hayes Newington, and Robert Jones).

The PRESIDENT announced that the Council had, owing to a communication from the Irish Division, sanctioned the introduction at that meeting of a discussion concerning the Youghal Asylum, Cork. He would ask Dr. Mercier to bring the matter forward.

Dr. MERCIER said a very remarkable state of things indeed at present existed in the Youghal Asylum, at Cork, the particulars of which members were probably already acquainted with from the daily papers. Those who read the Parliamentary reports would have seen a reference to the matter, and also from reports appearing from time to time in the professional papers. He would therefore forbear detaining the meeting at length by detailing the condition of affairs at that institution, and would be content to read the following resolution, which he had drafted to meet the case. Any further information required could be obtained from Dr. Dawson, who was present, and knew all the facts. The resolution was as follows:

"This Association is informed that the Auxiliary Asylum at Youghal is being carried on under the following conditions:

"1. The staff consists, in addition to 8 nuns, of 8 male and 5 female attendants to 229 male and 149 female patients, or 1 attendant to 29 patients. (In England the proportion of attendants to patients is about 1 to 10.)

"2. For this population of 378 patients there is no resident physician. (In England a house licensed for 100 patients or more must have a resident medical officer.)

"3. The Superintendent of the Cork District Asylum is held by the Lunacy Inspectors and the Lord Lieutenant responsible for the administration of the Youghal Asylum and for the proper treatment of the patients therein contained, but by a regulation of the Committee of Management he is not allowed to visit the Youghal Asylum nor to see the patients therein.

"This regulation, made by the Committee of Management of the Cork District Asylum, has been pronounced by the Inspectors of Lunatics, and admitted by the Chief Secretary to the Lord Lieutenant, to be illegal.

"This Association expresses its astonishment and profound regret that treatment of the insane so retrograde and objectionable in character should be possible, and trusts that steps will be taken at once by the proper authorities to enforce the law and terminate so deplorable a mode of treatment of insane persons." That was the resolution which he had the honour to bring before the Association.

Dr. BOWER seconded the resolution.

Dr. DAWSON (Dublin) said he did not very much to add to the resolution. Dr. Mercier had given the facts substantially, but he, Dr. Dawson, would read a statement which the Bishop of Cloyne had made at a meeting of the Cork Asylum

Committee, of which he was a member. "His lordship was quite prepared at any time to recognise the medical superintendent in his proper position. No patient could enter there unless admitted after an examination by the medical superintendent. That was an important function, and his lordship was willing he should retain it. Again, if a patient were to be removed from Youghal Asylum, that should be done only in the judgment of the medical superintendent. These two functions exhausted entirely the duties of the medical superintendent in regard to the auxiliary asylum." That showed the position which Dr. Woods was in. The present Chief Secretary for Ireland, replying to a question by Captain Donelan and Mr. Sloan the other day in the House, said "the consent of the Lord Lieutenant to the appointment of a visiting medical officer had only been given as a tentative measure, which would be open to reconsideration if the arrangement should prove defective, and as to the second [point], the committee had been informed that the resolutions were illegal, and had been called upon to correct the illegality." That was the state of affairs at present. There were not yet quite 400 in the asylum, but it had been gradually filling up. There were 229 males and 149 females in the asylum on May 15th. It had been suggested by the Bishop of Ross that it would probably hold 450 before it was done with.

Dr. BEDFORD PIERCE asked what class of patients they were.

Dr. DAWSON replied that the auxiliary asylum was intended to take the patients who were in workhouses, but they had to pass through the Cork District Asylum and be certified by Dr. Woods as being harmless before they were sent down there.

Dr. MERCIER, by the request of the President, re-read the resolution, and it was carried unanimously.

The PRESIDENT said he supposed it was intended to send the resolution to the Chief Secretary for Ireland.

Dr. MERCIER said he was going to propose, as a subsidiary resolution, that the resolution just passed be sent to the Chief Secretary to the Lord Lieutenant. He did so.

A MEMBER seconded it, and it was carried.

Dr. W. MAULE SMITH read a paper entitled "The Use of Hypnotic Drugs in the Treatment of Insomnia" (see page 561).

Mr. G. T. HINE, F.R.I.B.A., exhibited the plans and gave a description of the asylum now being erected for the County of London at Long Grove, near Epsom. This was much appreciated by the meeting, and in the interesting discussion which followed, in which Drs. Macdonald, Hayes Newington, Powell, Bond, and Robert Jones took part, numerous complimentary references were made to Mr. Hine's work. Dr. Mercier's and Dr. Robert Jones' papers were unavoidably postponed.

The members dined together in the evening at the Café Monico.

The following members were present at the Council Meeting which was held on the same day:—Dr. R. Percy Smith, President, in the chair; Drs. David Bower, Arthur N. Boycott, Lewis C. Bruce, Maurice Craig, William R. Dawson, Charles K. Hitchcock, Robert Jones, Richard J. Legge, Henry C. MacBryan, Peter W. Macdonald, Chas. Mercier, Alfred Miller, H. Hayes Newington, Bedford Pierce, Frederic R. P. Taylor, Ernest W. White, T. Outterson Wood.

Letters of apology were read from Drs. Geo. Braine-Hartnell and M. J. Nolan.

SOUTH-EASTERN DIVISION.

The SPRING MEETING of the South-Eastern Division was held, by the courtesy of Dr. Thomson, at the Norfolk County Asylum, on Thursday, April 27th, 1905.

The following members were present:—Drs. Bower, Chambers, Fielding, Higginson, Hunter, A. S. Newington, Rawes, Thomson, and White.

Letters expressing regret at their inability to attend the meeting had been received from Dr. Percy Smith (the President) and from many other members of the Division.

The asylum and grounds were inspected, and after luncheon a meeting of the Divisional Committee was held.

There was not a quorum of members present at the General Meeting, which had been summoned for 2.45 p.m.

Dr. Thomson presided, and read a paper entitled, "A Short Account of the Norfolk County Asylum during the past Ninety Years."

A cordial vote of thanks was accorded to Dr. Thomson for his very interesting contribution, and for having so hospitably received the Division.

A SPECIAL MEETING of the South-Eastern Division was held at 11, Chandos Street, Cavendish Square, W., on Tuesday, May 16th, 1905, owing to their not having been a quorum present at the spring meeting held at Norwich.

The members present were—Dr. Percy Smith (President) in the chair; Drs. J. Bayley, J. Chambers, T. O. Wood, R. H. Steen, F. H. Edwards, H. Corner, R. Stillwell, R. Langdon Down, P. Langdon Down, W. Hunter, C. H. Bond, A. S. Newington, C. M. Tuke, and A. N. Boycott (Hon. Sec.).

The minutes of the meeting held at Roehampton on October 6th, 1904, having appeared in the JOURNAL, were taken as read and confirmed.

The report of the meeting held at Norwich on April 27th, 1905, was read.

The following members were elected by voting papers to hold office for 1905-6:—Hon. Secretary to the Division: Dr. R. H. Steen. Four Representatives on the Council: Drs. David Bower, D. G. Thomson, E. W. White, and John Turner.

A vote of thanks to Dr. Boycott for having acted as Hon. Secretary to the Division for the last five years was proposed by the President, and unanimously carried.

The following gentlemen were elected ordinary members of the Association:

Mervyn Thomas Archdall, L.S.A.(Lond.), L.R.C.P. & S.(Edin.), L.F.P.S.(Glas.), Resident Licensee of Bishopstone House, Bedford. Proposed by Drs. J. Bayley, R. Percy Smith, and J. T. Hingston.

Bernard Hart, M.B.(Lond.), M.R.C.S.(Eng.), L.R.C.P.(Lond.), Assist. Medical Officer, Herts County Asylum, Hill End, St. Albans. Proposed by Drs. Boycott, Grimmond Smith, and F. H. Evans.

Richard Whittington, M.A., M.D., B.Ch.(Oxon.), M.R.C.S.(Eng.), L.R.C.P.(Lond.), 1, Silwood Place, Brighton. Proposed by Drs. Neil, Haynes, and Boycott.

Drs. Boycott, Kennedy Will, and G. N. O. Slater were elected as members of the South-Eastern Division Committee of Management, which now consists of the following members:

Retire in 1906.

Dr. Bayley.

Dr. Harding.

Dr. R. Stilwell.

Retire in 1907.

Dr. Hunter.

Dr. Rawes.

Dr. Lord.

Retire in 1908.

Dr. Boycott.

Dr. Kennedy Will.

Dr. G. N. O. Slater.

The following resolution proposed by Dr. Chambers, and seconded by Dr. Hunter, was carried:—"That in view of the discussion which was held at the adjourned Annual Meeting on the tables, which are placed on the agenda for consideration to-day, this meeting does not make any recommendation."

The invitation of Dr. Langdon Down to hold the Autumn Meeting of the Division at Normansfield, Hampton Wick, on Wednesday, October 18th, 1905, was unanimously accepted with much pleasure.

The date of the next Spring Meeting was fixed for Wednesday, April 25th, 1906.

SOUTH-WESTERN DIVISION.

A meeting of the South-Western Division was held at Herrison, Dorchester, on Tuesday, April 11th.

The President, Dr. Percy Smith, was in the chair.

The minutes of last meeting were read and signed, and the following candidates were elected members of the Association:—George Henderson, M.A., M.B., Ch.B.; Robert G. Allen, L.R.C.P.I., L.R.C.S.I.; Marie H. Watson, L.R.C.P.&S.Ed., etc.; E. J. Cummins, L.R.C.P.&S.Ed., etc.

Dr. Aveline was elected Hon. Sec., and Dr. Braine-Hartnell and Dr. MacDonald were elected representative members of Council.

Dr. R. S. Stewart and Dr. MacDonald were elected members of the Committee of Management.

Friday, October 27th, was fixed as the date of the Autumn Meeting, and Friday, April 27th, was named as the date of the Spring Meeting for 1906.

On the motion of Dr. AVELINE it was agreed to hold the Autumn Meeting at University College, Bristol.

Dr. WEATHERLY read a paper entitled "The Natural Characteristics and Temperament of our patients, and how far they Help and Handicap us in our Treatment" (see page 539).

In the subsequent discussion, which was taken part in by the President, Dr. Miller, Dr. Aveline, Dr. Goodall, and the Hon. Sec., several of the speakers urged the importance of obtaining full and correct histories of our patients, and showed how information thus obtained helped us in our treatment of difficult cases. At a later stage of the discussion, Dr. MacDonald drew attention to a class of case whose temperament was that of vicious vindictiveness, and he frankly stated that he believed the swing of the pendulum against restraint had gone too far and advocated the use of carefully supervised restraint in such cases in preference to the medicinal methods now in vogue. The President and others expressed their hearty agreement.

Dr. Weatherly was heartily thanked for his able contribution on an interesting subject.

Dr. RORIE read a paper on "The Insanities of Decadence" (see page 576).

The PRESIDENT thanked Dr. Rorie for his paper, but thought the age limit was somewhat low, though he was well aware how strongly opinions differed as to the dividing line. Dr. Goodall strongly urged Dr. Rorie to take up what was an important and interesting subject from a pathological standpoint. The Hon. Sec. offered a few remarks, and pointed out how difficult it was to fix the age limit from experience gained at Dorchester where there was such a large number of early and confirmed mental decays.

The members dined afterwards at the King's Arms Hotel, Dorchester.

NORTHERN AND MIDLAND DIVISION.

The Spring Meeting of the Northern and Midland Division was held at the Retreat, York, on May 4th, at the invitation of Dr. Bedford Pierce.

Dr. T. W. McDowall presided.

There were present Drs. Archdale, Adair, R. Baker, Eurich, Ewan, Geddes, Gramshaw, Grove, Hutchinson, Hearder, Johnstone, Norah Kemp, T. W. McDowall, Mackenzie, Middlemass, Menzies, May, Nixon, Pierce, Pietersen, Rigden, Stewart, Sutcliffe, Tighe, Trevelyan; also three visitors.

1. The minutes of last meeting were read and confirmed.

2. The following were elected members of the Association:—William Edward Stevenson, M.B., B.S., Assistant Medical Officer, West Riding Asylum, Menston; Henry G. Drake-Brockman, M.R.C.S., L.R.C.P., Assistant Medical Officer, County Borough Asylum, Middlesborough.

3. Dr. Bedford Pierce was re-elected Secretary of the Division.

4. Dr. Hitchcock, Dr. Legge, and Dr. Edgerley were elected representative members of Council.

5. The next meeting was fixed for October 12th, 1905, at Kesteven County Asylum, Sleaford, and the Spring Meeting, at the Derby Borough Asylum, for April 19th, 1906.

6. It was resolved to take no further action in respect to the resolution passed at the last meeting with reference to the classification of insanity.

7. Dr. H. J. Mackenzie read interesting notes of a case in which it appeared that a definite attack of melancholia followed neurasthenia. After a long course of forcible feeding the patient gained weight, and eventually recovered.

8. Dr. Norah Kemp read an account of a female patient who had bi-monthly attacks of acute mania. The attacks were associated with the menstrual periods, and were accompanied by a decided increase of leucocytes in the blood.

In the intervals between the attacks the patient was quite clear in mind.

9. Dr. Bedford Pierce discussed the treatment of atonic dilatation of the stomach,

and quoted two cases in which marked benefit followed the continuous application of hot-water bottles to the abdomen.

10. Dr. Thos. Johnstone read a paper on "Dementia Præcox."

In the discussion which followed Drs. Pierce, Middlemass, and Eurich took part, and Dr. Johnstone replied.

11. Dr. Menzies read a paper entitled "Some Points connected with Tuberculosis in Asylums" (see page 548).

Drs. Trevelyan, Pierce, Stewart, Eurich took part in the discussion which followed, and Dr. Menzies replied.

After the meeting members dined at the Royal Station Hotel, and a party next day went an excursion to Ripon and Fountains Abbey.

IRISH DIVISION.

The Spring Meeting of the Division was held at the Stewart Institution, Palmerstown, Dublin, by the kind invitation of Dr. Rainsford, on Tuesday, May 9th.

Before the meeting the visitors were taken round the institution, and saw the patients at work in the school, some of the cases being demonstrated. Dr. Rainsford then entertained the members at luncheon.

The chair at the meeting was taken by Dr. Rainsford, and there were also present Drs. C. Norman, M. J. Nolan, C. E. Hetherington, R. R. Leeper, T. Drapes, H. M. Eustace, R. A. L. Graham, J. Mills, and W. R. Dawson (Hon. Sec.). Letters regretting inability to attend were received from the President of the Association and Dr. Molony.

The minutes of the previous meeting having been read, confirmed, and signed, the Hon. Secretary reported shortly with reference to the instructions which he had received at that meeting.

J. Cotter, L.R.C.P.E., L.R.C.S.E., L.F.P.S.Glas., Senior Assistant Medical Officer, Down District Asylum, Downpatrick (proposed by Drs. M. J. Nolan, C. Norman, and W. R. Dawson), was unanimously elected an ordinary member.

Dr. W. R. Dawson was re-elected Divisional Secretary for the ensuing year, and Messrs. M. J. Nolan and T. Drapes were elected Representative Members of Council. Dr. R. A. L. Graham was recommended to the Education Committee as Examiner.

It was decided to request the President to sanction the alteration of the date of the summer meeting of the Division from July 5th to July 6th, and to ask Dr. Harvey to allow the meeting to be held at Clonmel Asylum. Failing this, the arrangement of the place of meeting was left to the divisional Hon. Secretary.

No further recommendations with reference to the Statistical Tables were made, but the Hon. Secretary was directed to call the attention of the Statistical Committee to such of the previous recommendations of the division as had not apparently been dealt with.

A resolution with reference to the election of a President-elect, in consequence of the late Sir J. Sibbald's resignation, having been passed, Dr. Nolan proposed, and Dr. Eustace seconded the following, which was unanimously adopted:—"The members of the Irish Division are of opinion that it would be to the advantage of the Association that the Annual Meeting should be changed from July to an earlier month, say May."

The following resolution was passed unanimously on the proposal of Dr. Nolan, seconded by Dr. Mills:—"That the members of this division desire to express their sympathy with Dr. O'Neill in his recent sad bereavement."

COMMUNICATIONS.

1. Dr. F. E. RAINSFORD then read the following "Note on the Stewart Institution."

Gentlemen,—The Stewart Institution, which for the first time is honoured by your visit, has but a short and comparatively uneventful history. Its existence is due to the want long felt in Ireland for some institution into which imbeciles

capable of improvement might be admitted, and in which efforts to develop any latent mental powers existent might be tried.

The Census return of 1861 stated that the large number of 7033 idiots existed in Ireland, being in a proportion of 1 to 825 of her population. Of this large number no less than 5675 were 'at large,' 934 were in the workhouse, 403 were housed in various county asylums, and 21 were in prison.

Feeling that this state of things was a disgrace, the late Dr. Geo. Hugh Kidd, of Dublin, aided by a number of leading gentlemen, took steps for having this great want supplied, and, after public meetings were held, a Committee was appointed to obtain subscriptions. It was considered that less than £20,000 would be inadequate to found a suitable institution and to maintain it efficiently, but the Committee were able to collect little more than a third of this sum, and the fulfilment of the project seemed for a time very doubtful.

At this juncture of affairs the late Dr. Stewart came forward and secured a donation of £4000, payable at his death, besides making over his interest in a well-established private asylum at Lucan, the profits arising from which were to help to maintain and carry on the imbecile institution.

This offer was, needless to say, accepted by the Committee, and they were soon able to enter on the work.

Owing to this the Institution not merely got its present name, but acquired what I may describe as its double-barrelled character, viz. an institution for the training and education of imbeciles, and a hospital for the reception of patients mentally affected. The profits of the latter department are devoted to the upkeep of the imbecile institution.

The Committee, after accepting this offer, acquired premises in Lucan in close proximity to Dr. Stewart's asylum. They were fitted up to accommodate thirty-five cases, and in July, 1869, the institution now known as the Stewart Institution was opened with twelve recently-elected cases.

At the outset the Committee was fortunate in securing the services of the late Dr. Pim to superintend their new institution. It is not for me to dwell on the value of Dr. Pim's work here. I can only say that it was characterised by judgment, keen administrative power, and marked ability, and for almost thirty years he devoted all his time, talents, and abilities to the welfare of his patients. The Institution which to-day you have visited is indeed a monument of his work, and of him truly may it be said 'Si quaeris monumentum circumspice.'

After carrying on the Institution at Lucan for some years under great difficulties owing to unsuitability of premises, the Committee became the purchasers of Palmerston House and grounds.

The adaptation of these premises demanded an outlay of a considerable sum of money, and for the time being only two thirds of the accommodation designed was completed. In 1879 the institution removed from Lucan to its new quarters.

The demands for admission continuing to increase, as soon as sufficient funds were collected to warrant the step, the Committee lost no time in setting to work to complete the building, but funds were hard to get, and many years elapsed before the complete building as you see it to-day was in full swing.

Great credit is due to the devotion and keen business ability shown by the Managing Committee, assisted by the able Secretary, Mr. O'Neill, who for over thirty years has, with liberality tempered by prudence, managed its finances, and now to-day we are in the proud position of being able to say that we have the entire building in full work and practically free from debt.

Since it was first opened 466 imbecile children have been admitted. Of this number 129 died in the Institution, 234 were discharged, and we have to-day 103 inmates remaining in the Institution.

Of those discharged a large percentage were so dealt with, their term of election having expired, or they were considered unsuitable, but a fair proportion were removed so much improved that they were in a position to earn a livelihood, or else to be so useful in their home that their presence was desirable. One, after a stay here of eighteen years, was promoted to be an attendant, and has for four years discharged his duties with great efficiency.

As may be imagined in a building so far removed from the city one of the great difficulties which the Managing Committee had to face was that of providing a good

water supply. For some years here the only water supply was derived from the river or from some underground tanks erected by Lord Donoughmore, supplemented by some spring water which frequently failed. Negotiations were entered into with the Waterworks Committee of the Corporation, and after considerable trouble and expense, we were provided with a special main, which runs from the Varray main at Island Bridge. The height at which the building is placed renders a supply during the day so uncertain that we have to rely on a night supply into tanks, situated just under the roof of the building, for all our drinking and cooking water.

As, however, in case of fire, this supply would be useless owing to want of pressure, we have recently completed an underground tank capable of containing 36,000 gallons of water fed from the main. By the aid of a small Tangye steam pump we are able to utilise this supply for the purpose of assisting the normal supply by night, or when this fails, of filling all our Varray tanks in a short time.

We have, in addition, about 40,000 gallons of surface water stored in three underground tanks erected by Lord Donoughmore, available in case of fire, or capable of being pumped by the steam pump through the building to supplement the supply usually obtained from the river, and which is used for working the lifts and for flushing the closets.

We have our own gas main direct from Dublin, and so are usually well lighted.

The industrial side of our work is naturally limited by our numbers.

Bearing in mind that we have only fifty-seven male inmates, of whom about thirty are practically unable to do anything, it will readily be seen that the number available for any specialised manual instruction is very limited, when the multifarious duties connected with the cleaning of a large institution with a limited staff have been discharged. We are, however, able to get a good many fibre mats made during the year, some tweed woven, and a good deal of small repairs in the tailoring and carpentering departments done.

Nearly the entire upkeep of the grounds around the institution, exclusive of the farm, is done by the boys, while the girls do a good deal of work in the laundry and kitchen, in addition to knitting, sewing, and darning. It would, of course, be very pleasant to be able to show well-arranged workshops in various trades, presided over by skilled artisans, and supplied by boys learning their respective trades; the cost would, however, be far beyond our resources, and we have to rest content with trying to get the inmates to do some sort of work, however small and insignificant, believing that all work has its value as mental exercise, and that to teach any one of them to do anything, say to polish a brass tap, is to have done something towards his mental betterment.

2. Dr. R. A. L. GRAHAM then contributed an account of a "Case of General Paralysis, complicated with Syphilitic Meningo-myelitis," which was illustrated with microscopic preparations, photo-micrographs, and lantern slides. It will appear in a later number of the JOURNAL.

3. Dr. T. DRAPES read a paper on a "Case of Brain Tumour," illustrated with naked-eye and microscopic preparations. It also will be published later.

4. Dr. Nolan showed naked-eye specimens from four cases of pathological hearts of various kinds in insane patients.

I. *Ruptured Heart and Chronic Melancholia.*

Notes.—M. F—, a "flowerer," æt. 81 at time of death,—May 4th, 1904—was admitted to Downpatrick Asylum on December 9th, 1871. Well-marked family history of hereditary tendency to insanity.

For many years patient suffered from melancholia of a mild emotional type with paroxysmal acute fears of being murdered. There was nothing very remarkable in her habits beyond the fact that she was an inveterate chewer of paper, and she insisted that it was absolutely necessary for her to "chaw" in order "to prevent the blood pumping out through her mouth from its source inside her stomach." She indulged in reminiscences of paternal perfection and pride of home, which gave rise to a whimpering emotionalism resulting in copious tears for her long departed parent. She was noted as a great eater.

On May 4th, 1904, she made a good tea, after which she went to the lavatory, returned thence to her seat in the day-room, and immediately expired.

Post-mortem examination.—Thickening of all cranial bones, atheroma of cerebral vessels, and atrophy of grey matter. Other organs, with exception of cystic kidneys,

healthy. Aorta very atheromatous. Pericardium distended with sero-sanguineous fluid, and recent blood-clots. Heart covered and infiltrated with an excess of fat—a rupture a quarter of an inch in length in centre of left ventricle.

II. *Dissecting Aneurysm of Aorta and Hallucinatory Melancholia.*

S. N.—, house-keeper, æt. 70 at date of death—January 29th, 1904,—was admitted to Downpatrick Asylum on August 17th, 1898, suffering from acute melancholia with refusal of food. She was much disturbed by disagreeable gustatory and auditory hallucinations, and was, at alternating intervals, acutely excited and depressed. Later she became more uniformly silent, rarely speaking except in monosyllables. She was also disinclined to active exercise, preferring to sit knitting or sewing.

On January 29th, 1904, she suddenly became very pale, and complained of great pain about region of her heart. This was at 3 o'clock p.m. Her pulse failed rapidly, and she finally sank at 6.15 o'clock, three hours and a quarter after onset of acute pain.

Post-mortem examination.—All organs except heart apparently healthy. No macroscopical lesion of brain.

In the heart the mitral valve was thickened and shortened; the left ventricle much hypertrophied. Very extensive atheroma of the whole length of the aorta, with numerous nodules and ulcerated patches. At the junction of the ascending part of the arch of the aorta, with the loop of the arch, there was a large rupture of the intima and media, through which the blood passed and travelled down between the media and outer coat, and so formed a *cul-de-sac*, which extended low down as the cœliac axis. This pouch was filled with laminated clots. Followed towards the heart the blood dissected the intima and media from the outer coat of the loop of the arch, and from the ascending limb to its root where the external coat ruptured into the pericardium, which contained some sixteen ounces of partly coagulated blood. The heart was laden and infiltrated with fat.

III. *Patency of Foramen Ovale, and Paroxysmal Mania.*

J. Mc—, æt. 59, admitted to Downpatrick Asylum, January 2nd, 1905, and died February 26th, following.

Patient was suffering from partial paraplegia of four years' duration. He was unable to pass water. The immediate cause of his committal was an assault on his wife because of her refusal to pass a catheter for him. He had a loud blowing diastolic murmur in the aortic area—this murmur was conducted towards the apex. His lungs were œdematous. On February 23rd, 1905, he had a syncopal attack from which he never fully rallied. He sank on the morning of February 26th.

Post-mortem examination.—Marked grey atrophy of frontal lobes. Spinal column the seat of tubercular disease in lumbar region, in which situation it had exercised pressure on the cord, which it flattened for a considerable length. The heart was much hypertrophied, the mitral valve thickened. A very patulous condition of the foramen ovale was also evident.

IV. *Cardiac Hypoplasia with Patulous Foramen Ovale and Congenital Mental Deficiency.*

T. T—, æt. 8 years 9 months; admitted June 10th, 1903.

The child suffered from congenital mental deficiency without epilepsy. Generally quiet and silent; at times he gave way to fits of unprovoked violence—biting, spitting, kicking, and snorting. His speech was imperfect, and there was wasting and loss of power in all his limbs. At intervals he tried to beat his head with his hands. His habits were dirty. He suffered from otitis media, and later developed tabes mesenterica. The abdomen became enlarged and tympanitic; he had diarrhœa with thin offensive stools streaked with bright red blood at times. There was little fever, but extreme wasting and debility.

Post-mortem examination.—Brain anæmic; convolutions large, regular, and flat; no macroscopic lesion. Lungs emphysematous. Intestines attenuated; no marked tuberculous lesions. A circular ulcer with sloughing base and hard, raised, everted edges one inch in length was found about one and a half inches from anus.

Heart very small, pale, and flabby, showing general hypoplasia. The foramen ovale was very patent, suggestive rather of a deficiency of substance than of mere want of approximation of the edges.

Dr. NORMAN thought the first case particularly interesting, and considered that the rupture was probably due to atheroma of the coronary artery, one branch of which was as hard as bone, and was probably blocked further on. In his own practice he had seen two cases of rupture of the heart, and one in which the heart was greatly thinned owing to occlusion of the coronary artery.

A hearty vote of thanks to Dr. Rainsford for his kind hospitality was then passed on the proposal of Dr. DRAPES, seconded by Dr. NORMAN, and Dr. RAINSFORD having responded the proceedings terminated.

DOWN DISTRICT ASYLUM.

PRESENTATION TO DR. NOLAN.

The Committee of Management of Down District Lunatic Asylum, after the transaction of the business of the monthly meeting in April last, paid a signal compliment to Dr. M. J. Nolan, the esteemed Resident Medical Superintendent.

The members of the present Committee, elected three years ago, in conjunction with the members of the Committee for 1899—1902, to mark their appreciation of the efficient manner in which Dr. Nolan has conducted the asylum since his appointment to the position of Resident Medical Superintendent close on twelve years ago, made him the recipient of a congratulatory address and gold watch, and Mrs. Nolan an autograph silver salver. On the watch were inscribed, outside the case, crest, motto, "Justa Sequor," and monogram; inside, "Presented to Dr. M. J. Nolan, R.M.S., Down District Asylum, by the Committee of Management, 1899—1905." On the salver, below the crest, etc., was inscribed, "Presented to Dr. and Mrs. Nolan by the Committees of Management, Down District Asylum, 1899—1905, as a token of their esteem."

The Chairman said that they were no doubt all aware that it had been arranged to make some acknowledgment to Dr. Nolan of the great zeal and capacity which he had shown in conducting the affairs of the asylum during the time the Committee had been in office. Colonel Sharman-Crawford and Mr. Russell had been deputed to carry out the idea, and he now requested the former gentleman to read the apologies, and Mr. Russell to read the address. He might, perhaps, be permitted to say that, as the oldest member of the Committee, he could testify to the steady improvement which had been carried out in almost every department of the asylum since Dr. Nolan became Medical Superintendent.

Mr. Andrews, speaking in the name of the Committee, said that, having had the privilege of acting as treasurer for the presentation, he wished to say that he had never been associated with any object or acted as treasurer in any case in which contributions were sent in so cheerfully and so pleasantly as in this case. Each member who wrote expressed the general indebtedness to Dr. Nolan, and the great pleasure that the donor had in forwarding his contribution.

The Chairman having made the presentation, Dr. Nolan assured the Committee how much he was touched by their great kindness—kindness so unexpected, so unanimous, so spontaneous, that it was a reward such as he could not think he deserved.—*The Down Recorder*, April 22nd, 1905.

OBITUARY.

SIR JOHN SIBBALD, M.D., F.R.C.P.Edin.

By the death of Sir John Sibbald, President Elect of the Medico-Psychological Association, ex-Commissioner in Lunacy for Scotland, psychiatric medicine has lost one of its foremost and wisest exponents.

In the end of 1904 an affection of his throat appeared, which quickly assumed a serious character, and permitted no hope of ultimate recovery. He faced the issue

with the calm courage of a good man, and the end came mercifully soon. He died from heart failure on April 20th at the age of seventy-two. To the last he retained unabated interest in the speciality to which his life had been given, and was doing consultation work two months before his death.

Sir John was the son of a banker, was born and educated in Edinburgh, and was a graduate of its University. After increasing his experience by hospital residence and a short period of private practice, he began asylum work under Dr. Skae at the Royal Edinburgh Asylum, where he was for several years an Assistant Physician; the late Dr. McCullough, of the Abergavenny Asylum, the late Dr. Young, Professor of Natural History in Glasgow University, Dr. Yellowlees, and Dr. Clouston were among his colleagues there. The work was most congenial to him, alike in its practical and its scientific aspects, and was admirably performed.

In 1862 he was appointed Medical Superintendent of the Argyllshire Asylum at Lochgilphead, which he organised and opened, and of which he was a most efficient head. He was the first to show—the remote position of the asylum greatly favouring the experiment—that it was possible to dispense with airing courts in a county asylum. Only those who knew the dismal, walled courts of that period, so unlike the pleasant gardens of to-day, can understand how great an advance was thus originated.

In 1870 Dr. Sibbald was appointed Deputy Commissioner in Lunacy for Scotland. The duties of that office include the visitation of patients in private dwellings, and he became, after much practical knowledge of its working and its results, an earnest supporter of the "boarding out" system as practised in Scotland.

In 1878, on the death of Sir James Coxe, Dr. Sibbald was appointed Commissioner in Lunacy, and for twenty-one years did solid and admirable work for the insane in Scotland, and earnestly furthered whatever could promote their welfare. His mind was eminently judicial, and he was distinguished by calm and sound judgment, and wise and wide views of every subject. His opinions, once formed, were firmly held and ably defended. He often silenced an eager advocate of change by a single question, showing considerations which had been overlooked or consequences which had been forgotten. His wise and well-considered opinions had always great weight in the counsels of the Commission.

Visits to Gheel and Alt Scherbitz convinced him of the great value of the cottage system of asylum construction, and the county asylums of Aberdeen and Midlothian are monuments of his influence.

Sir John's intercourse with others, whether professional colleagues or friends of patients, was marked by kind and courteous consideration, and his relations with the asylum superintendents were always those which are happily traditional in Scotland. He was no mere inspector, but an honoured friend, who could see and censure faults, but could also see and appreciate merits, who understood the difficulties of asylum work, and was always ready with sympathy and counsel.

In private life Sir John was a genial cultured gentleman, with many intellectual interests, a singularly open mind, strong common-sense, great toleration for others, the highest moral tone, a warm heart, and a happy gift of humour.

On his retiral from office in 1899, by reason of the age limit, he received the honour of knighthood in recognition of his public services, and was presented by his friends and colleagues with his portrait, painted by Sir George Reid, President of the Royal Scottish Academy. The portrait has been admirably reproduced for this JOURNAL, of which Dr. Sibbald was at one time joint editor.

DR. HENRY PUTNAM STEARNS.

We regret to record the death, at the age of seventy-seven, of Dr. Henry Putnam Stearns, an Honorary Member of the Association, which occurred on May 27th, 1905.

He was for over thirty-one years Physician and Superintendent of the Retreat for the Insane at Hartford, Conn., U.S.A., which office he resigned only two months before his death. He was held in the highest regard both personally and professionally in Hartford, and throughout the speciality in America. Dr. Stearns was one of the pioneers in America of the humane treatment of the insane, and the Hartford Retreat became widely known as one of the best institutions in the country. As a specialist and an author Dr. Stearns was in high repute, and he was a Past President of the American Medico-Psychological Association.

Before adopting this specialty, Dr. Stearns was in large private practice in Hartford, but his patriotism compelled him to volunteer for medical service in the Civil War, and he did splendid work throughout it. It is recorded of him that when Medical Director of the Northern Wing of the Army of the Tennessee he converted all the public buildings in the city of Nashville into hospitals for the troops, equipped them suitably, and with the aid of 100 surgeons and 20 clerks, had an average of 10,000 sick and wounded men under his care. At the close of the war he declined a permanent Government appointment which was offered to him, and retired with the rank of Lieutenant-Colonel. He resumed his practice in Hartford with great success, and on the death of Dr. John S. Butler, was appointed Physician and Superintendent of the Retreat, the duties of which post he discharged admirably for the long period of thirty-one years.

Personally Dr. Stearns was a man of the highest stamp; kind, genial, courteous, high principled, and wise, his friendship was greatly valued by all who enjoyed it. He studied for a year at Edinburgh University, and repeatedly visited this country, where Sir John Sibbald (whose death this JOURNAL also records), Drs. Hack Tuke, Clouston, Urquhart, and Yellowlees were among his friends.

NOTICES BY THE REGISTRAR.

EXAMINATION FOR THE NURSING CERTIFICATE.

Eight hundred and seventy-four candidates applied for admission to the May examination. The following were successful:

Robbin Island.—Males: George Search, William James Benham.

Glamorgan.—Males: Caleb Hiley Bryant, David Davies, John Henry Jones, Samuel William Lloyd, Alick Percy Moore, Robert Summers, Leonard Wilden, Richard Gooding, Edwin Griffiths, Henry Percy Williams, John Calvin Llewellyn, Thomas Owen, Herbert Yeoman. Females: Mary Ellen Tornsey, Ethel Agnes Brown, Margaret Ann David, Edith Maria Printall, Maude Ellen Holley.

Monmouthshire.—Females: Hannah Jane Llewellyn, Gertrude Alice Short, Eva Stephens Ray.

Aberdeen Royal.—Females: Louisa Finlayson, Agnes Yool Brodie, Anne Isabella McLeod, Ethel Adam, Mary Colman, Kathleen Elizabeth Brockie.

Ayr District.—Males: John Carley, William Ross. Females: Margaret McLean, Annie Barrie, Susan Hopkins, Jane Benton, Jane Clark, Jane Taylor.

Crichton Royal.—Males: Alexander Finnie, Alfred Sutton, Roderick Mackenzie, Alexander Brown. Females: Margaret Young, Annie MacIntyre.

Dundee District.—Male: Stewart Methven. Female: Margaret Isabella Anderson.

Edinburgh Royal (Craig House).—Males: William McConnachie, Peter Phillips, William Henry Montgomery McEvoy, Robert James Soper. Females: Jemima Corsie, Elizabeth Margaret Denham, Elizabeth G. MacColm, Mary Sinclair, Mary Rhydero Woodman, Isabella Nicol, Margaret Catherine Ross, Constance Ball, Brinda Traill Skae, Bridget McCabe.

Edinburgh Royal (Morningside).—Males: Thomas Barclay, Douglas Cameron.

Fife and Kinross District.—Males: Henry Hannah, Thomas Melrose, James Neville. Females: Jeannie Comfort, Bessie B. Hutchison, Beatrice Redpath.

Gartloch.—Male: James Lawson Simpson. Females: Jean Wyper Macfarlane, Nellie Crombie, Jeannie Watt Reynolds, Marjory Pratt Tait, Ellen Jane Robertson, Margaret Laurie, Flora Bella Pollock, Mary Jane Gow.

Gartnavel.—Males: Joseph Cruickshank, Robert William Davidson, William Stein. Females: Annie Barclay, Christina Dickson, Mary McLean, Elizabeth Guthrie Currie, Christina McLeod, Mary King, Christina Maccullum, Kathleen Elizabeth Sayer.

Glasgow District, Woodilee.—Males: James Ewan, Samuel Deering, William Kilpatrick. Females: Margaret Ann Gordon Cochrane, Jeannie C. Sinclair, Flora Whyte, Agnes Brownlee Taylor, Agnes Tait, Joanna Anderson Fairley, Edith Mussett, Isabella MacLean, Elsie Barnett Paterson.

Govan District.—Males: James McPherson.

Inverness District.—Females: Jessie Alexander Douglas, Anetta C. MacIntyre, Rose Polson, Helen Rutherford Macdonald.

Lanark District.—Males: Walter Stewart Lapham, John McNab, Donald McPherson. Females: Annie Allen Kinloch, Minnie Dick Kirkcaldy, Jeannie Neil Fulton, Matilda Edgar.

Midlothian and Peebles.—Males: William Carruthers, Peter MacLean, David McHardy, Robert MacLean. Females: Martha McCahan, Helen Florence, Lena Macdonald, Jean Richmond Keay.

Montrose Royal.—Males: Walter Anderson. Females: Lizzie Stephen, Louisa Buchan, Isabella Lindsay.

James Murray's Royal.—Females: Mary Audrey Blanche, Margaret Balfour Doig, Margaret Davida Buchanan, Susan Mary Jane Nimmo, Lizzie Ann Pirie.

Perth District.—Females: Minnie McKerron Grant, Agnes Ramsay Raeside.

Stirling District.—Females: Rachel Mary Shier, Georgina Willis, Helen Watt, Agnes Buchanan Morrison, Elizabeth Anne Thompson, Mary I. E. Satchwell.

Amagh District.—Female: Ellie Somerville.

Ballinasloe District.—Females: Maria Spellman, Mary Moran, Annie Ward, Bridget Briscoe.

Belfast District.—Males: Thomas Hull, Henry Mullin, Henry Burns. Females: Josephine Robinson, Mary Seymour, Jane Chapman, Mary Hall, Lena Reilly, Jane Stokes, Mary Glenny, Mary Duffy, Mary Gray.

Cork District.—Males: Michael Farrell, John Holly. Females: Hannah Sullivan, Ellie Geary, Nora Cahalan, Kate O'Keife, Annie Twomey, Margaret Hurley.

Enniscorthy.—Male: Michael Kavannah.

Limerick District.—Females: Margaret Enright, Winifred O'Brien.

Londonderry.—Males: John Torrens, William Logan.

Omagh.—Male: Hugh McEnhill.

Richmond District.—Male: Maurice Scannell. Females: Elizabeth Dolan, Margaret Erina Young, Mary Kenna.

Richmond District, Portrane.—Male: Michael Smyth. Females: Martha McKinley, Rose Crosbie.

Waterford District.—Males: Martin Daniel, Michael Dowling.

St. Patrick's Hospital.—Male: Michael Conway. Female: Isabella Kelly.

Camberwell House.—Male: Robert Bray Milton.

Holloway Sanatorium.—Males: William Victor Bowman, Frederick James Costello, Samuel Stinton, Thomas Samuel Pritchard, Walter Jennings, Frank Stockford, William Charles Clark, George Arnald. Females: Elizabeth Reynolds, Ellis Mary Looker.

Northumberland House.—Male: Louis Melville Keenan.

Retreat, York.—Females: Gladys Rose Kaye, Jessica Tindle, Margaret Helen Carter, Alice Mabel Piggott.

St. Luke's Hospital, E.C.—Female: Bertha Annie Hampson.

Claybury, ex at.—Male: Michael William Lawton (private nurse).

Wilts County, ex at.—Male: Thomas Smithwick (private nurse).

Warneford, Oxford.—Male: William Henry Bird.

Birmingham City, W. Green.—Female: Lizzie Dally.

Birmingham City, R. Hill.—Males: Henry Samuel Percy Cutts, William Edward Watkins.

Bristol City.—Male: Frederick George Moss. Female: Millicent Burley.

Canterbury Borough.—Males: Alfred Shrimpton, George Cobden.

Caterham.—Males: Alfred Edward James, Robert Stothert, George Cope. Female: Julia Fanny Lane.

Derby Borough.—Male: Thomas John Heath. Female: Julia Glynn.

Exeter City.—Male: Joseph Edward Tinley. Female: Emily Amelia White.

Hull City.—Male: Frederick William Jacob.

Leavesden.—Male: Arthur Golding. Females: Louisa Ewers, Agnes Sophie E. Dann, Florence Mary Scroope.

City of London, Dartford.—Males: George Dike Puttock, Alfred Joseph Taylor. Females: Jean Millicent Lindsay, Louisa Jane Connolly, Frances Elizabeth Oswell.

Newcastle City.—Males: Ted Smith, James Paterson. Females: Winifred McNulty.

Notts City.—Males: Francis Wilfrid Lee, William Maurice Newman, Frederick Hamilton Macdonald. Females: Isabella Scott, Gertrude Harris.

Plymouth Borough.—Male: William Richard Bray Fry.

Sunderland Borough.—Males: Stephen Ridley Dowbiggin, Frederick Robert Bateman.

West Ham Borough.—Males: Joseph Craggs, Thomas Fleming, Alexander Kerr, George Hall, Alfred James Hillier, William John Doughty. Females: Nellie Elizabeth Cooling, Lizzie Grace, Osbert Friend.

Bucks County.—Male: John Edward Field. Females: Alice Rhoda Washington, Rose Annie E. Oakley, Annie Ellen Jones, Minnie Maria Welford.

Cumberland and Westmoreland.—Female: Christina Lancaster.

Derby County.—Males: Joseph Keen, William Archer. Females: Helena Sophia Barker.

Devon County.—Females: Rose Narramore, Mabel Cann, Ethel Robinson, Hettie Harris.

Durham County.—Females: Louisa Kate Denman, Lillie Robson.

Essex County.—Males: Joseph Francis Clarke, Henry Dowse Potterton. Females: Elizabeth Jane Cook, Honor Amelia Fish, Eva Bartrum Mortimer.

Kent County, Chartham.—Male: James O'Brien.

Lancaster County, Lancaster.—Males: Ernest Vernon, Henry Wadsworth. Females: Annie Sargent, Caroline Troughton, Rachel Purdy, Jeannie Maitland, Elizabeth Palmer, Alice Sandham.

Middlesex County.—Female: Elizabeth Ann Broad.

Norfolk County.—Males: George Edward St. Leger, Herbert Smith Frost, John Herbert Bidwell. Female: Frances Hobbs.

Northumberland.—Males: Arthur Armstrong, James McAllister, John Garvil. Females: Sarah Annie Knott, Henrietta Carss.

Salop County.—Males: Leonard Williams, John Thomas Ratcliffe, Davis Griffiths. Females: Sarah Ann Williams, Emily Louisa Meredith, Alice Hurdley, Mary Ratcliffe.

Suffolk County, Melton.—Males: Denis F. O'Shea, Thomas Talman, William James Rought. Females: Florence Norman, Rose Crane, Kate O'Brien.

Surrey County, Brookwood.—Males: Arthur Brodrigg, George Edmund Cox, George Ernest Dickenson, George Cornelius Knight, John Charles Woodnutt. Females: Evelyn Austin, Annie Scadden, Kate Mitchener, Ethel Maude Walker.

East Sussex, Hellingly.—Males: Herbert Jeffries, George Noakes, George Henry Harman, Norman Barber, William Henry Waters, Charles B. Ingmire. Females: Harriet Edith E. Wells, Rebecca Lepine, Elizabeth Fletcher, Alice Jane Turner, Kate Ellenor Willerton.

West Sussex.—Males: Moses Mitchell, David Garnett. Females: Marion Drew, Sarah Charman, Netta Louisa Ward, Ethel Trevett Daniels, Blanche Mary Maynard, Drusilla Elizabeth Hammond.

Warwick County.—Males: Thomas William Miles, Thomas William Florence. Females: Kathleen Walshe, Amy Harrison, Mary Whitmore.

Wilts County.—Males: James Archard. Females: Georgina Reeve, Mary Annie Lines, Annie Vasey, Florence Emilie White.

Yorks, North Riding.—Males: Charles Horspool, Donald Edward Hugill. Females: Kathleen Briggs, Edith Ameer Green, Mary Rippon, Alice Harrowsmith.

York, Wadsley.—Males: Charles Sandison, Walter Heath, Harry Chatfield, George King, James Keyworth, John A. Middleton, Walter Stanley, John Thomas Tacey, Joseph Lonsdale. Females: Elizabeth Mettam, Louisa Mary Wood, Ethel Mary Jones, Bertha Barnes, Gertrude Green, Elsie Anne Hasler, Annie Humpage, Sarah Booth, Mabel Plews.

York, Menstone.—Males: William L'Amie, John E. Schofield, Henry Cottrell, William Jackson, Walter Jones, William Williams, William Frederick Courtney. Females: Edith Annie Longbottom, Nellie Shepherd, Margaret Livesey, Edith Smith, Alice Smith, Fanny M. Smith, Edith Ormond, Lily Mabel Haw.

York, Wakefield.—Males: Stephen Greener, Charles Edwin Collinge, John Brunskill, Joseph Thomas. Females: Emilie Lister, Annie Mary Howden.

London County, Banstead.—Males: Dan Berry, George Priest, William Henry Paxton, John Price, Henry Thomas Harding, Thomas William Candler, Alfred Haydn Price, Frank William Perry, Edgar William Slater, Robert John Portsmouth,

Sidney Cloughton, William Mark Day. Females: Adelaide K. Green, Allison E. Hogg, Florence E. Edwards, Elizabeth Simms, Emma L. Jones, Emily Burridge, Kezia Kemp.

London County, Bexley.—Males: William Naylor, Stephen Thomas N. Parker, Sidney Webb, William Albert Parsons, Frederick James Clarke, Tom May Rose, Samuel Henry Green, Edgar Samson, Edwin Seymour Vallance, George Henry Everest. Females: Blanche Amy Morgan, Sophie Isabel Willis, Adelaide Bird, Alice Coomber, Alice Ada Tytheridge, Louisa Preston Walsh, Margaret Bridgens, Sarah Sparks, Fanny Smith, Edith Woodward, Beatrice M. Ponter, Maude Edith Briggs.

London County, Cane Hill.—Males: Alexander Grey, Andrew Montgomery, James Joseph Cooke. Females: Elizabeth Scally, Kate Sydney, Harriett Fanny Soffe, Agnes Mary Andrews, Eleanor May Izard.

London County, Claybury.—Males: Edward William Owen, Edmund O'Keefe, Walter Smith, Alfred Slade, Edmund George Johnson. Females: Fannie Ingram, Edith Mary Almond, Emily Mina Artus, Emily Pavey, Kate Owen, Kate Willens, Jane Ferguson Davis.

London County, Epsom.—Females: Lilian Mary Hazelwood, Bertha Dray.

London County, Hanwell.—Females: Ethel Jackman, Maud Frances Symons.

The following is a list of the questions which appeared on the paper:

1. What is meant by the circulation of the blood? Describe briefly its mechanism, and trace its course in the human body, beginning and ending at the left auricle.
2. Give an account of any case of insanity, which has been recently under your care, describing the mental and bodily symptoms as they appeared during the progress of the illness.
3. What is the cause of fainting? What is the difference between a "fainting fit" and an "epileptic fit"? How would you treat a patient who had fainted?
4. What is a delusion? What kind of delusion would lead you to suppose that a patient was inclined to (a) suicide; (b) violence?
5. What is the proper temperature of the water for an ordinary cleansing bath? What rules are to be observed in bathing insane persons?
6. Describe a case of hallucination that you have witnessed.
7. Draw a temperature chart for one week, and mark upon it the morning and evening temperature of a case of pneumonia for the first three days.
8. A patient has fallen (out of doors) and sustained a compound fracture of the leg. What first aid would you render, and how would you move the patient to bed?
9. What symptoms would lead you to suspect retention of urine?
10. Describe minutely how you would prepare and apply a turpentine stupe to the right side of the chest, in the case of a patient with a high temperature.

EXAMINATION FOR NURSING CERTIFICATE.

The next examination will be held on Monday, November 6th, 1905, and candidates are earnestly requested to send in their applications, duly filled in, to the Registrar of the Association not later than Monday, October 9th, 1905, as this will be the last day upon which, under the rules, applications for examination can be received.

EXAMINATION FOR THE PROFESSIONAL CERTIFICATE.

The examination for the Certificate in Psychological Medicine will be held as advertised in the *British Medical Journal* and the *Lancet*, at Bethlem Hospital, London; Royal Asylum, Aberdeen; District Asylum, Downpatrick, on July 14th, 1905, at 10 a.m.

GASKELL PRIZE.

The examination for the Gaskell Prize will be held at Bethlem Hospital, London, on July 15th, 1905, at 10 a.m.

Candidates for this examination must give fourteen days' notice to the Registrar of their intention to present themselves.

NOTICES OF MEETINGS.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

The adjourned Annual Meeting for the further consideration of the Tables and Report by the Statistics Committee has been fixed for 10.30 a.m. on Wednesday, July 19th, 1905, at 11, Chandos Street, Cavendish Square, under the Presidency of Dr. R. Percy Smith.

The Sixty-fourth Annual Meeting of the Association will be held on Thursday and Friday, July 20th and 21st, 1905, at the Rooms of the Association, 11, Chandos Street, Cavendish Square, London, W., under the Presidency of Dr. T. Outterson Wood. There will be meetings of Committees as follows on Tuesday, July 18th:—Educational Committee at 4 p.m., and on Wednesday, July 19th, the Parliamentary Committee at 5 p.m. The Council will meet at 9.30 a.m. on Thursday, July 20th.

The Annual Meeting will commence at 11 a.m. on Thursday, the 20th of July, when the usual business of the Association will be transacted.

2 p.m.—The President's Address, after which G. M. ROBERTSON, M.D., Medical Superintendent of the Stirling District Asylum, Larbert, N.B., will introduce for discussion the question of "The Employment of Female Nurses in the care of Insane Men," and several members have promised to take part in the discussion.

Friday, July 21st, at 10 a.m. (in view of the introduction of two Lunacy Bills before Parliament).—The question of the treatment of insanity and the proper accommodation to be provided, especially for early mental disorders, will be brought forward for discussion. Dr. HELEN BOYLE, late Medical Officer in the London County Asylum, Claybury, now of Brighton, will read a paper upon "Some points in the Early Treatment of Mental and Nervous Cases, with special reference to the Poor." Dr. MILSON RHODES, Member of the Lancashire Asylums' Committee, and Member of the Committee which reported upon Continental Asylums, will read a paper upon "The Provision of Suitable Accommodation for the Various Forms of Insanity." Dr. ALAN McDUGALL will read a paper upon "The David Lewis Colony for Epileptics, Alderley Edge," of which he is the Resident Medical Officer.

2 p.m.—The question of phthisis in asylums will be brought up for discussion, and Dr. GEORGE GREENE, M.A., M.B. Cantab., Medical Officer, Claybury Asylum, will read "Notes upon the Incidence of Tuberculosis in Asylums, a Comparative Study."

The following papers are also promised:—Dr. MERCIER, "Some Definitions." Dr. ROBERT JONES, "Some Remarks in regard to Urine Testing."

The Annual Dinner will take place on Thursday, July 20th, at the Whitehall Rooms, Hôtel Metropole, at 7.30 p.m. Tickets One Guinea (wines included).

Members are requested to notify their intention of dining to the General Secretary.

South-Eastern Division.—The Autumn Meeting will be held, by the courtesy of Dr. Langdon Down, at Normansfield, Hampton Wick, on Wednesday, October 18th, 1905.

South-Western Division.—The Autumn Meeting will be held at University College on Friday, October 27th, 1905.

Northern and Midland Division.—The Autumn Meeting will be held, by the courtesy of Dr. Ewan, at Kesteven County Asylum on Thursday, October 12th, 1905.

APPOINTMENTS.

Gow, W. B., M.D., M.S., Medical Superintendent, Christchurch Lunatic Asylum, New Zealand.

Jones, O. Wynn, M.R.C.S., L.R.C.P., Assistant Medical Officer, Derby Borough Asylum.

THE JOURNAL OF MENTAL SCIENCE

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Part I.—Original Articles.

*Medico-Psychological Association of Great Britain and
Ireland: Presidential Address, delivered July 20th,
1905.* By T. OUTTERSON WOOD, M.D., Senior Physician,
West End Hospital for Nervous Diseases, Welbeck Street, W.

GENTLEMEN,—In the first place permit me to express my high appreciation of the honour you conferred upon me by electing me your President, when the office of President-Elect was rendered vacant by the resignation of Sir John Sibbald, whose death we now deplore. Let me assure you that nothing shall be wanting on my part to advance the welfare and prosperity of our Association, and to safeguard its interests to the best of my ability.

With regard to its progress, we are in a position to congratulate ourselves upon its continued success. We are steadily increasing in numbers, our finances are in a sound condition, and we are accumulating a substantial reserve fund.

To show the advance we have made within the last few years, let us compare our position to-day with what it was five and twenty years ago. In the year 1880 we had 394 members as compared with 680 to-day. In 1880 our income from subscriptions was £353 6s.; now our accounts show that during the last financial year our income from that source alone has

been no less than £681 9s. In 1880 our invested capital was £205 in 3 *per cents.*; to-day it amounts to close upon £500, exclusive of other amounts we possess which are invested for special purposes, such as the Hack Tuke Memorial, Dr. Paul's bequest, and other funds.

These facts and figures, which are so gratifying, are well worth remembering; for, as "nothing succeeds like success," the knowledge of our enhanced position should continue to attract to us all that is of the best among our professional brethren who are joining the asylum service of the country from year to year.

There can be no doubt that the formation of the subdivisions of England has added greatly to our success. The pioneers in this excellent movement were the members of the South-Western Division, who, under the able and active direction of their Secretary, Dr. MacDonald, have succeeded in banding the members of that district together and in steadily increasing their numbers.

The Northern and Midland Division, and the South-Eastern Division, by following their good example, are also displaying considerable vitality and aiding in keeping the members of outlying districts in touch with the work of the Association. As each division is now represented on the Council by elected representative members, its views can be laid direct before the Central Board by chosen delegates.

In fact, the reorganisation largely brought about by the promulgation of the new bye-laws has already, in this and in other respects, shown excellent results and promises well for successful administration in the future.

Owing to the steady increase in our numbers our list of members requires the expenditure of a considerable amount of time and trouble to keep it correct, so that it becomes a question as to whether it would not be well to appoint some one specially to attend to it. When, as frequently used to happen, the question of selecting names for official positions on the Executive came up for discussion, we were at a loss to find out quickly the position our members held in the Association as regards seniority. I therefore, some years ago, undertook the task of revising the list and worked out as far as I could the date at which members joined, etc. It took some time and a good deal of correspondence then, and it would be a pity not to have the

list kept well up to date. The constant changes in the addresses alone are important to have correct, and I believe errors are gradually creeping in which if allowed to accumulate will make it a heavy undertaking to rectify in the future.

The work of the Association has increased enormously during the last few years, and this business of keeping a correct register of our members, with their official positions and addresses, is only one among many other details which such an organisation as ours must keep well in hand, so that the time seems to have arrived when the question of employing a paid secretary to relieve our honorary officers of a great weight of detail and drudgery might with advantage be considered.

Before that can be done, however, there is a much more pressing want which for some time past has been forcing itself upon our attention, and I think we are all agreed that the present room which represents the headquarters of our Association in London is quite inadequate and unworthy of us. Those of us who have had to spend some hours there doing gratuitous work for the Association have every reason to complain of the smallness of the breathing space, the dinginess of the surroundings, and the general discomfort. So much was the Council impressed with this, that a committee was appointed to go into the matter, and it is to be hoped that this committee will be able to lay before us, ere long, some practicable scheme whereby we shall be able to find a local habitation and an address, adequate to our ever increasing requirements. Especially is this to be desired with regard to our library, which goes on increasing year by year, and which has already outgrown the accommodation available for it.

In this direction also there appears to be scope for the services of a paid secretary who could combine with his other duties that of librarian, under the immediate direction of the Library Committee.

Again, we pay yearly a large sum of money for the publishing of our Journal ; and I am given to understand that it would not be beyond the bounds of good and successful management to further utilise the time of a paid secretary to aid us in becoming our own publishers, and if this could be done we should be able to save a fairly good sum annually, which would become available for paying part of his salary. There is another, and to my mind a most important, direction in which a paid secretary

could do available work, *viz.*, in attending our general meetings and correctly reporting our proceedings, for as these reports largely form the archives of our Association, it is of the greatest necessity that they should be accurate and reliable for future reference. I do not think it is right or reasonable that the general secretary, who has more than enough to do to look after the general business of the meetings, should also be expected to report the details of discussions and other matters ; in fact, it is impossible for him to do it, and the appointment of a paid secretary to discharge these various duties would add to efficiency and economy.

During the last year some interesting and important subjects have been brought prominently before us.

The Absence on Trial Question,

for instance, caused no small amount of discussion amongst us owing to the action taken by the Commissioners in stating that it was illegal to bring a patient back to the institution, from which he was granted leave of absence, before the expiration of the time mentioned in the leave. The Parliamentary Committee had the matter referred to it, and, thanks to its labours, the question has been settled by the Commissioners obtaining a later and better opinion to the effect that a patient *can* legally be brought back at any time, so that our reading of the Act, upon which we had considered it right to work for so long, is confirmed.

The Dispensing of Dangerous Drugs

is a subject of the greatest interest to those of us who are engaged in private practice. In a letter to the medical press I recently ventured to call attention to the grave responsibility resting upon medical men in prescribing powerful drugs, and to the ease with which patients could obtain them in unlimited quantities by simply taking a prescription from one chemist to another. In the case to which I then called attention the patient had in this way obtained upwards of 1800 grains of hydrochlorate of cocaine in a 20 *per cent.* solution for the purpose of committing suicide. Some considerable correspondence in the medical papers followed, and I am glad to say the British Medical Association is moving in the matter ;

but so far as regards the ease with which suicidal patients can obtain poisons, the evil goes on unchecked, for quite lately a patient in a "convalescent home" is reported in the morning papers to have written to the stores and obtained four ounces of pure chloroform, which she drank off and put an end to her existence.

Incipient Insanity.

The question of lunacy legislation continues to be very much *en evidence*, and calls for special notice, particularly as regards the legalising of the early treatment of cases of incipient insanity by their removal from home into private care for profit, which is forbidden by the law as it now stands. At the Annual Meeting of the British Medical Association as far back as 1896 Dr. Henry Rayner read a valuable paper, entitled "The Certification of Insanity in its Relation to the Medical Profession," in which he demonstrated the disabilities of early treatment. In the discussion which followed I then said, "it should be possible for a patient whose insanity is doubtful to be placed under care and treatment (away from home) on the application of a relative (such application to be accompanied by a written medical opinion) to a magistrate for a judicial order empowering the detention of the patient for a specified time." After some further discussion, a resolution was unanimously passed recommending the Council of the British Medical Association to move in the matter. It did so act, and in conjunction with this Association a joint committee was appointed, which laid the matter before the Lord Chancellor, who, to meet our views, inserted a clause into his proposed Bill. That Bill was withdrawn, but a similar clause appears in the Attorney-General's Bill which is now before the legislature. We may therefore hope, if it becomes law, that we shall at last obtain what we so long have been working for. But this is by no means all that is requisite. It is a well-known fact that all sorts of men and women are continually advertising in the lay and medical press and pestering us with applications for the care of insane patients—persons who know nothing about the care and treatment such cases require, and apparently do not care to know, but who are generally on the look out for some means of augmenting their income. It often happens that the friends gladly avail themselves of such persons to get rid of a

troublesome burden, and the patient is handed over to the advertiser with the too frequent result that a scandal arises or a suicide puts an end to his sufferings, and a coroner's inquest follows. Of this we had a forcible example a short while ago in the case of the Christian Scientists, who received a patient from an asylum with the above lamentable result.

Again, incipient mental cases have been called "*nervous*," "*hysterical*," or "*neurasthenic*," and on the advice of some "expert" have been placed in "medical homes" and Weir-Mitchelled, rubbed, and galvanised, and otherwise "*treated*" with the view of "curing their nerves." The effect of such treatment, however, is very naturally unsatisfactory, for the mental disorder continues to develop, and in the end, after the loss of most valuable time, inimical to recovery, the patient has to be certified and placed under proper control, notwithstanding the large sum spent for the expenses of the medical home, which are enormous, and which have drained the resources of his friends. One such case quoted in a paper I read upon this subject at a general meeting of the Association at Derby, in 1903, was said to be suffering from "hysteria," but had to be certified immediately after. This patient was brought to me recently suffering from a recurrent attack, from which she is at present recovering in an asylum.

To remedy this unsatisfactory state of things it would be well if some scheme could be adopted for the registration of places and persons taking mental cases. Especially is this so with regard to the so-called nursing homes, which abound, and which are, in many instances, kept going by the detention therein of cases of doubtful and even plainly certifiable insanity. In my opinion, the state registration of nurses should follow the registration of the persons who employ them in these homes if we wish in a satisfactory manner to legalise the early treatment of cases therein. This would, however, necessarily entail a considerable extension of the present means of official supervision. We could not expect our overworked Board of Commissioners as at present constituted to undertake any additional labour of this kind. The Board of Lunacy is manifestly understaffed, as Sir John Batty Tuke very plainly showed when he brought the matter before the House of Commons, and nothing short of a substantial addition

to its number would enable it satisfactorily to grapple with the enormous addition to its work such extension would entail. If the law is to be made "more elastic" it can only be made so by largely increasing the number of the Medical Commissioners in Lunacy in order to provide for the greater supervision such elasticity will necessitate, for we already have reason to complain of the inadequacy of supervision the Commissioners are able to exercise. In the paper read at Derby, in February, 1903, above alluded to, I advanced the following opinion :

"The point upon which the whole (of this) question hangs is that of adequate supervision. It is a very simple one. The Commissioners in Lunacy have all the facts in their possession. There is no need for any Commission of inquiry about the Lunacy Laws ; we know quite enough about them already. The appointment of Deputy Commissioners who should be local expert representatives of the Board in large centres of the population will, in my opinion, meet every requirement."

These Deputy Commissioners would be more likely to have some personal knowledge of the places and of the people receiving incipient cases, and could take a better, because a more independent, position in exercising the necessary supervision and control to prevent abuses.

Voluntary Boarders in Public Asylums.

We find in the case of registered hospitals and licensed houses that persons with incipient insanity can be induced to place themselves under treatment by obtaining admission into institutions as voluntary boarders, and it is reasonable to propose that this privilege may be legally extended so as to apply to the public asylums receiving paying patients. That which is good for the well-to-do cannot be bad for the poor, and as county asylums are now permitted to take private patients and provide the necessary accommodation for them at reasonable rates, they might also be empowered to take voluntary boarders. At any rate, the question is well worth consideration at the hands of our colleagues, the medical superintendents of county and borough asylums. If greater elasticity is required in encouraging the early treatment of incipient insanity, surely here

is a field for extension in this direction. Very many cases have come under my personal care in the hospital out-patient department, in which admission as voluntary boarders into our public asylums might have been the means of curing the patients and have thus saved their relatives many a pound by their rapid recovery under early voluntary treatment, instead of their being allowed to drift owing to the impossibility of obtaining for them the early institutional treatment their condition required, and of which they would willingly have availed themselves.

The Public Trustees and Executors Bill.

It frequently happens that we are consulted about the mental condition of a patient whose only relatives may be aged parents or some distant connection, and we are asked to advise as to the steps to be taken in order that the property of the patient (not necessarily a lunatic) may be made secure. The Bill now before Parliament is for the purpose of creating "the Office of Public Trustee," and it provides that the Lord Chancellor with the concurrence of the Treasury is to appoint one. This will be a boon to the public because of the great difficulty which exists in inducing competent persons, other than solicitors, to act, and the difficulty is growing. The weak-minded folk about whom we are consulted are often friendless and inexperienced in business matters, and this makes them the ready prey of all sorts of sharks, as we very well know. To such people the Public Trustee would be of the greatest value, and in many instances he would be the means of obviating the necessity for taking proceedings before a Master in Lunacy which, in certain cases and for various reasons, is not desirable.

Nursing.

This is another matter which has been brought prominently before us during the past year, and there are several points in connection with it which will well bear further consideration. In July, 1897, I published a paper in the *Journal of Mental Science* entitled "The Asylum Trained and Certificated Nurses of the Medico-Psychological Association." That paper was intended to be a reply to aspersions cast upon our nurses by certain persons who were then ignorant of the system of training and the examinations we had instituted. In the paper

appears the following paragraph referring to the success that had attended our nursing system: "We find we are face to face with an unequivocal success, and by the force of circumstances we are compelled to act up to the responsibility of the position in which we stand, *viz.*, that of being one of the most important, if not the most important of the nursing authorities of this kingdom, an authority with which the nursing community will have to reckon, and which it is our duty to uphold." When that was written we had only 2,500 nurses' names upon our register; now the number of nurses, male and female, who hold our certificate for proficiency in nursing is no less than 6,900. This body of trained and certificated nurses is, I believe, the largest number of any known in the nursing world who hold certificates of uniform value from one constituted authority, and whatever is done in the way of legislation with regard to the State registration of nurses or otherwise, it must be our duty to strive energetically to safeguard the interests of these nurses, male and female, and we, as their representatives, can make our intervention on their behalf of some avail with such a weight of numbers as we have behind us.

We took a strong step in the right direction at our last annual meeting when we definitely fixed the period of training for our certificate at three years, for by so doing we freed our nurses from the taunt of being inadequately trained, as compared with hospital-trained nurses. This extension of time will give our nurses a status they never had before, and will greatly strengthen our hands in advocating their claims for inclusion in any scheme of State registration. That this is an urgent matter we are well aware, for in the Bills introduced into Parliament our asylum-trained nurses are ignored, and no representation is given on their proposed Councils to our Association. Unless these serious defects are removed in committee, the passing of such a Bill will be a fatal barrier to our nurses acquiring that position to which they are so fully entitled. Much will depend upon the result of the special Committee now considering these Bills and taking evidence from various sources in connection with them. There is another point which I might mention here, and it is one which calls for immediate remedy. It is the custom of calling our male nurses "attendants." This is decidedly a weak point in

our system, for the name is as much out of place as the names "warder" or "keeper" of bygone days. Its retention tends to lower the position of our male nurses, and I would venture to suggest that men who enter our institutions for the care and treatment of the insane, on completing their three years' training, and taking the certificate of our Association, should be given the name of "*nurse*," which they have justly earned. No good purpose can be served by retaining the name "attendant" for our qualified nurses, and I must confess when I recently saw an advertisement in the medical papers announcing the date of the next examination "for the certificate in nursing and attending the insane," I thought the inclusion of the words "and attending" superfluous, and that they did not tend to raise the tone of our certificate which is given "for proficiency in nursing."

Some of our members have advocated the principle of substituting female nurses in lieu of males for male patients. Doubtless a certain proportion of male cases of physical illness in hospitals or hospital wards may be suitable to be nursed by females, but the proportion cannot be very large, and among acute mental cases it is bound to be small. On the other hand we must be careful in carrying out this idea, excellent enough as far as it goes, that we do not damage the cause of our male nurses by pushing it too far and thus producing in their minds a feeling of irritation which will not be good for the patients, for the institutions, or for the nurses themselves, or which may lead them to become careless about that part of their calling which is so important—the nursing in its highest sense of the chronic as well as the acute forms of insanity, the docile as well as the dangerous. We must not forget that competent male nurses are as much an absolute necessity in asylum life as they undoubtedly are in private practice. We cannot do without them, and an important point to recollect is that there is no other institution in the kingdom which trains and qualifies men for the position of nurses as we do, and this is an additional reason why we should be careful not to belittle their capabilities and qualifications. It has been my good fortune to come across some excellent male nurses, and I am inclined to think they are very much what we ourselves make them. To quote from an exceptionally able and temperate letter written by a matron in the *Asylum News* for March last: "A kind heart, common

sense, devotion to duty, loyalty to proper authority, these are not the sole prerogatives of women, and the man who, possessed of them, is also a well-trained mental nurse, can nurse insane men as well as, and with greater propriety than, any woman."

We must further remember that we are the qualifying body for these nurses, male as well as female, and it is an essential part of our duty to do what we possibly can to keep up the standard of our qualification by careful teaching and strict examination, and to improve the position they hold in relation to nurses of other institutions. The hospital-trained nurses obtain their certificates from a large number of different sources, and there is nothing to guarantee the uniformity of their training or the standard of their examinations, neither are all the institutions which grant them their certificates of equal standing. Their certificates cannot, therefore, favourably compare in this respect with that of a well-organised system such as ours is, ramifying as it does all over the kingdom and colonies, and dependencies of the Crown, with one uniform system of training and one standard of examination under the supervision of our Association. Doubtless faults may be found here and there with our methods, for no system is perfect, but what defects there may be, can be but of minor importance. Everything must have a beginning, and as time goes on and any flaws in detail come to light they can be easily remedied. At any rate it cannot be denied that we have done excellent work, and there is no reason why our system should not continue to prosper in the future as it has done in the past, if we keep moving with the times, and our examiners see that a fair standard is maintained. The possession of our certificate in private work is of the greatest value, and at once procures an assured position and the higher rate of payment of three guineas per week for mental cases. This to some nurses is doubtless a great attraction, and tends to draw them away from the asylums. As, however, the supply meets the demand this will diminish in the course of time.

There is another point worth noting, and it is this: we often hear it said that hospital training should count in the training for our certificate, but what constitutes hospital training? It is a very uncertain and variable quantity, for among hospitals generally there is a great want of uniformity. For instance, a nurse who has *served* three or four years in a hospital is said to

have had that length of training, though she may not have attended lectures or passed an examination, and yet these nurses with their three years' *service* have been registered as trained. It is only recently that systematised courses of lectures have been introduced into many hospitals, and yet these hospitals will not recognise our training, which in many respects is better than their own. Neither will they give our nurses credit for the one, two, or even three years' training they may have had under our system. They must go through the whole of their training again to obtain their hospital certificate qualifying them for registration as hospital trained. So in our case the hospital training may be of value as regards the, strictly speaking, sick nursing of the sane, but to obtain our certificate for proficiency in nursing the insane, nurses must be trained under our system ; they are of but little use to us without it. Hospitals are quite averse of taking nurses from other hospitals, let alone asylums, as many of our members are of taking nurses from other asylums, so that, unless some definite understanding can be come to between individual hospitals and asylums whereby an interchange of nurses may be agreed upon, the difficulties which now exist to what would be an excellent arrangement will not readily be overcome.

Again, of all those 6,900 nurses whose certificates we have registered, of how many can we say that we personally know them to be proficient in nursing, not merely technically, but personally qualified, which means that they are possessed of those individual characteristics which go so far towards making a really good and efficient nurse. But the same applies to the nurses of the Royal British Nurses' Association. Possibly many of you may not be aware that in founding that excellent Association, there was a period of grace, during which those already engaged in nursing were admitted to registration under special conditions, that is, without having passed an examination or attended courses of lectures. The present period of training for hospital nurses, the establishment of lectures, the size of hospital recognised by the Association, and the general requirements of the Board of Registration are all developments of the Association which have followed since its foundation, and have brought it up to its present position of strength and usefulness. I think therefore we have every reason to be satisfied with the results which so far have followed the registration of our nurses'

certificates, but we are like the Royal British Nurses' Association when it started, in that we have passed through the early stage of our existence as the qualifying body for asylum-trained nurses.

Some excellent authorities rightly maintain that all the technical knowledge in the world cannot make a nurse, for nurses are born, not made, and we gladly acknowledge how true that is, but no one can deny that given two "born nurses," one of whom shall be in the possession of our certificate, the one with our training is the one upon whom we should rely in an emergency. Where we, as the qualifying body, are wanting is in the fact that we merely register the certificates and not the persons who possess them as the Royal British Nurses do, and the remedy for this weak spot in our system seems to me to be to follow the example of the Royal British Nurses' Association and organise a Registration Board of our own as soon as possible. Having served for some years upon the Registration Board, the Executive Committee, and being now on the General Council of the Royal British Nurses' Association, I am fully acquainted with its procedure, and know that no nurse's name is passed by the Registration Board without every inquiry having been made at the institutions (and there was no limit to them—she may have been trained in a dozen for that matter) not only as to her training, but also as to her personal character and individual fitness for the work. If, therefore, we are prepared to take yet one more step towards bringing our nurses into line with the members of the Royal British Nurses' Association and the Midwives' Board, so as to enable us to advocate their claims on equal terms with the two latter, we must establish a Registration Board and make it compulsory for each of our nurses to pass it. Then we shall be able to say of our own knowledge we can guarantee them to be thoroughly trained and personally competent. It is true that up to last July our nurses obtained our certificate on a two years' training, but a very considerable number of these have served their three years and over, and they could therefore come before the Registration Board and qualify as fully trained, together with those now under training who will have to serve their three years according to our new arrangement. Thus they will all compare favourably with the nurses of the other associations, and no opposition to their inclusion in any scheme of State registration can be raised

against them. Here, again, in the foundation of this Registration Board, we would find work for our paid secretary, which would take up a considerable amount of his time, and relieve our Registrar of much clerical detail. In the event of the Association taking a favourable view of the suggestion to have a Registration Board it would be necessary to refer the question to a committee to consider it in all its bearings, and if found to be feasible, to work out the details and report generally as to its advisability. Of one thing we may be certain, that no satisfactory plan for consolidating our position and placing ourselves in the way of doing the best for our nurses and adding to our reputation as their qualifying body, can be properly carried out without one. I repeat and desire to emphasise the fact that there are at present only three organised qualifying bodies for nurses in the field with regard to State registration, *viz.*, the Royal British Nurses' Association, the Midwives' Board, and our own Association, and that the only objection that can be raised against our nurses being included in the proposed legislation is that they have not passed a Registration Board as the others have done. There is one more point in this connection which we must consider, and it is this: that by our constitution, as we hold our meetings all over the kingdom, it might occasion some difficulty if we have only one Central Registration Board. This, however, could readily be overcome by grouping our training institutions according to the divisions of the Association in which they are situated and having Divisional Registration Boards in touch with the Central Board. This would give even a better guarantee than does the Royal British Nurses' system for that personal knowledge of the competency of our nurses which is so desirable. That we must move with the times is certain. To stop would be fatal. We have begun, and so far satisfactorily carried on, this work, and, seeing the strong position we now hold as the representative qualifying body for mental nurses, feeling as we do the right they have to be treated on equality with others, we need have little fear of procuring for them the State registration they deserve, should it be granted to the others, and should we so desire it. Personally, I am not yet quite sure that all the stir now being made about State registration will be of much material benefit to the nurses themselves, and as to whether this perking them up with a glistening pride may not end in

their wearing a crown of sorrow, and not tend to their ultimate advantage, but what seems very evident is, that if other nurses are to be placed under Parliamentary protection, there is no reason why ours should be left out and looked askance at, and in the eyes of the public made to appear outside the pale of official recognition.

It is somewhat instructive to consider the manner in which this question of State registration of nurses was brought so prominently before the public. It came about somewhat in this way. The Royal British Nurses' Association having applied for a Royal Charter, found itself opposed by some of its own members, who, failing to block the granting of the charter, got up a Bill for the State registration of nurses. The effect of this move was to imperil the Royal British Nurses' Association by undermining its system of registration, which is undeniably good. The Royal British Nurses' Association in self-defence was compelled to promote a Bill of its own, so that the House of Commons found itself faced by two Bills, both being supported, but on different grounds. Hence the appointment of a Select Committee to inquire into the necessity for doing what the Royal British Nurses' Association was already doing so well, and what we have been doing for years for our asylum-trained nurses. All the argument about the protection of the public is only used for the purpose of advancing the merits of one Bill and its supporters against the other. The public with regard to the employment of nurses is well protected by the members of the medical profession, who take good care to employ such nurses as are properly trained, of good character, and well recommended. One of the results of this dual Bill-promoting business was the alacrity with which the promoters turned to us for support ; and we found those who had referred to our nurses and our training (about which they were lamentably ignorant) in terms which were simply outrageous, craving for our support for their Bill. It is to be hoped that our Association will be careful not to identify itself with any such, but steadily, and independently, will persevere in the determination to have justice done to our nurses, and to obtain for them a recognised position in the nursing world to which we claim they are entitled. Whatever may be the outcome of the movement in regard to the State registration of nurses I doubt if any scheme can improve upon the excellent system of

the Royal British Nurses' Association under the Presidency of Her Royal Highness the Princess Christian. I feel that our Association is largely indebted to Her Royal Highness for the interest she has also taken, on more than one occasion, in the status of our asylum-trained nurses, and I know personally how fully Her Royal Highness appreciates their work. If State registration should become an accomplished fact, I trust the Royal British Nurses' Association will be authorised to register hospital-trained, and our Association, asylum-trained nurses.

In the very limited time at our disposal I have endeavoured to mention a few of the practical points in connection with our work as an Association. It is an Association which is increasing year by year in strength and usefulness, and which is branching out in many directions, bringing us more and more into touch with the public and with the members of our profession generally. Psychological medicine is now more intimately associated with general medicine than formerly, and I trust it will continue to be our object to strengthen the bonds which are uniting us, and which will ere long bring us into one harmonious whole.

Dr. YELLOWLEES : Mr. President, I am very glad, Sir, that my voice is the first to address you by your new title. The duty has been assigned to me—and it is a pleasure as well as a duty—to propose a very earnest vote of thanks to you for the admirable address to which we have listened. Our presidential addresses have been either strictly scientific, or, as yours has been to-day, directly referring to our administrative work and eminently practical. I am quite sure that in all you have said this afternoon you have carried your audience with you, and you have earned our special thanks which I beg now heartily to move. (Applause.)

Dr. ERNEST WHITE : Mr. President, allow me as one of your very oldest friends to congratulate you on your excellent address. It is just the type of address that we expected from you, and we feel sure that your guidance of the affairs of the Association during your year of office will be equally practical. I have very much pleasure in seconding this vote of thanks.

Carried by acclamation.

THE PRESIDENT : I am very much obliged to you indeed for your vote of thanks to me for what I have endeavoured to make a practical address upon matters with which we have to deal in carrying out the work of our Association.

Amentia and Dementia: a Clinico-Pathological Study.

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HIGH-GRADE AMENTIA.

GROUP III.

RECURRENT CASES.

	Males.	Females.	Total.
(<i>a</i>) Relapsing	6	13	19
(<i>b</i>) Now chronic	11	17	28
	—	—	—
Total	17	30	47

THIS group includes recurrent cases of insanity or cases subject to relapses from an apparently normal mental condition to one of mental alienation. The patients differ from those of the previous group in that during their lucid intervals they pass as normal sane individuals. They are, however, liable to become so far out of accord with an environment which would have little or no influence on normal individuals, that attacks of temporary mental alienation develop at regular or irregular intervals. In other words, the mental equilibrium of these patients is so unstable that it becomes upset by the various influences which constitute the normal "stress" to which the several members of a civilised community are necessarily subject. Though the cases in this group grade in-

sensibly into and, during their attacks, exhibit a mental symptomatology similar to that of those included in Group II, classes (a) and (b), the fact that they are sane during a greater or a lesser portion of their lives affords a sufficient reason for placing them in a separate group as one of the types of high-grade amentia.

As is the case generally in high-grade amentia, the ages of incidence of the several attacks are uncertain, and the symptomatology exhibited is various. An attack may be precipitated by the normal physiological changes occurring at any of the "critical" periods of life, or by any undue or unusual condition of "stress," whether toxic, physical, or mental, etc. A patient may, for example, suffer from one or more attacks of insanity during the period of adolescence, and may then develop another, some years later, after confinement, or may continue sane until the pre-senile or even the senile period of life. Other cases, again, may not suffer from any attack whatever until middle life or later, and in some instances no psychic phenomena of so abnormal a character as to necessitate an asylum *régime* may appear until even the senile period of life is reached. Whatever be the age of incidence, however, the result is recovery, after a varying period, without the development of an appreciable amount of dementia. The period elapsing between the recurring attacks of insanity varies in different cases, and is largely dependent on the inherent resistance of the individual to his environment. In cases of low resistance, the attacks may be almost or quite periodic, whereas if the resistance is greater many years may elapse before a recurrence of insanity. It is, in fact, probable that a large proportion of the cases of "recovery" from an attack of insanity relapse sooner or later, and that the remainder would also do so were it not that they die before the recurrence actually happens or that their environment has been made suitable to their capacity of resistance by their friends or relatives.

The symptomatology manifested during the attacks is as various as is the age-incidence of these. Whilst, however, in the case of the latter the important factors are the resistance of the individual and the external "stress" which is applied, in that of the former individual temperament and general psychic experience are probably the determining causes of the phenomena manifested. The symptoms may be those asso-

ciated with excitement or with depression, or a period of excitement may be followed by one of depression. The order of sanity, excitement, depression, and again sanity may always be the same, and each of these phases may even be of approximately the same respective duration in subsequent attacks, as in patients whose mental equilibrium is very unstable. The psychic disturbance may, however, be of an entirely different character in the several attacks, as in patients who are more stable mentally, and in whose cases environment is the most important factor in determining the incidence and even the course of a relapse. Almost any phase of psychic disturbance may exist during an attack, and if more than one phase occurs, each may vary in duration independently of the other. It is, nevertheless, common to find that the more regularly and the more frequently the attacks of insanity recur in a given individual, the more usually do they resemble one another both in symptomatology and in duration; and this statement applies both to still relapsing cases, a proportion of whom are usually described as "folie circulaire," and to cases permanently under asylum treatment.

The usual, if not the invariable, result in cases which live long enough is a gradual shortening of the lucid intervals, with, finally, permanent confinement in asylums; and in a large proportion of the cases little or no dementia supervenes even when the patient has become aged, unless normal senile involution of the cortical neurones ensues, or any of the causes of progressive and secondary dementia interfere with the course of the case.

Amongst the exciting causes of the onset of attacks, alcoholic excess is one of the most potent, but it does not, in the type of case under consideration, necessarily produce any cerebral dissolution. Cases, in fact, which readily lose their mental equilibrium under the influence of alcohol may be brought before a magistrate scores of times before or without going to asylums at all, and may continue up to old age without the development of dementia. On the other hand, however, cases, which exhibit greater resistance to breakdown, will, under the prolonged and excessive abuse of alcohol, with the other necessarily concurrent mental and physical forms of "stress," sooner or later develop some or even considerable dementia.

In cases of the type under consideration it is not uncommon

to find a premonition of the incidence of an attack, and patients after recovery may graphically describe their efforts at self-control and how these finally became ineffectual. In some instances there is complete recollection of the attack, and the patient is able to state exactly what occurred during it, and to describe his utter inability to control his thoughts and actions. In other cases, again, especially when the attack is of sudden onset and great severity, the patient has no recollection of what has occurred, and consequently on recovery shows complete loss of memory regarding the events during his illness. In such severe cases the patients, as regards their behaviour, their general appearance, and even their facial expression, may be quite unrecognisable. Modest and quiet girls, for example, become talkative, noisy, excited, and erotic, and pleasant and respectable women become foul-mouthed fiends.

In no type of high-grade amentia is the homologue in sane individuals more readily discoverable than in the group of cases under consideration ; and, though it be at the risk of a charge of exaggeration, the writer will now proceed to illustrate what appears to be the psychic relationship between recurrent insanity on the one hand and the lapses of control over the emotions, words, and actions which occur in the normal individual on the other. The ordinary sane person usually exercises relatively little voluntary control over his emotions or intellectual processes, but glides along according to accident of environment and pre-arranged duties ; and all individuals are subject to more or less severe lapses of voluntary control. Common examples of this are the excitement or depression which lasts for hours or days under unusual circumstances or after startling occurrences. In the presence of strangers one person may talk incessantly and volubly from sheer nervousness, whilst another can hardly be got to speak a word. Other individuals, again, whenever they converse, even with strangers, are quite unable to refrain from repeating all kinds of fact or gossip which ought to be kept secret, and afterwards are quite aware of their delinquency. A girl may be violently excited for hours before a ball or after the advent of a new gown ; and a man, after a game of golf or cricket, may be a perfect nuisance to uninterested listeners by persisting in recounting his exploits, and particularly in repeating what would have happened had so-and-so *not* occurred. More marked examples of loss of

voluntary control are the violent "passions" or "sulks" which in some individuals are precipitated by apparently inadequate causes, and these, again, pale before the extreme excitement and "delirium tremens" of acute alcoholism. To these examples may finally be added the tendency, as a natural reaction to prolonged application to work or to undue restraint, to break control for a few hours or more and to "go on the bust," which is so extremely common in nearly all individuals, and which, where resistance to environment is at all weak, may end in undesirable results. The last instance is especially instructive owing to the readiness with which it recalls the severe efforts to keep sane which are made by many cases of insanity, who suffer from frequent relapses, and who, during their lucid intervals, are most anxious to obtain their discharge and to return to their friends.

Group III.—Class (a).

Relapsing Cases.

This class contains 19 cases, of whom 6 are males and 13 are females.

Though, from what has already been stated, the number of cases in this class is no indication of the actual proportion of lunatics of the type under consideration, it serves a useful purpose in that it shows that patients suffering from relapses are not infrequently met with in an asylum population during any given period of time, in this instance a few months. As will be seen later, in Part III of the present paper, the total of 728 cases includes 48 examples of senile or "worn out" dementia, which were primarily cases of recurrent insanity, and 75 examples which had continued in asylums since primary certification. Both these numbers represent an accumulation of cases of varying duration, and their exact use would be beset with fallacies; but they at any rate indicate that the proportion of relapsing to primarily incurable cases is high, and they are therefore made use of in the absence of more trustworthy data. The writer does not, however, wish to attach any undue importance to these figures; for, though the average duration of life in relapsing cases is probably much higher than it is in the chronic insane, the proportion of the

former figure to the latter still perhaps remains higher than an average recovery rate of about 30 *per cent.* would allow of, even if the majority of these cases relapsed.

The symptomatology exhibited during recurrences of mental alienation is various and difficult to classify into types. In a large proportion of cases, however, certain emotional states, namely excitement, depression, and fear, predominate, and these may be associated with or may result in impulsive actions, *e.g.*, violence to others, destructiveness, and attempts at suicide, the last usually by such methods as can be carried out without premeditation.

Cases of the excited type are boisterous, restless, violent, noisy, mischievous, and imitative. They possess only the slightest power of fixing the attention and are unable to settle to anything, but react to sensory stimuli so rapidly that their actions appear wild and their speech incoherent. Their attention flits to and fro; whatever they begin to do, or say, or sing they leave unfinished, and their mental functions at times appear to be in a state of confusion. With patience it may be possible to get them to write their names, but they either leave the name unfinished, or cover it with flourishes, or end by performing some violent or absurd antic. They can usually be got to answer occasional questions, at any rate if their attention can be attracted long enough to enable them to understand them; and therefore short questions are more frequently replied to than long ones. They often, however, give inconsequent or inapposite replies, and they may make voluntary remarks, usually about objects near them or sounds heard by them, which appear quite incoherent unless both the patient and his surroundings are most carefully and minutely studied. Such replies and remarks usually form sentences and phrases which in themselves are verbally correct, and in cases where the ideation is so rapid, and the attention is so flitting that no sequence of ideas can be traced, this characteristic of verbal correctness in the phrases and sentences spoken is still maintained. In the more marked cases of exaggerated reaction to external stimuli, where the capacity of attention is practically absent, only the shortest phrases, or single words even, may be repeated, and here especially association by similarity becomes evident, and whole strings of words which rhyme or sound alike may be repeated. Beyond this stage it is not usual for sensory and

ideational hyper-reaction to pass in cases of the type now under consideration, for on the one hand aberrant and grotesque ideational processes generally occur in cases belonging to Classes (b), (c), and (d) of the preceding group, who are never really sane, and on the other, still more abnormal ideation is, at any rate as a rule, inconsistent with recovery, and cases exhibiting it are in the preliminary stages to or have actually developed more or less dementia. Hallucinations are not common in cases of relapsing insanity, unless the attack is precipitated by alcoholic excess or some other cause of cerebral toxæmia; and many examples are credited with this symptom when the explanation of the phenomena exhibited is to be found in the hyper-æsthesia of the special senses, which occurs in association with an abnormally rapid reaction to the sensations experienced.

In certain cases, of the excited and apprehensive types especially, it is not uncommon to meet with a psychic state which, without analysis, might be mistaken for confusion, but which is really allied, on the one hand, to the inability to think which occurs in some persons owing to nervousness, *e.g.*, a student at a *vivâ-voce* examination, and, on the other, to the thoughtless remarks of children, or of persons who happen to be talking "through the backs of their heads." As an example of the former may be mentioned a patient who, on being asked her name, appeared quite uncertain as to her personal identity, asked the nurse who she was, and finally mentioned certain marks of identification which she possessed, and which would enable the question to be settled; and, of the latter, a patient who, when asked to open her mouth and show her teeth, said that she would like to have all her teeth removed and requested me to at once perform the operation.

Cases of the depressed type are more or less melancholic, and, if the depression is not so profound as to annul the capacity of attention, the patient is either unable to give a reason for his condition or he affords an intelligent explanation, which, in many cases at least, is in essentials true. At times a correct or possible cause may be grossly exaggerated, but the elaborate introspection seen in developing delusional cases does not occur. A certain patient gave, as the cause of his first relapse, his anxiety about his aged mother, who had recently become insane, and his mother gave as the cause of her attack

her anxiety about her son, who had just before developed his first attack of insanity. The son, again, as the cause of his first attack, which became obvious owing to a determined attempt to cut his throat, stated that he had begun to think that he could not help it, as it was born in him, for his grandmother was like his mother in the fact that she suffered from depression at times. The son, during the period he was under observation, recovered from his second attack, again relapsed, and once more recovered; and the mother remained an inmate of the asylum and suffered periodically from mild depression. As an example of a possible but exaggerated cause, which the patient, on recovery, ceased to accept, may be mentioned an individual who stated that his attack began owing to the worry from which he suffered owing to his having made a mistake in his accounts, which was the cause of great monetary loss to his employers.

Fear or apprehensiveness is the important symptom in many of the cases in the class under consideration. The patient is perfectly frantic owing to terror which he cannot explain or give a reason for. The emotion is in such a case not the apprehensiveness of a confused or lost patient, but is downright honest fear, and it may lead to violent behaviour or to sudden and unpremeditated attempts at suicide. One such patient could not be kept in bed a moment, and would not stay in a side-room unless the door was fastened. The opening of the door resulted in frantic attempts to escape, which, on one occasion, led to a struggle between the patient and a nurse, who, contrary to instructions, had entered the room alone. The contest lasted until they were both exhausted, and were found thus by another patrol nurse. This patient, in her frenzy, on more than one occasion mistook one of the medical officers for a relative, implored him to protect her, and clasped hold of him so tightly that he was with great difficulty removed from her clutches. Cases of this type do not form an especial variety but grade insensibly into those already described.

As has already been stated, relapsing cases frequently suffer from impulses. Some cases snatch at everything within their reach, either from acquisitiveness or mischief; others destroy out of wantonness any article in their vicinity, and others, again, are violent and dangerous. The most serious impulse, however, is that prompted by fear or misery, namely, an unpremeditated

attempt at suicide by, *e.g.*, drowning, jumping out of windows, cutting the throat, or strangulation. In some instances the act appears to be carried out either without any motive at all, or from an entirely inadequate one, as in the case of a patient who awoke feeling that he could not go to his work and that everything had gone wrong, and who straightway ran downstairs and attempted to cut his throat. It is quite probable that in some cases the motive for a sudden attempt at suicide is elaborated after the act has been unsuccessfully accomplished; and that at least a number of successful suicides "during temporary insanity" are unrecognised examples of the type of case at present under description.

As the cases described in this section recover and are discharged, it is only to be expected that during their residence in asylums they are useful workers. Of the 6 males referred to as belonging to this class, 4 worked well; one, an educated and eccentric man, refused to work usefully; and one, who suffered from phthisis, was unable to work and eventually died. Of the 13 females, 12 were good workers, and one, who suffered from chorea, was therefore unable to work usefully, and, after discharge, soon relapsed and was readmitted. The following five cases are average examples of those referred to in the section:

Recurrent Melancholia, with Suicidal Impulses.

CASE 182.—D. D—, male, married, carpenter, æt. 41. Certified 1½ years, son of No. 211.

Patient is recovering from an attack of recurrent melancholia of one and a half years' duration. He is somewhat lively in manner, and is talkative and inquisitive. He tries to read what I am writing and readily tells me the date when asked, though he first looks at a newspaper to make certain. His memory for both recent and remote events is perfect, and he gives a clear account of his case with very little cross-examination.

His first attack began suddenly three and a half years ago. Without any warning he got up out of bed, ran into the scullery, cut his throat, and was taken to the hospital. He did this because he felt that everything was going wrong and that he could not do his work if he went to it. If he could not work his wife and family would "go to the dogs," so he suddenly felt that he must commit suicide, and he did so. He never meditated suicide till that very morning, and then it was a sudden impulse, and he has not had such an one since. He was in the asylum for eleven months as a result of this attempt. He was then sent out

on trial for a month, but at the end of this period he was taken to a workhouse for a time and was then sent to another asylum, where he remained for four months, and from which he was discharged recovered. He then went home and worked up a small lodging-house. He did well for two and a half months, and then received a severe shock owing to his mother becoming insane. He became very depressed and felt unable to work. He began to think that people looked down on him as a lunatic, and he worried a good deal about this. He has always been accustomed to dream frequently, and, as a rule, the dreams are of a pleasant nature. Just before his relapse, five months later, he, however, had a most unpleasant dream which he remembers vividly. He "dreamed that he was down in a cellar or cave, and that there was a window in it which opened on a balcony. He felt irresistibly that he must run out of the window and escape, and when he ran out someone was waiting to take him."

He gives a hereditary reason for his illness. He says that he has begun to think that he couldn't help it as it is born in him. His grandmother was like his mother in the fact that she suffered from depression at times, and he thinks that he is also like her. He is very sorry for what he has done, but thinks it is a misfortune rather than a fault. He, however, is anxious "to know if he has anything physically the matter with him."

For some months patient continued to be interfering, quarrelsome, and mischievous, and he was often in trouble with other patients. He then recovered and was discharged.

Some months later he was admitted in a condition of profound melancholia. He was a physical wreck and suffered from severe and recent gonorrhœa. He again improved and was again discharged recovered.

Marked Eccentricity, with Recurrent Attacks of Mania.

CASE 184.—G. S. T—, male, married, carver, æt. 56. During the past fifteen to twenty years patient has been erratic and peculiar and has suffered from attacks of mania. He was in an asylum some months ago and also four years ago.

He is at present in a condition of wild excitement. He is excited, restless, and violent and most destructive to everything near him. He tears his clothes, throws about and breaks the chairs, etc., and can only be managed when in a padded room in strong clothing. He is noisy and shouts loudly and unintelligibly and gesticulates wildly. He clasps his hands, jumps up and strikes out, etc.

When I endeavour to attract his attention he shows that he possesses some power of attention. He becomes inquisitive and tries to seize my note-book and pencil. He makes a face at me, he points to his teeth and he tries to get me to shake hands. No satisfactory replies to questions can be obtained owing to his rapid reaction to sensory stimuli, but he says he represents the Queen and Crown, etc., and the more he is taken notice of the more grandiose he becomes. He is, however, quite rational and able to reply to questions if they are pre-

sented in a suitable manner, for he writes accurate replies when given a pencil and note-book.

Patient settled down gradually and at times was quite well behaved and apparently convalescent. He was, however, a good deal of trouble as he was constantly worrying some one or other, by correspondence or otherwise, about trifles, and he steadily refused to work. Eventually, some months later, he was removed from the asylum by his friends, and was then in all probability in what has been his normal mental condition during the past twenty years or so. He was an intelligent, well-educated, and clever man, and, in spite of the trouble he caused, was much liked and respected.

Recurrent Mania, with Apprehensiveness.

CASE 188.—E. S—, female, single, domestic servant, æt. 34. Previous attacks at the ages of 17, 21, and 33. No history of intemperance.

Patient on admission is a pale, restless woman, who is rather talkative and asks me to let her tell me what she has done. She only struggled with her brother in the house because she wanted to go for a walk. She has had no sleep for two or three nights. She thought she heard someone calling, "You ought to come up and see mother." Her brother said it was nothing. She asks me if her mother, Charlotte Clarke, later S—, is here.

She knows the day, month, and year, and approximately the date. She gives a fairly clear account of herself. She first went to an asylum when she was 17 or 18 years of age owing to brain fever, and she was there seven and a half months. She was in this asylum two or three times and was then in another asylum, whence she was discharged to the union. Then she went out to service. About a year ago she was again in an asylum for two months. She does not give this account very clearly and has difficulty in remembering details, and often returns to a question previously asked her, and adds the information.

About seven or eight years ago her baby Nellie was born, and she died when $7\frac{1}{2}$ months old. Patient knows who was the father of the child.

She at times shows much confusion during her anxious efforts to remember and to give information. She would, *e.g.*, very much like to see her sister to find out whether she is married. Then she says that she has lived at home since she last left the asylum, and adds, apparently *apropos* of nothing, that she is certain that one of the doctors here was known to her at another asylum she names (untrue). She wants to know if the people here think she is someone else, because one day she thought that she was someone else. She used to think that she was her brother. She says she used to have some little marks on her fingernails, and she might have been known by them to be herself. She often asks the nurse to confirm what she says, even if it is about a matter on which it is obviously impossible to do so. She does not seem to appreciate that we are all strangers to her. She seems to think that we must be friends, and she asks me if I am very much worried about her. Every now and then she clears of her confusion somewhat, *e.g.*, she

suddenly asks me whether she has told me she had a child seven or eight years ago, Nellie, who died, æt. $7\frac{1}{2}$ months. She then adds that she thought she was going to have another two years ago, but nothing came of it. She fidgets with her hands and whispers to herself when left alone.

There is no history of alcoholic excess, and she does not resemble a case of alcoholic confusion. She is not improbably partially confused, owing to a draught which she says was administered last night (before admission).

On admission patient was extremely nervous and apprehensive, and she was readily frightened. She continued in this condition for several days, could not be kept in bed at night, and would not stay in a single room unless the door was fastened. She was almost frantic when the door was opened, and seized hold of anyone near and struggled like an eel to get away. On one occasion when a night-nurse, contrary to instructions, opened the door when alone, she and the patient struggled on the floor of the room for upwards of an hour till another nurse passed on her round.

This patient rapidly improved, and was discharged recovered after a residence of four months.

Extremely Acute Recurrent Mania.

CASE 192.—M. C. E—, female, married, housewife, æt. 39. Nervous attack seven years ago. Father and sister insane.

An excited, violent, impulsive, and mischievous woman whose attention it is almost impossible to fix even for a moment. She at once asks me why the b—y h—l I don't shave myself. Then she picks up the admission book, tries to get hold of my stethoscope, pulls my ear, rubs my hair, and then rapidly reads her admission paper aloud. She is as lively as a monkey and as mischievous, but is also dangerous. Whilst taking her case she twice slapped my face and once struck me on the jaw. She at times gesticulates in a vicious manner, and at others sings and talks continuously and inconsequently, but not incoherently. When asked to write her name she takes the pencil and complies with the request, ending with some violent and irregular strokes of the pencil, which she finally hurls in my face :

The patient rapidly recovered, became clean and tidy and well-behaved, and a good worker, and was discharged recovered after some months' residence.

Presenile Mania, recurrent after an Interval of Twenty Years.

CASE 199.—M. J. F—, female, married, housewife, æt. 50. Previous attacks at the age of 30, and also three months before her present admission.

A restless, excited, violent woman who will not stay in bed. She laughs, springs about, and rapidly utters a conglomeration of incoherent

words and phrases. She picks up pencils or other articles that happen to be near her, imitates what is done or said in her presence, and at times gets quite violent. Age? "One pound twelve and sixpence I owe Dr. P—," then adds her name. Age? "Ten years older than you—44." "Dr. W— knows. Three months old I—." "Twelve and sixpence I owe you, sir." "So she seems to be, 3rd of May." "Look there" (pointing to a plant), "we've bought that for tenpence, sorry we had it." Throws a kiss at me. Then says, "13th June, wide, wide world. 23rd April, mind your business." "I beg your pardon, Dr. W—, you gave me a sovereign," etc.

Patient rapidly recovered except for a certain amount of dulness and slowness, probably associated with her fairly marked deafness. She relapsed several times for short periods during the next twelve months, and was eventually discharged recovered.

Group III.—Class (b).

Relapsing Cases who are under Permanent Treatment.

This class contains 28 cases, of whom 11 are males and 17 are females.

The chief constituents of the class are cases in whom the lucid intervals have become too short to make their discharge possible, or who rapidly relapse in consequence of the change of environment following discharge. The class also includes several examples of fairly-marked degeneracy who have succeeded in passing for normal individuals during a part of their lives, and who have, in consequence of prolonged confinement in asylums, become degraded to a much lower mental level. These cases, of which No. 205 is an example, have, in fact, lived in a refractory ward like beasts for so long a period that they have practically become lower animals without actual loss of intelligence. This condition of degradation finds its sane homologue in the case of well-bred "ne'er-do-weels" who, *e.g.*, join the army as privates and, after years of rough-and-tumble existence in this capacity, resemble, except for occasional glimpses of culture, the class with which they have mixed, in their actions and speech and in the general coarseness of their moral tone.

These degraded cases in many instances exactly resemble other types in symptomatology, and only differ in the fact that they have once been "sane" individuals and were originally of

the relapsing class. A difficulty thus arises, in the absence of a personal history, in distinguishing them from certain cases belonging to Classes (*a*), (*b*), and (*c*) of Group II ; and similarly cases belonging to Classes (*c*) and (*d*) of Group II are often with difficulty distinguishable from many of the systematised delusional cases described under Group VI. Far, however, from being a flaw in the general argument contained in the present paper, this gradual shading of type into type is important evidence of the relationship which exists between all the cases described under the term "high-grade amentia," for the separate groups into which the cases are divided are employed for convenience of exposition rather than with the object of suggesting that these several groups contain specific types of mental disease.

The recurrent cases of higher type than the preceding differ from these in possessing periodic intervals during which they are medically though not legally "sane." The prominent symptoms in these cases are maniacal excitement and melancholic depression, and the time relationship of these to one another and to the lucid interval varies in different cases, but is usually fairly periodic. Some cases may suffer from excitement only, and some from depression only, or the maniacal state may last a longer or a shorter period than the melancholic. It is even possible, as has already been remarked, to make the general statement, with reference to the cases contained in both the present and the preceding classes, that the shorter the duration of the lucid intervals is, the more the relapses resemble one another, in any individual case, in both symptomatology and duration ; and the longer the duration of the lucid intervals is, the less the relapses may be expected to resemble one another in either symptomatology or duration.

In their capacity for useful work, the cases in this class, during their lucid intervals, resemble those in the preceding. Of the 11 males, 9 were good workers, 1 refused to work, and 1 was permanently mentally incapable of work ; and of the 17 females, 5 were good, 3 were ordinary, and 2 were poor workers, 3 refused to work, and 4 were permanently mentally incapable of work.

The following six cases are inserted as illustrative examples :

Recurrent Mania, much Mental Degradation.

CASE 205.—H. W. A—, male, single, draper, æt. 46. Certified twelve years and previous attack at the age of 27.

A dull-looking man. Eyes rather close together. Forehead low and narrow. Ears large and without lobules. He gives his name as Alec A—. Age? "That I couldn't tell you, sir." He was born on May 13th, 1857, but cannot reckon his age from this. When I press him he stamps on the floor and then asks if the wood is "wood, wheat, hops, or Puck and the fairy?" He says he doesn't know where he is, and has come from "mother's womb." He at times eyes me curiously. He writes his name correctly, though he gave it as "Alec A—." When I say "Alec," he says "Ain't Harry Alec?" When asked if he has ever heard of the asylum from which he has come, he says, "Yes, Hop-garden, ain't it?" Asked if he has been there, he says, "Yes, was at St. John's Wood, making bricks." He then begins voluntarily to make such remarks as "There are 52 weeks in a year and 1760 days in a year," and asks me to suppose that "there isn't fifty-two weeks in a year." I then ask the number of days in a week, and he says, "Seven, and 12.30 is the smallest hour of the morning and nearly one o'clock."

He is untidy and filthy and degraded in his habits. He eats filth and fæces—and on one occasion ate a dressing which had been applied to a cut on his head—and he drinks urine and the contents of spittoons. He is disgusting in his behaviour and very destructive to clothing, etc. He never works, and is at times very troublesome.

Recurrent Melancholia of long Duration.

CASE 208.—H. W—, male, single, farmer, æt. 59. Certified 22½ years and had several previous attacks.

A dull, depressed-looking man, with bright eyes and a respectful manner. Palate V-shaped and very narrow in front, and not high. No lobules to ears.

He gives his name correctly. Was born on March 6th, 1844, and the present year is 1903, and therefore he is 59 years of age. He knows quite correctly the present day, date, month and year, and also the date of his admission here. He knows from what asylum he has come. He went there on August 3rd, 1881, and therefore was there 23 years. He did various kinds of work in that institution. He worked in the dining-hall and the stores chiefly. He does not smoke.

He is very ill, and he went to that asylum owing to being very ill. Now and then he suffers from dreams, but never from hallucinations. He complains a good deal of dyspepsia. "No doubt there is an enemy, but where it is I couldn't tell." He has "not been before the County Bench. I was summoned once before the County Bench for trespass and carrying and using a gun." He does not know who sent him here. They had orders at the other asylum to release him, but they didn't do so and sent him here. He supposed that this was ordered by "the onlookers." He is very dull and slow and hypochondriacal and is much worried about his different ailments, real or fancied, but especially about

a rupture from which he suffers. In spite of this, however, he is quiet and well-behaved and works willingly and industriously.

Recurrent Melancholia of long Duration without Dementia in a Patient æt. 76.

CASE 211.—E. D—, female, widow, no occupation, æt. 76. Certified since the age of 74, and has suffered from attacks of melancholia since the age of 37. Son insane (No. 182), and also a relapsing case.

A healthy and well-nourished old woman who is somewhat apathetic, as a rule, but is nervous and fidgety. Her memory is good, her intelligence is normal, and she can give a clear and quite satisfactory account of herself. Her present attack was precipitated by worry over her son, who had recently recovered from an attack of melancholia and was causing a good deal of anxiety. He relapsed shortly after she was sent to the asylum. She is more concerned about her son than about her own condition, and frequently asks to see him or sends him small presents. At uncertain intervals she suffers from mild depression, when she becomes tearful and miserable for a few days at a time. She is somewhat hypochondriacal, petted, and irritable, but is in relatively good health for her advanced age. She constantly asks for her discharge, and regularly corresponds with her family and friends. She attends to herself, makes her bed, etc., and behaves exactly like an ordinary decent old woman. She also does a little dusting in the ward, and she sews well as regards quality of work, though she does not do very much.

Recurrent Mania of long Duration, with still frequent Relapses.

CASE 215.—E. S—, female, single, servant, æt. 67. Certified since the age of 43. A previous attack at the age of 41. Son in the asylum (No. 24), an imbecile of moderate intelligence.

An intelligent-looking old woman who smiles in a pleasant manner, and readily gives a fairly clear account of herself. At present, during a lucid interval, her memory, apart from lapses during her attacks, and intelligence are good. She talks sensibly and rationally and asks many questions about what has happened during her last attack.

The lucid intervals are short, lasting a few days to a few weeks at most, and are followed by a much more lengthy attack of maniacal excitement, during which she is a totally different woman. She looks during these attacks a veritable fiend, and is excited, noisy, violent, spiteful, and dangerous, also destructive and of filthy habits. She is abusive and most foul-mouthed, and is possessed of remarkable activity and endurance considering her age and apparently delicate health.

The period of excitement is followed sooner or later by a shorter period of depression, during which she is silent and moody and feeble, and from which she gradually awakens to lucidity. For several days before finally becoming cheerful she talks readily and rationally and asks questions about her attack. She is pleased to see her son during her lucid intervals, and often asks after him.

Recurrent Mania of Forty-four Years' Duration, with still frequent Relapses.

CASE 216.—M. A. M.—, female, married, no occupation, æt. 64. Certified since the age of 49, and has suffered from recurrent attacks of insanity since the age of 20.

A lively old maniac, who is devouring bread as if she had not had anything to eat for a week. She at once asks me if I am doing a bit of shorthand work, and wants badly to know what I am writing. Her memory is perfect, and her intelligence is normal. She rapidly gives me full details of her past life, and when I turn over a leaf remarks that "I have soon filled a page with her logic." She was married, during a lucid interval, at the age of 42, and has no family. She was kept, she says, in the last asylum, "because Dr. — is an old fool," and then she shakes with laughter. During physical examination she squirms and rolls about, laughs almost without intermission, and wants to know "what the devil are you doing?" She places her hands on her groins and is very anxious to be covered whilst I am examining her abdomen, and when her nightdress is taken off she covers up her breasts and laughs in an erotic manner.

The patient for several weeks at a time was a useful worker, but was jovial, excitable, garrulous, and erotic. She then relapsed, and for a varying period was excited, noisy, violent, and foul-mouthed. This attack was then followed by a shorter, but also variable, period of depression, during which she was reserved, silent and lachrymose, and after which the lucid interval developed gradually. She was at times difficult to get on with, but was a favourite.

Recurrent Mania of Periodic Type since the Climacteric Period.

CASE 220.—M. W.—, female, married, housewife, æt. 57. Previous attacks at the ages of 49 and 53.

An excited, restless, noisy and violent woman, who shouts, sings, laughs, and throws her limbs about. She at times plays with her fingers, tries to tear the sheet with her few remaining teeth, pats her limbs, and at the same time utters rapidly, with occasional pauses, such phrases etc., as the following: "What can I do? my boys are all girls. I can get nowhere. I'm a beggar outside Calvey. I say, my boys, I'm proud of you, George IV. and Henry VIII. You've got to meet the one you hate. Salome, I hate you." She covers her head with the sheet and then speaks of "dark things and light things." "Covered again in No. 2 and revealed in No. 3, and bless and kiss in No. 3 the Royal." Then she lies quietly for a few moments. "Cover A B C, Cover. Cover what you never did, though. Incline my daughter unto me, incline, decline, recline, my fair lady. I'll fair lady you." She takes practically no notice of her surroundings, and her attention is very difficult to retain even for a moment. She does not always react to external stimuli, but at times she responds with extreme rapidity. Once she suddenly snatched my handkerchief from me, but otherwise took little or no notice of my presence.

The patient recovered steadily, and was a good and willing worker for several weeks. She was then discharged, but she relapsed at once. She rapidly recovered and some months later she was again discharged.

(*To be continued.*)

Some Points in the Early Treatment of Mental and Nervous Cases (with Special Reference to the Poor).

By A. HELEN BOYLE, M.D., Medical Officer, Lewes Road Dispensary for Women and Children, Brighton.

THE object of the paper is to urge the establishment throughout the country of institutions for the treatment of nervous cases and of early uncertifiable insanity. The fact of certification leads to an erroneous view of insanity, for it does not make a person insane, nor does the absence of it prove sanity. The boundary line of certification is a purely arbitrary one, and, from the nature of the illness and our present ignorance of it, this is bound to be so. Certification does not necessarily mean that at such a moment a person became mentally upset, but rather that at such a time, after observation showing them not to be responsible for their actions, it became advisable, in the interests of themselves or others, to control them, if required, by force.

Treatment, therefore, should begin irrespective of certification. The law, a very valuable one, surely has importance purely in that connection; it merely sees that physical control, when given, is not abused. Certification is only an incident in the course of the insane illness, and not necessarily, nor even often, at the beginning of it.

To use a paradox as a short cut to what I mean, insanity begins before a person is insane, and it is then that recognition and skilled treatment are most valuable.

It is this truth which terribly needs to be driven and hammered into the understanding of the lay public, and even more into that of the general practitioner, who is too apt to associate mental trouble with the striking picture of an acute maniac and to think that psychic disturbance short of delusions,

or shall I say of *expressed* delusions, is what is called "only nervousness" or "hysteria."

Of how many of the frequent suicides is it not true that some psychosis or irresponsibility from which they should have been saved lay at the bottom of their successful attempt? And yet, perhaps, it might have been difficult to satisfy the Commissioners in a certificate, more difficult still to satisfy the magistrate, and most difficult of all to induce the friends to apply for the reception order.

It is these uncertifiable and, I believe, rescuable cases which could be admitted and often cured if there were any institutions which would take them and have a staff acquainted with nervous trouble to deal with them. The East End and equivalent slums to which they drift are not good sanatoria for the mentally and nervously unstable.

To quote an illustrative case: A man, who had been an assistant master at a well-known art school, married young. They struggled along, had three children, and then he got thrown out of work through not being very strong. He did not drink, and was a good husband, but was somewhat nervously weak. They came down to the East End because it was cheap, and he hoped to get unskilled labour, which, of course, run down as he was, he was quite unfit to do. I do not know whether he was an early mental case or a neurasthenic, but in either case, where in England at present could he get the treatment he required to prevent insanity or cure his nervous breakdown? The answer is, Nowhere. No hospital would take him because he had no organic disease, no asylum because he was not certifiable; and so he would be forced into insanity or a nervous condition from which there might be no recovery possible—in the former case to live an incubus upon the rates, in the latter probably to die, in either to leave his family unprovided for, and battling with a nervous heredity amidst poverty and distressing surroundings.

It seems hardly like a civilised nation that this should be possible.

I am not concerned to discuss the question of the increase or not of insanity, for we all agree that there is too much of it, and this is all that is required for the argument, that no stone should be left unturned in dealing with its prophylaxis.

Do we as a nation do all in our power to prevent nervous

breakdown of all sorts, including insanity? Most certainly we do not, and we are behind most of the other civilised nations in this.

It is curious and remarkable that England, with her anti-vivisection and anti-vaccination societies, her prevention of cruelty to children and to animals, her homes for lost and sick cats, her nurses for invalid dogs, this same England should allow many of her good workers to be driven into insanity for want of timely and suitable aid.

This year the Council of the Lewes Road Dispensary for Women and Children in Brighton has opened a small hospital, one of its principal features being that all nervous cases are eligible except those requiring restraint and suitable for asylums.

In order to get clear ideas as to what was being done elsewhere in this line, I went to Glasgow and Germany. Dr. Carswell, of Glasgow, is the first in this country to have wards run by public funds for the observation and treatment of early cases of insanity, hysteria, and so on, into which wards he can admit, with little preamble, patients who are unsuitable for certification and yet are in need of treatment. The immense advantage of these wards is in being able to treat those cases which cannot be certified on application, but in whom signs of nervous instability have been sufficiently well marked to induce them or their friends to apply for assistance. They will also, no doubt, lead to much earlier application for help than if asylum treatment or none at all were the only possible results.

In Germany I saw the klinik at Berlin, under Professor Ziehen, in Munich, under Professor Kraepelin, and in Göttingen, under Professor Cramer, and was very much impressed, both by their great courtesy and kindness to a foreigner and by the thorough equipment of their hospitals, both for treatment and for research. Besides these great kliniks, with their grand possibilities for treatment, research and teaching, I saw the two first institutions, such as I hope we may soon have here, for the care of nervous cases in the poor other than certifiable mental disease.

The one, Haus Shoenow, is at Zehlendorf, near Berlin, under Professor Max Laehr. It is a semi-charitable institution, and each patient pays 28s., or more, a week. For the poorer

ones there is a fund to assist. This maintenance rate is high, and is due chiefly, I believe, to the staff, which is large. Work, such as brush-making, carpentering, gardening, book-binding, and so on, is taught to those able to do it, and there are arrangements for lying out, electrical treatment, baths, etc. Both sexes are admitted.

The second institution is the Provincial Sanatorium for Nervous Patients at Rasemühle, near Göttingen, under Professor Cramer. This is maintained by the public funds of the province of Hanover, and is directed by the Professor of Psychiatry and Neurology of the University of Göttingen, who also is superintendent of the pauper lunatic asylum. Here also the class of patients that I have described are taken and both sexes are admitted—sharing the sitting-rooms—while there is one small house reserved for women only.

To return to the hospital in Brighton.

(1) *It is not reserved exclusively for nervous cases*, though largely used for such patients. It seemed better to assert the principle that nervous troubles are just illnesses and can be treated under the same roof as other diseases.

(2) *The patients are not kept in bed unless needful for their health.*—Provision is made for walks, sitting out by the sea, going to church, bicycling, and so on, while having the supervision they require. When able they help in housework and in the garden. Experience teaches that some nervous cases need a considerable amount of exercise, and it is managed partly by outside voluntary help, some of it being done by the private patients in our own house who, when well enough, are very glad to help in dragging another poorer human being out of the ditch they have scrambled up from themselves.

(3) *The medical supervision is done by people who have had some experience of both insanity and neurology.*—It seems an odd thing that these two should ever have been separated in practice, but in England it is the rule and not the exception to have consultants practising as neurologists and alienists respectively. Personally, it appeals to me as about as reasonable as if one man undertook to treat the heart and someone else the blood-vessels, and in practice I believe they find that their patients offer them a fair selection of both.

Perhaps this endeavour to divide up the treatment of the nervous system is to some extent responsible for our lagging

behind other nations in the treatment and teaching of both mental and nervous disease.

(4) *Numerous patients should be treated together.*—They do far better in all but exceptional cases. It is, in fact, depressing to be the only incapable or sick member in a household. The difference between them and the healthy is marked and they get rather left out; they feel worse than they really are; there is no one for them, in their turn, to give way to, no one to whom they are in any particular superior, and this militates very seriously and often unsuspectedly against recovery.

We estimate our own value very much by that of our surrounding average, and it is well for most nervous cases that this should not be too high. In the selfish it fosters egoism, and a demand that all the healthy shall give in cheerfully to them as suffering martyrs, and they become the neurotic vampires we all know. With the unselfish they become oppressed by their incapacity; they feel that they are only a burden. There is many a case of depression which would recover if you could remove the stress of this rather reasonable thought from them, and it is easily done where there are others.

The psychic treatment as apart from the physical is perhaps nowadays somewhat neglected, though Kraepelin maintains that the psychic element is steadily increasing in insanity, and Dr. Weatherly has recently called attention to it too.

It may be a good hypnotic for some cases of insomnia to give the patient the onus of entertaining others by singing or reading in the evening, for the warm glow of satisfaction at success may be more efficacious than a hot pack.

Therefore, while making it possible to keep those who might harm each other apart, it is invaluable to treatment to have a sufficient number of patients together. It is difficult to understand why so much weight is laid on *single* care for the incipient cases under the new Bill.

(5) *There should never be too many patients for the medical staff to know them thoroughly well personally.*—Personal influence is a large and important factor.

(6) *There should be provision for the treatment of women by women.*—Perhaps I may be forgiven for thinking that this is often a help to the patients. It is easier for a woman to understand a woman and the things that she does *not* say than it is for a man to do so; and though no doubt there are

cases where it will be as well not to understand too much, a certain amount of density is easily assumed.

(7) In an institution for such cases there should be an entire absence of red tape, and the type of building which would probably suit best would be cottages something like Dr. Barnardo's Cottage Homes. The cost can never be very low, but should work out somewhere between that of asylums and general hospitals in England. At the little Brighton Hospital, with twelve beds only, it will be probably about 15s. a week per head—possibly less.

In conclusion it is to be hoped that many and better ones will start and flourish in England for the sake of humanity and economy. Even if we have to wait for the slow movements of Parliament for effective kliniks, these hospitals at least we can have at once.

The Provision of Suitable Accommodation for the Various Forms of Insanity. By JOHN MILSOM RHODES, M.D., Chairman of the Chorlton and Manchester Asylum Committee, Alderman for the County Palatine of Lancaster.

"I NEVER saw anything like the English people," remarked a foreign expert to me at an International Congress; "they have the best institutions for public assistance in the world, but they never have a word of praise for their own asylums: on the contrary, they are always criticising them." My reply was: "Is it not because we are always criticising our institutions and trying to remedy their faults that they are the best in the world?" Our friends across the channel appear to be very much of the same opinion as the expert. They praise our asylums as being better and costing less than the French; specially do they praise the administration of them; the character of the attendants in our asylums as compared with their own comes in for warm commendation; even our lunacy law is—*mirable dictu!*—described as *plus simple que chez nous*. If it is, then the French lunacy law is decidedly complex; for it does appear to me monstrous that while under our present law we have only three medical inspectors for

100,000 patients under the care of the Lunacy Commissioners, we should have two for the care of less than 1000 Chancery patients, two thirds of whom are in asylums and therefore already under the care of the Lunacy Commissioners. The system is wrong, and in my opinion it is a mistake to place one class of cases suffering from mental disease under one authority, another class also suffering from mental disease under a second authority, and a third class of cases under the Local Government Board, for that is what our present system amounts to.

The law must be revised. When in 1888 I moved the resolution asking for the inquiry which is now proceeding, my object was not the treatment of the feeble-minded but of the epileptic and insane. I never have been able to see why the unfortunate sufferer from mental disease should in the vast majority of cases have to sue *in formâ pauperis* for admission to our mental hospitals, while if suffering from infectious disease he can demand admission to our fever hospitals without even the taint of pauperism. The sooner we call our asylums what they really are—our State Hospitals for the Treatment of Mental Disease—the better for all concerned. Whatever views the Royal Commission at present sitting may take, one thing is certain, *viz.*, that there must be an alteration of the law dealing with cases of mental disease. No doubt there are many gentlemen who strongly object to chronic harmless cases being sent to asylums and who say that they can quite as well be kept in workhouse sickwards; probably those gentlemen are thinking of the great unions like Birmingham, Chorlton, Bristol, Manchester, and West Derby, with several hundred cases in their wards for the insane. It is necessary to remember that great unions of the character named are few, the number of small unions many. No doubt the great unions could combine, as Chorlton and Manchester, Birmingham and King's Norton have done, to provide proper accommodation for epileptics, and the system might be extended by the joint Boards making arrangements to take in cases from the smaller unions; but there is little doubt that in many cases such a course would not be practicable—the parochial spirit has as many lives as a cat. There is another reason against union care, and that is the impossibility of proper classification, either mentally or morally.

Another aspect of this question must not be lost sight of, the fact that the union is the only institution in the rural districts to which many of the physically sick poor can gain admission. Is it right to have a case of acute pneumonia placed next to a case of noisy dementia, as I have known done? Surely no one will defend that system. Probably some gentlemen will oppose county care on the ground that it is cruel to take these cases a long way from their friends. If this argument is worth anything, it must apply as strongly to the case of the 100,000 patients in asylums as to the 11,000 in ordinary work-houses; but is the argument a sound one? The reply made to my inquiries as to the number of patients visited by their friends after the first twelve months was, both in this and other countries, that they are seldom visited in the great majority of cases; to quote the words of a United States Report, "They are sadly neglected and apparently forgotten by their families; there are exceptions, but this is the rule."

I came across a curious case in a Scottish asylum recently. A visitor came and asked to see M. A. S.— There was some commotion, because no one knew who she was. The name was found on the books alright, and so it was concluded she must be in the asylum. One of the oldest attendants thought it must be "old Queenie," and it turned out to be so; she had never been visited for forty years.

Is it possible to provide good accommodation—and good it must be for those who are detained against their will, often for the benefit of the State—at a less cost than we have done? I believe it is, but if we are to do it we must realise the truth of the lines:

"New occasions teach new duties,
Time makes ancient good uncouth."

"It is time that the people and those to whom they intrust the responsibility of making suitable provision for all the insane understood this—that they realised that the era for spending five years in selecting a site, building a hospital for six hundred inmates, and then sitting down to congratulate themselves on such a monumental work for humanity has passed. The building of accommodation at moderate cost, on a scale commensurate to the daily needs, must be accepted as a matter of course and brought down to business methods. There is hence-

forward to be less laying of corner-stones with appropriate ceremonies but more ordinary brickwork, building to anticipate rather than follow the needs of the insane." (1)

In building our asylums as if we were providing for one uniform class of cases we made a mistake, and if we build asylums solely for chronic cases we shall be making a still greater. I never was theoretically in favour of chronic asylums, and now, having had some years' practical experience, I am convinced that they are bad both in theory and practice.

A dozen years ago chronic asylums were recommended as a panacea for all the woes of asylum committees. That was not my opinion fifteen years ago and it certainly is not now; to stamp people as hopelessly insane has always appeared to me a most cruel thing, because we have seen recoveries take place after many years. The system was, however, recommended chiefly on the ground of economy, and the Lancashire Asylums Board, to my regret, provided one. It has been open three years and a half, and here is an extract from a recent Report of the superintendent: "The patients complain bitterly about being sent to Winwick, which they have been told is for patients who never recover, and where there is no chance of discharge, the immediate consequence being that the patients feel no incentive to work or to exercise self-control over their behaviour. It seems irrational, and I am sure it is unscientific, to accumulate in one building a large number of patients who are suffering from disease and to stamp upon them the stigma of being hopelessly insane." Dr. Simpson very properly points out the depressing effect upon the staff of having only to deal with patients belonging to a degraded and incurable class, and also that the strain is more severe upon the attendants, seeing that they have no convalescent cases. As for the assistant medical officers, they have no chance of obtaining a thorough knowledge of the treatment of acute cases of mental disease. There is another disability, and that is the scarcity of good workers. Human nature being what it is, you can hardly expect the superintendents of the ordinary asylums to send away their best workers. The consequence of this is that you have additional cost of labour in the laundry, kitchen, garden, and workshop. The great recommendation was said to be its cheapness. Well, with every care taken to keep down the expense there is less than a penny per week difference in the

cost between Winwick and Prestwich and Whittingham. Corroboration of this aspect of the question comes from institutions similar to Winwick. The Superintendent of Leavesden says : " There is no doubt that asylums for chronic insane and imbecile patients cannot be so cheap in the working as was anticipated " ; and there is another important fact, which is well brought out in the remarks of the Superintendent of Caterham, that " of late years the character of our admissions has entirely changed, a large proportion now being transfers from county asylums who, though certified as harmless, are frequently very troublesome to manage. Under existing conditions and from time to time it has been found necessary to increase the staff." Of course with an increase of staff comes an increase of cost ; the weekly average cost of " maintenance " has gone up 4*d.*, but the total has gone up nearly 1*s.* 4*d.*

Other places tell the same story. Commission after commission of experts in the various countries of Europe and the United States have recommended the abandonment of the old barrack asylum and the substitution of an institution more in harmony with the humane and scientific spirit of the age.

I need hardly remind you of the saying of Pinel that every one has a right to enjoy the greatest possible liberty compatible with the public safety.

I do not think that all our asylums carry out that doctrine ; not that I can see my way to adopt the open-door system *in toto*, but I do think the high walls that surround all the buildings, and the estate as well in some cases, are a sad relic of a melancholy past, and a costly one too, and I think there is a middle and a better way of building asylums.

Unnecessary expenditure has no doubt resulted from a pseudo-economy on the part of the administrative bodies. They have grudged spending a hundred or two on inquiries whereby they might have saved thousands. The Lancashire Asylum Board recently had to face building a sixth asylum, and I am glad to say that they sent two experts, Dr. Cassidy of Lancaster, and Dr. Wigglesworth of Rainhill, to cover the ground that Mr. Alderman M'Dougall and myself had covered, and report upon the continental asylums. These gentlemen, after making an exhaustive inquiry, reported in favour of the colony system. There is no use ignoring the fact that, owing to the confidence of the public in the asylum, the four-shilling

grant, the condensation of the people in the towns, and the increasing employment of women, a change has taken place in the character of the cases that have to be provided for by the County Councils. The percentage of cases of mania has decreased, melancholia has increased, and there is also an increase in the ratio of senile cases of 4 per 10,000, all pointing to the fact that the cases, instead of being in the workhouse or with friends, are sent to the asylum.

Like it or not as we may, there is little doubt that before ten years are past nearly all cases of mental disease will be under county care ; if that is so, the question is, how can we best provide for them ?

Roughly speaking, provision must be made for (1) hospital cases, (2) chronic dangerous cases, (3) chronic harmless cases able to work, (4) chronic harmless cases unable to work.

We are all agreed that for the acute and curable cases we must have first class hospitals with up-to-date appliances, but do we require that class of building for all our cases? I think accommodation might be provided for the chronic insane of the custodial class in small closed pavilions, and for the infirm class in similar open buildings. For the class of chronic harmless cases able to work our provision has been made on wrong lines; the villa holding from twenty to forty is better in many respects and the cost is less. There are some gentlemen, for whose opinion I have the greatest respect though I do not agree with it, who appear to look upon the corridor as some of the clergy look upon the Athanasian Creed. One gentleman asked me how the nurses were to get from ward to ward without a corridor, and seemed surprised when I said I did not want them to get from ward to ward but to attend to their work in the ward, and then go clear away from the wards to their own separate quarters. Scotland, half the countries of Europe, and those the best, and most of the United States authorities get on as well without corridors as with. Why should we not at any rate make the experiment, and see if we cannot make our asylums less like a combination of factory and weaving shed, and more like a home? I do not think many people have thought about the cost of the corridors. At one large asylum not many miles away there are three miles of corridors, or an addition to the cost of at least £15 per bed—*cui bonum*. County Councillors have an idea that these corridors are such

nice winter gardens for the patients. My experience is that, except when the patients are going to the dining-hall or to the dormitories, they see very little of the corridors. The fever hospitals, inebriate homes, and some of the hospitals manage without corridors, and therefore, so far as nurses are concerned, there is no necessity for them.

One great objection to doing away with the corridor has been the difficulty of getting the patients to the dining-hall in bad weather. Well, they do it in the States, and say there is no difficulty about it ; but the opinion of the best authorities is that it is better to take the dinners to the patients than the patients to the dinners, and from what I have seen I agree with that view. There is another advantage of dining them in the villas, and that is there is less chance of disturbance from noisy cases. A further advantage is that you can differentiate in the diet of the workers and the non-workers with less fear of discontent, as the patients in one home know no more what the others have got for dinner in the next home than you do about your next-door neighbour's dinner.

The first thing to do to reduce the cost of our asylum buildings is to do away with the corridor, and the second, to remember that we are not building a town-hall but homes for the sick to dwell in. We all know that like seeks like ; and by providing cottages holding from twenty-five to forty you can certainly classify your cases better than you can in the great pavilion asylums such as you see in France, and which cost far more than the English. Efficiency and economy are combined in the colony system, for you can provide additional villas, good enough for private cases, complete for £110 per bed. Thirdly, do away with the high wall all round the estate, which is simply a relic of the time when the gaol and the asylum were synonymous terms.

For nearly twenty years I have been advocating the colony system, not only because the system is less costly and that additional accommodation can be provided more easily, but because, carried out on common-sense lines, it is better for the patients, and they are happier in more home-like surroundings than they are in the great pavilion asylums. I agree with my friend Dr. Spratling that "the home instinct, the love of home associations, and the desire for pleasant and sympathetic companionship, are the last of the natural desires

to die in a people who suffer from mental enfeeblement or decay through chronic and far-reaching diseases." (2) Home, with all its sacred associations, we cannot provide, but if we adopt all that is best in the methods of other countries, then, in my opinion, great as has been the improvement in the past, we shall see still greater in the future. Without increasing the burden of the ratepayers we shall be able to provide more homelike and therefore more comfortable accommodation for our patients, to carry out the doctrine preached by the epileptic apostle of old, *viz.*, to "comfort the feeble-minded."

(1) *The Insane—their Treatment, Commitment, and Detention.* W. W. Godding, M.D., Washington, D.C.—(2) *Epilepsy and its Treatment.* W. P. Spratling, M.D.

DISCUSSION

On the Papers read by A. HELEN BOYLE, M.D., and JOHN MILSOM RHODES, M.D., at the Annual Meeting, July 21st, 1905.

Dr. CARSWELL (Glasgow) wished in the first place to thank Dr. Helen Boyle for the very kind reference she had made to the work of himself and colleagues in Glasgow. It might possibly create some surprise in the minds of his English hearers to be told that in Scotland they had been able to introduce and carry out the scheme to which reference had been made without any special legal sanction other than the existing statutes. They had tried to do what appeared to be a right and needful thing, and then had discovered that the Lunacy authorities were animated by the same desire, and therefore there were no difficulties. The authorities had placed no unnecessary legal difficulties in their way; indeed, there had been hearty sympathy and, so far as they could give it, support to the work by the Lunacy Commissioners. The Glasgow parish is a Lunacy District, and the Parish Council is the District Lunacy Board. The Inspector of Poor, who is the statutory officer for receiving applications on behalf of persons supposed to be of unsound mind, is also Clerk to the Lunacy Board,

Dr. ROBERT JONES asked whether Dr. Carswell would at this point explain the meaning of "Lunacy District" and "Lunacy

Board." Did the Lunacy District mean that there was a Lunacy Commissioner who had power over that district?

Dr. CARSWELL, continuing, said he thought the terms were well understood. The whole of Scotland is divided into Lunacy Districts, and each has a Lunacy Board, which in the majority of cases is elected by the local bodies in the district, Town Councils, and County Councils. In respect to the Glasgow parish, and also in respect to the Govan parish, a special provision had been made whereby those areas were constituted Lunacy Districts, and the Parish Council was the Lunacy Board of that district. They had an estimated population in Glasgow parish of 609,000. Roughly speaking, some 90 *per cent.* of that population were living in houses of one, two, or three apartments. There was no necessity for him to detail the figures in relation to the one, two, and three apartments separately, but a large proportion were in one-apartment, while the majority were in two-apartment houses. Those who knew Glasgow were aware that they were tenement houses. The District Board had two asylums under its care, and Glasgow also went in for boarding-out; and between the two asylums and the boarded out-patients there were something over 2000 patients under official care. During the year 1904-5, 1027 applications were made to the Inspector of Poor on behalf of persons supposed to require asylum care. It was obvious that so large a number of cases provided material for a process of sorting out. That could only be done by two methods—first, by a careful medical examination of each case as the application was made, and by the provision of hospital care for the early and transient mental cases. Practically, that was what they had tried to do in Glasgow, and their experience had shown that a considerable proportion of cases which presented mental symptoms did not require asylum care, but could be treated successfully in hospital. It might be asked, what was their legal position? He did not know that they had any legal position. They had adopted the method of doing the right thing first, and asking legal sanction for it afterwards. [Dr. WHITE: I suppose that is the Scottish method?] Yes, it was the Scottish method, as Dr. White pointed out, but it had been successful, because Scotland had been blessed with an ideal Board of Commissioners in Lunacy (Hear, hear). He could not tell how much they

owed to the sympathetic but non-official attitude of the former and the present Commissioners. Nothing but kindness and interested sympathy and encouragement had been received from them all through. The cases which were sent to the mental hospital were admitted in the same manner as patients are admitted into a parochial hospital—that is to say, they were not placed under any form of lunacy certification. By arrangement with the Local Government Board, under the rules of the hospital the period of residence was limited to six weeks. At the end of six weeks it was necessary to discharge the patient somewhere or other. He must either be sent back to his friends, or discharged recovered, or he must be certified and sent to an asylum, or boarded out, or otherwise disposed of under the Lunacy Statute.

Dr. BEDFORD PIERCE : If he wishes to leave before, what happens then ?

Dr. CARSWELL said the patient had perfect freedom of action ; there was no power of detention whatever. Patients were not detained against their will. In certain cases consent could not be given by the patient, *e.g.*, in the case of a person who was stuporose, and who did not know where he was when brought into the hospital ; he was as voluntary as a person found on the street in a stuporose condition could be voluntary when taken into an infirmary. But the great majority of the patients knew where they were going, were told where they were going, and were asked if they had any objection to go. In the case of a patient suffering from distinct insanity, in which the patient insisted upon leaving, and where it would be unwise in the public interest to allow him to leave, he was, of course, certified and removed to an asylum. A remark was made in the papers read as to the difficulty of keeping the patients employed. He did not think that was quite accurate. In the hospital no attempt was made in that direction ; they did not take in patients who required that line of treatment. Those who required to be kept trundling a wheelbarrow, or using a spade, or anything of that sort, seemed to be fit cases for an asylum. Such a case was at once certified, and sent to an asylum. It was the kind of case which required medical and bed treatment which was taken into the mental hospital, and there was no difficulty about the fact that the hospital was

situated in the centre of a populous district. It must be remembered that the period of residence was short.

Dr. ERNEST WHITE : What about fresh air and exercise ?

Dr. CARSWELL said the hospital was situated on a restricted site, and was really a part of a general hospital for ordinary cases ; it was a separate pavilion, and the architect, Mr. Tiltman, of London, had so contrived to place the lighting and ventilating arrangements that the wards were bright, cheerful, and well aired. There was an outer court, in which the patients could have a walk ; but as the period of residence was not more than three to four weeks, the question of exercise and out-of-door employment did not arise in that connection any more than it did in the case of any of the large infirmaries or hospitals in the centre of London for ordinary medical cases.

On reference to Table I, it would be seen that of the 1027 cases reported to the Inspector of the Poor last year as lunatics, there were removed direct to the asylums 449 cases. There were treated in the Mental Hospital, and afterwards certified insane and removed to an asylum, 134 cases. In all, 583 cases sent to the asylum out of 1027 applications.

Dr. ERNEST WHITE : Within a period of six weeks ?

Dr. CARSWELL : Yes, practically in every case ; there had been several patients who were discharged and subsequently readmitted, and the two periods during which they had been cared for ran somewhat beyond the six weeks. There were treated in the hospital during the year 502 cases. Of these, 213 were discharged recovered, 95 were discharged relieved.

Dr. ERNEST WHITE : What becomes of those relieved ?

Dr. CARSWELL replied that those relieved were sufficiently well to be sent home to their friends, or sufficiently recovered from their mental condition to be suitable for care in the ordinary wards of a hospital. Thirty cases died, and, as already stated, 134 were removed to asylums. He considered that those figures justified the general proposition with which he set out—that in a population such as that in Glasgow there must be a sufficient body of cases which came as reported lunatics who, on examination, and on suitable treatment being provided, could be adequately cared for otherwise than as lunatics in asylums.

Dr. ERNEST WHITE : Those admissions do not tally with the admissions on the first page ; they are a different selection.

Dr. CARSWELL pointed out that they were the same cases ; 583 were admitted to the asylums, and 502 to the mental hospital, of whom 134 are included in the 583 admissions to asylums.

Dr. ERNEST WHITE said that in one the admissions were given as 583, and in the other as 502.

Dr. NEWINGTON said there was really no discrepancy. Of the admissions to the mental hospital, 134 were removed to the asylum, 338 discharged, and 30 remained under treatment, making the total, as stated, 502.

Dr. CARSWELL said he thought the figures were correct. A table is annexed showing the forms of mental disorder. There were 108 cases of delirium tremens, and in those he had included all cases of mental disorder caused by alcohol. They were grouped as delirium tremens for convenience, but many of them were not typically so at all ; many were cases which would have passed as melancholia. Some were cases of acute mania, some were mania *à potu*, and some could hardly be described by any of those terms. There were 22 cases of non-alcoholic delirium, 78 of excitement. He had endeavoured to avoid using asylum terms. If those cases had gone to an asylum they would have been called mania. Some were cases of recurrent mania, and it was well known that a recurrent case frequently ran a short course. Those cases could well be treated in the hospital. To show that the patients were not there against their will, they, in many cases, came after discharge and reported themselves from time to time. He recently had a young man who had been twice in the asylum and once in the hospital for such recurrent attacks, with short periods of excitement. He came again a few weeks ago on the first indication of something wrong, knowing he was in for another attack. He received advice and treatment, was treated at home, and passed through another slight attack without even coming into the hospital. Cases of depression numbered 89. There were 81 cases of mental confusion, and 8 others were puerperal. Stupor numbered 14 cases, hysteria 9, epilepsy 21, various forms of cerebral disease 6, these including tumours, meningitis, etc. There were 8 cases of general paralysis, 17 of dementia, 14 of delusional states, and 27 of various other forms, making a total of 502. Of these, there were discharged recovered 213,

relieved 95, and died 30. The recoveries showed 61·4 *per cent.* of the cases admitted. There were removed to the asylum 134, and 30 were still under treatment when the return was made. He had also thought it well to give the re-admissions. There were 48 re-admitted in the course of the year, so that the number of persons (as distinct from cases) admitted in the year was 454, and the number of persons discharged, recovered, and relieved was 265, being 58·3 *per cent.* The average period of residence in the hospital came out as follows : Cases recovered, 21 days ; cases relieved, 26·6 days ; cases died, 16 days. He submitted, therefore, that that was a record of work done which justified the establishment of that hospital (Hear, hear), and he ventured to say it should give pause to even the Parliamentary Committee in their present attitude towards the question of the hospital care of the alleged lunatic in large centres of population. He was not dealing with the case of country districts at all ; that was quite a different problem. But in large centres of population, such as Glasgow and London, there was need for such mental hospitals. He had not yet established an outdoor mental clinique, but hoped to do so shortly, and to obtain the co-operation of the medical practitioners in the district, so that they might send to the hospital cases which seemed to be manifesting early mental symptoms. Medical men whose cases were under treatment in the hospital were invited to visit and follow up their cases and take an interest in them. It was hoped thereby to get into closer touch generally with the profession in endeavouring to ascertain those indications which seemed to point towards early mental disorder, and to get them brought under observation, systematic study, and treatment.

Dr. DOUGLAS asked how many patients Dr. Carswell could take in at a time, and whether he would give some rough idea of the hospital.

Dr. CARSWELL replied that the hospital had 50 beds, *viz.*, 25 male and 25 female.

Dr. THOMSON asked what kind of nursing the hospital had. Were they asylum-trained nurses or purely hospital-trained nurses ?

Dr. CARSWELL replied that a female nurse was in charge of both wards. She held the Medico-Psychological Association nursing certificate, and was also a highly-trained surgical and medical nurse. There were two male nurses in the male ward,

acting under her instructions, and two female nurses in the female ward. A similar staff, with the exception of the charge-nurse, was on duty at night. The lady who took the charge-nurse's place at night was the night-superintendent of the general hospital.

MENTAL HOSPITAL, GLASGOW PARISH. Year ending May 15th, 1905.

TABLE I, showing how the applications made to the Inspector of Poor (Clerk to the Lunacy District) for the removal of persons supposed to be of unsound mind were disposed of after medical examination.

Certified insane and removed to asylum.	M.	F.	Total.	M.	F.	Total.
Removed direct to asylum	250	199	449			
Treated in mental hospital and afterwards certified insane and removed to asylum	69	65	134			
Total certified insane and removed to asylum				319	264	583
Not certified insane—treated in hospital.	M.	F.	Total.			
Discharged recovered	125	88	213			
" relieved	60	35	95			
Died	18	12	30			
			203	135		338
Otherwise disposed of, <i>i.e.</i> , not certifiable; treated at home, applications withdrawn, etc.			47	29		76
Remaining in hospital May 15th				14	16	30
Total applications				583	444	1027

TABLE II, showing Admissions and Discharges.

Admitted:	M.	F.	Total.	M.	F.	Total.
Delirium tremens	81	27	108			
Delirium (non-alcoholic)	17	5	22			
Excitement	33	45	78			
Depression	47	42	89			
Mental confusion	43	38	81			
" " (puerperal)	—	8	8			
Stupor	10	4	14			
Hysteria	1	8	9			
Epilepsy	10	11	21			
Cerebral disease	4	2	6			
General paralysis	6	2	8			
Dementia	11	6	17			
Delusional states	5	9	14			
Variou	18	9	27			
Total cases admitted				286	216	502

Discharges :

	M.	F.	Total.						
Recovered	125	88	213	} Being 61·4 per cent. of cases admitted.					
Relieved .	60	35	95						
Died . . .	18	12	30						
Certified insane and removed to asylums				203	135	338			
				69	65	134	272	200	472
Remaining May 15th							14	16	30
Re-admissions during the year				27	21	48			
No. of persons admitted				259	195	454			
" " recovered and relieved				159	106	265			
Being 58·3 per cent. recovered and relieved of persons admitted.									
Average period of residence in hospital :									
Cases recovered				21·0 days.					
" " relieved				26·6 "					
Died				16·0 "					

Dr. TOOGOOD said he desired to thank the Association for enabling him—and through him the medical officers of Poor Law Institutions of London—to express the views which they held on the question of the treatment of incipient lunacy, before the members. He regretted to say that there was no distinct similarity of treatment of cases of incipient lunacy in London. In the majority of cases the alleged lunatic was brought either through the medium of the relieving officer, without any medical examination whatever, or, if the relieving officer was not satisfied, then, after a magisterially directed examination, into the infirmary or workhouse. Unfortunately, that was not so in every case, because the magistrate still had the power to send a case direct to an asylum without that patient having been inside an institution at all prior to going to an asylum. It seemed to him it was a distinct blot upon the procedure that a case should be taken directly out of the house of the patient and sent away to the asylum without being examined by a medical man who had special experience in lunacy. The present method of procedure adopted in cases where the alleged lunatic could not be adequately looked after at home was as follows : The relieving officer, either upon his own authority in obvious cases of mental derangement, or upon the direction of a Justice of the Peace after a medical examination in less apparent cases, conveyed the alleged lunatic to a workhouse or infirmary for detention until the Justice decided whether the case was fit to be discharged, or was to be trans-

ferred to the county asylum. Opinions as to the legal extent of that preliminary detention varied. Some authorities regarded seventeen days as the limit, while others maintained that it could be extended to thirty-one days. The London County Council proposed to abolish the system of preliminary detention in the workhouse or infirmary, and to take the cases directly into the asylums which were to be built in London, and which were to be called receiving-houses. He regarded the Lunacy Act as a perfect chaos in respect to the power of preliminary detention. Local Government law officers had given the opinion that a man could be detained for a certain period—thirty-one days, he thought. But he (Dr. Toogood) did not see that detention could legally exceed seventeen days. There were three days on the order of the relieving officer, and within those three days a Justice should see him, and he could order the patient to be detained another fourteen days. But there was another way of looking at it, because another section of the Act said that the relieving officer had to give notice within three days, and the Justice had to see the case in three days. How the person was to be detained during those three days he did not know. There had been no case of the kind which had been judicially decided and which could therefore be quoted. The mental wards of the infirmaries and workhouses were used for cases which one would not think of calling "lunatic" or "alleged lunatic." There were such cases as epileptics who were temporarily off their balance, many old demented, and cases of acute delirium arising in patients who had been treated for some bodily disease in the ordinary wards of the infirmary. Another point to be remembered was the growing unwillingness of the London County Council and the Metropolitan Asylums Board to receive cases of senile dementia into their asylums. That had been mentioned by one of the previous speakers. He could understand that asylum men did not want those senile demented. But what was to be done with them? They could not be put into the sick-wards of an infirmary, nor in the wards of an ordinary workhouse. A woman of 70 or 80 years of age might be fairly docile during the day, but at night-time she would become restless and noisy, would prowl up and down the ward, without recognising her own bed, and get into another patient's. These were unfit cases to have in ordinary sick-wards in an infirmary, which

were practically hospital wards ; and it was obvious they were not fit to be in the ordinary wards of a workhouse. He admitted that the lunatic asylum was not the proper place for them either, and the case was not sent to the county asylum unless there were some active delusions, or the patients were violent, or destructive. The other cases should properly go to the Metropolitan Asylums Board places, which were really established for them. Yet a tremendous fuss had been made by the Metropolitan Asylums Board, on the complaint of the medical officer at Caterham Asylum, against the sending of those senile demented down there. That gentleman appeared to forget that Caterham Asylum was established for dealing with those cases. It was a workhouse designed for that class of case. The Report of the London County Council, published in 1897, stated that cases suitable for workhouse care had come to county asylums. He could not dispute that, because he did not know, but it went on to say that cases of acute lunacy requiring immediate treatment had been kept back, perhaps to the utter extinction of all hope of cure. He was quite sure that none of the medical superintendents coined that phrase. He regarded the whole Bill as a clerk-constructed one, trotted out for the aggrandisement of the clerical part of the staff. At the very time they framed that Bill they could not find vacancies for over six weeks after application was made for them. The adoption of the principle involved in the assertion in the Report to which he had alluded would necessitate the retrograde step of keeping the chronic harmless lunatic in the workhouse, a proceeding which had been justly condemned for many years, and against which current opinion was very firm. He had statistics to give for the last three years. In 1902 out of 8076 cases of alleged lunacy admitted to Metropolitan infirmaries and workhouses, 3920 were sent to lunatic asylums, and 3560 were discharged cured. In 1903 the figures were 8004 admissions, 3792 sent to asylums, and 3443 discharged cured.

Dr. CARSWELL asked whether the patients were examined in their own homes.

Dr. TOOGOOD replied in the negative. Practically they came in on the order of the relieving officer. In 1904, 7654 were admitted, 3716 were sent to asylums, and 3155 were discharged cured. He had the figures given for the various districts, but they varied very much, and it would be better to

speak only of his own infirmary. In that institution, roughly, since it was established, two thirds had been discharged cured, and only one third sent to asylums. That was in Lewisham.

Dr. DOUGLAS asked whether the discharged cured were previously in the infirmary.

Dr. ERNEST WHITE asked whether they were discharged in seventeen days, or, at any rate, within twenty-eight days. Two thirds of the cases cured was a high rate.

Dr. TOOGOOD replied that that was the period, though one might keep them a little longer. The reason for the large percentage of cures was that the mental state was often merely a symptom arising from the bodily condition, and the mental symptoms cleared up when the bodily condition was attended to. It might sound egotistical, but Poor Law medical officers thought that they, or a body of men having a similar experience, were the best men to deal with that class of case. In such a condition what was required was a practitioner of wide experience, and, practically, that wide experience was only found in a man who had charge of a large general hospital, such as those Poor Law infirmaries were. An enormous number of cases passed through the hands of the Poor Law medical officer. Of late years the class of men appointed Poor Law medical officers had very much improved. Notwithstanding the poor rate of pay, a better class of man was now appointed. Men with the experience of the Poor Law medical officer were better qualified to look after the cases now under discussion in their early stages than those who had devoted a large number of years simply to the mental aspect of the case. The fact that each infirmary or workhouse had but a few mental cases at any one time enabled an amount of individual attention to be bestowed on each case which would be impossible in large receiving-houses unless a large medical staff were to be engaged. Another point was that the nursing of the mental cases was, in Poor Law infirmaries, undertaken by trained nurses, as distinct from asylum attendants. He believed he was correct in saying that all the Metropolitan Poor Law infirmaries were training-schools for nurses, and those nurses were examined at various stages of their career, and afterwards received their certificate from a member of the staff of a London hospital. Thus there could be no doubt that those nurses received an exceedingly good training, both in medicine and in surgery, in London infirmaries. There

were also mental nurses in those institutions. He noticed the London County Council claimed as one of the reasons why the lunatic should be handed over to it that its officers would be better able to determine the social position and settlement of the patient than the present relieving officer. That was inherently absurd, because the resident relieving officer, with his local knowledge, must have greater sources of information at his command. The cost was, of course, a point which appealed to the man in the street very much more than arguments. It was understood that the London County Council proposed to provide accommodation for 1000 cases by building four institutions containing 250 beds each. The cost of the buildings alone would probably work out at not less than £300 per bed.

Dr. ERNEST WHITE: The buildings would probably cost about £200,000 each.

Dr. TOOGOOD agreed that the total cost would be close upon £1,000,000. Furniture would be a large item, and there would be an ambulance service, ambulance attendants, male and female lunatic attendants, inquiry officers, clerks, and a medical staff. It must not be forgotten that this large expenditure would be additional, and that there would be no corresponding diminution of expense in the establishments of the Boards of Guardians, because, with the exception of the actual cost of the rations of the lunatics and the expenses incurred on the removal of the cases to an asylum, the whole care of the insane patients was undertaken by the ordinary staff. The relieving officer did it as part of his ordinary duties, and so also did the ambulance attendant, the medical officer, and the nurse. A great deal of cant had been talked about the "stigma" of lunacy. The Council could call the proposed institutions "receiving-houses" or whatever they pleased. There was an old West of England proverb which said that because kittens were born in an oven they were not necessarily loaves of bread; and if that saying were applied the other way round, it would be fairly obvious that the cases which were sent into those places, although they might not be regarded by the London County Council officials as lunatics, yet they would be lunatics in the eyes of the general public, and those houses, whatever name might be given to them, would be lunatic asylums. It was impossible to over-estimate the disadvantage under which a patient

was placed when he was known to have been put away as a lunatic. At present there was no stigma attached to going into an infirmary. The stigma of pauperism which existed at one time was practically no longer thought of. Speaking of his own infirmary, he would be sorry to class even a small proportion of the people who entered there as actual paupers. A patient taken to an infirmary for some mental trouble was generally regarded by the public as one who had gone there for ill health ; no odium rested upon him, and the patient did not object to his detention in any infirmary. But a keen horror was felt at going to an asylum. The necessity for the attendance of the patient's friends at the magisterial examination, and the customary visiting of the patient, would involve loss of time and cause considerable expense to the alleged lunatic's wife, husband, or other relations, who might have to walk half across London instead of being within very easy access, as at present. All those cases would be withdrawn from the supervision of the Guardians, who, by the keen interest they took in the welfare of the cases coming from their respective districts, and by their visits to the mental wards, exercised a very beneficial influence upon the treatment of those unfortunate patients, and also insured that there should be no undue haste in hurrying them off to an asylum. The proposal to allow the body which, in the first place, certified a person to be a lunatic, to have the power of indefinite detention of that lunatic destroyed a very valuable safeguard. Now, before the case was sent to an asylum the medical officer was required to submit that patient to a very rigid physical examination, to place his remarks in writing, and deliver that to the clerk of the Guardians. He then handed the case to the relieving officer, or any other officer who might be appointed, to take it to the asylum. When patients arrived there they were submitted to an exceedingly rigid examination, and the record of it was sent to the clerk to the Guardians. Those two medical reports were then compared. He had been asked by his Society to point out the absence of any valid reason for altering the present system, which worked exceedingly well. Poor Law medical officers suggested that if any modification were required it was in the direction of giving statutory power to the Guardians to enable them to detain suitable cases for a longer period than was now possible, and so prevent a further number of cases from being

stigmatised or classified as lunatics. It occurred to him that if the London County Council were either to give up one of their asylums and make it a house to which all cases of lunacy could be sent, or would build another asylum, to which the cases, after having passed through the hands of the Infirmary authorities, could be sent for classification, they would be doing something sensible. Because, after all, the net into which lunatics were gathered was a very wide one, and it had very wide meshes. Poor Law medical officers did not profess to be alienists, but they claimed to know sufficient about lunacy to say whether a case was recoverable in a short time or whether it was not. If the London County Council were to build a house where all the cases sent by Poor Law officers could be sifted by their medical men, and then sent to the asylums devoted to the particular class of case, it would be doing a useful work, and that would not be so expensive as the scheme now proposed. He thanked those present for their kind attention.

Dr. NATHAN RAW said he had listened with very great pleasure and interest to Dr. Carswell's speech. The figures given by that gentleman were very astonishing, and he could absolutely substantiate them from his own experience. He had charge of a large Poor Law infirmary, which he believed was the only one in the provinces separated from the work-house. It contained 900 beds, and there was accommodation for 150 lunatics, *viz.*, 75 male and 75 female. The figures which he desired to put before the meeting were those relating to the cases which had come under his own experience during the last eight years. There had been admitted in that time 6200 alleged lunatics, and of that number 3050 had been sent to asylums, many of them being obviously cases for an asylum at once. The others were sent to an asylum, as they had not recovered after the usual period of detention allowed by the Act. Of that number 2580 were discharged recovered. The remainder were discharged to friends or died. His experience showed that of cases of temporary mental disorder—he would not classify them as insanity—which were sent to them, 50 *per cent.* would recover in the usual period of twenty days. Therefore that was a very important basis on which to work, and one which would afford guidance in the treatment of incipient mental disorder. He quite agreed with Dr. Toogood,

as a Poor Law medical officer, that everything was provided in the Poor Law at present for the treatment of lunatics in the early stage ; but what he (Dr. Raw) thought 'ought to be remedied—and he believed would be remedied in the next few years—was the making provision for those people who were not lunatics. At the present time a large number of people were sent into those Poor Law institutions and workhouse infirmaries who were not insane at all—people suffering from the delirium of pneumonia, or of typhoid, or of phthisis, or from traumatic insanity, or acute alcoholism, as to which it was a moot point whether it should be regarded as insanity or not. He did not believe it to be insanity. And the saddest class of all was the temporary puerperal insanity, which was so fairly common in large cities. In large centres of population, like those of Liverpool, Glasgow, Manchester, and London, there was no provision for those cases arising among the working classes or the small tradesmen class who were not paupers. There was no place to put those cases which were dangerous for the moment, except in the workhouse infirmaries. They could not afford to go to a private asylum, and no private asylum would take such patients at the fee they could afford to pay. The result was they had to be sent to the workhouse infirmary or the workhouse, places for which they were not intended. The Lunacy Act was intended strictly for the treatment of pauper patients. Of that number about 15 *per cent.* were patients who were able to pay, and who were in fairly reasonable circumstances—£100 to £150 a year—but who could not afford to pay the ordinary private asylum charge. He agreed that the present system of treating strictly pauper cases in the workhouse or workhouse infirmary under the Lunacy Act, Sect. xx, was perfectly satisfactory, and he was sure no County Council could improve upon that. But it was only for the cases which were lunatics evidently. It was not necessary to put cases of temporary mental disorder into a workhouse or workhouse infirmary, and it was not necessary to place them in a lunatic asylum. Therefore what he would advocate, and what he thought might fairly be considered by the Association, was that in all large centres there should be a mental hospital—not an asylum, or detention-house, or anything to do with it. (Hear, hear.) Such an institution should be quite distinct from the Lunacy Acts, and

dissociated from them. The mental hospital, which, after all, was the most urgent necessity of anything he knew of in the profession, would intercept all the temporary forms of mental disorder, such as delirium tremens—possibly some of those present did not think that was worth intercepting, though he certainly did—puerperal insanity, traumatic insanity, the delirium of many physical disorders such as acute fevers; that mental hospital would intercept cases which need never go near an asylum nor near a workhouse. If some distinction were made between the genuine lunatic, who obviously ought to be in an asylum, and the person suffering from a temporary phase of mental disease, the whole question would be capable of some solution. At present a controversy seemed to be raging as to whether a Poor-Law institution or the county asylums were the better fitted to treat insanity. There was no question that by far the better place was the county asylum; that was the place, in his judgment, where all lunatics ought to be treated. The other question, namely, the stigma attaching to a man or woman certified to an asylum, was not by any means a sentimental one. In Liverpool, after observing many hundreds of cases, his experience was that if a workman or a clerk had been certified and sent to an asylum he experienced the greatest difficulty afterwards in getting employment. People would not take such a man, because, they said, he had been a lunatic. But in very many cases he had not been a lunatic. He had perhaps been suffering from delirium tremens; he got drunk and became delirious, and was sent into an asylum, and in many instances lost his employment afterwards. That would be obviated by treating such people in a mental hospital. He had listened with very great pleasure to the remarks which had been made on the subject, and he felt sure the Association would give every assistance it could to improving the present condition and treatment of early cases of insanity. And if it were viewed strictly and impartially and away from all conflict between the Poor Law officers and the asylums medical officers, he was sure it would be possible to arrive at some satisfactory conclusion.

Dr. ROBERT JONES said he would like to be permitted to dissociate himself from Dr. Toogood's attack upon the London County Council. He did not think it was desirable to attack any public body, but to give it credit for motives which certainly did find a place in the minds of a very large number of individuals constituting

that body, who had nothing to gain personally from their public work—and everybody knew that members of the London County Council devoted a considerable amount of time to public work. He (Dr. Jones) was himself an officer of the London County Council, and he felt some of the remarks which fell from Dr. Toogood to be undeserved. In this matter of providing accommodation for mental cases, one had not to consider the various public bodies concerned, but to do the best thing possible for the patients. He wished first of all to thank Dr. Boyle for her very interesting paper, and he hoped her success in establishing a mental hospital in Brighton would be fully attained. Miss Boyle was one of those exceptional persons who succeeded in doing what she attempted to do, and it was very encouraging that members of the profession who had spent so much time in obtaining information at first hand were also disposed to apply that knowledge and experience for the benefit of sick humanity which form of sickness not only afflicted but stigmatised, and very often through no fault of their own. With regard to Dr. Carswell, no one was a greater admirer of that gentleman's work than he was; Dr. Carswell was an enthusiast, and very eager; but he did not think Dr. Carswell was very just to the asylum side. He declined to use terms which were current in asylums, but called the same conditions that occurred in asylums by other names. He (Dr. Jones) thought it was very desirable to clear one's mind of cant, and not to assume a monopoly of the power of healing; it would also be well not to have two names to express the same thing, unless Dr. Carswell had some special object in avoiding the use of terms indicating mental states whose meaning was quite clear to asylum physicians. If Dr. Carswell desired to avoid the Scottish Lunacy Commissioners by the adoption of a new phraseology, then he (Dr. Jones) had nothing more to say. He would take a short analysis, by which it would be seen that the asylums did not come out at all badly. Dr. Carswell said that 1027 cases had been either admitted or applied for admission to his mental hospital; at any rate, that number of applications had passed through Dr. Carswell's hands. Taking the admissions, the recovery rate came out at 24 *per cent.* That was a rate which did not compare very well with that of asylums, certainly it was not much in front of the asylum rate; it was a little behind some asylum rates.

Dr. CARSWELL said that was not so; his figures had been misunderstood.

Dr. ROBERT JONES said that the Lunacy Commissioners' Report gave in 1885 a recovery rate of 41.99 *per cent.*—*i.e.*, recoveries upon admissions. That was the highest. In 1902 the recovery rate was 36.13 *per cent.* But Dr. Carswell's figures, 213 discharged recovered out of 1027 admissions, gave a rate of a little over 20 *per cent.*

Dr. CARSWELL said Dr. Jones would remember that he (Dr. Carswell) did not give the asylum recovery rate of those cases. That comparison was not given in his figures, because of the cases sent to the asylum there were 30 *per cent.* to 40 *per cent.* discharged recovered.

Dr. ROBERT JONES, continuing, said that took him on to the rapid recovery rate of cases which were brought under treatment early; and that showed the very great importance of having those patients in some sort of institution where they could obtain early treatment. It was well known that of those who recovered nearly 70 *per cent.* did so in the first month, and the statistics of asylums in this country and America demonstrated this to be so. Dr. Carswell referred to certain cases, such as the stuporose, and stated that he had been able to lower the rate of occurring insanity between the ages of 15 and 45 to 8 per 10,000; but he did not say how he had accomplished that. Was there any special virtue or power whereby he had obtained a higher recovery rate than would be the case if these cases went direct into an asylum? The contrast in the present discussion was really between workhouses and asylums.

Dr. CARSWELL said that was not in reference to the recovery rate at all.

Dr. ROBERT JONES said he did not quite appreciate the superiority assumed over asylum treatment, and he thought it very much better to call a definite condition always by the same name. The method of presenting the case adopted by Dr. Carswell was a very clever dialectical trick—applying new terms to designate something apparently new, and which had not previously been discovered in order to support and demonstrate good results. Certain cases of mania and melancholia as called in asylums were termed by him "excitement," "depression," "stupor," and so on. No doubt there were many cases of insanity

which were only temporary, but nevertheless they were real insanity. He had repeatedly heard it stated by most competent pathologists at *post-mortem* examinations, "This patient had no right to be here at all; he was only suffering from the involution of ordinary senile decay"; or "He is only in the asylum because his arteries are a little calcareous." Of another patient it would be said he had no right there because he was suffering from cerebral tumour, and ought to be treated in a hospital. He (Dr. Jones) wished to say that those who treated such cases did not enter so much into the cause as to the result and the treatment. Insanity was a question of conduct; they must be satisfied that the conduct of the individual was of such a kind that it would not be tolerated by society, as society formulated its own conventions and its own methods of protecting itself. He did not concern himself with what the cause of a case of insanity might be, when the necessity for certifying actually occurred, and whatever the cause it was urgent and necessary that the case should be segregated for suicidal or homicidal propensities. It was a case of insanity and not of pathology. He would, however, go a great deal further, and say that temporary or early insanity should be treated in such a way that the patient should not feel that any very great stigma—which Dr. Nathan Raw said was not a sentimental affair—attached to him. For that reason he was very much in favour of a mental hospital. With regard to the hospital as designed by the London County Council, he did not feel disposed to criticise it, being an officer of that Council, and he would leave it absolutely without remark. He was very glad the discussion had taken place, because all sides of the question had been dealt with, and in arranging the matter, as Secretary, he had been very deliberate in bringing about the full and adequate ventilation of this great question. He had learned a great deal from Dr. Toogood and from Dr. Nathan Raw, and it could only do good to hear the views of those like Dr. Carswell and others, who had given the question full attention from an aspect which many of them, as asylum physicians, had not the opportunity of seeing.

Dr. ERNEST WHITE said that he did not yet understand the exact nature of Dr. Carswell's institution; it would be called a poor-house in Scotland. It was neither a hospital nor an asylum, but appeared to correspond exactly with the institutions of Dr. Toogood and Dr. Nathan Raw. And the results agreed very closely in all the three cases, and those results showed what excellent work was being done in the treatment of cases of insanity in the incipient stage among the poor, and among those who, as Dr. Toogood said, were not quite poor. It showed that the Poor Law system worked most efficaciously. The members of the Association took exception to the scheme of the London County Council for erecting, at great cost—some £200,000 to £250,000 in each case—the four so-called "reception-houses" (which were in reality detention-houses, for there was a clause by which persons could be detained for six weeks, and then on the request of two members of the Committee for additional periods of three weeks each, which could be continued indefinitely). It was in reality a diversion of the work of the Lunacy Board, an upsetting of the proper asylum treatment; it was the old "hospital for the insane" in London, in disguise. (Hear, hear.) That was the essence of the objections urged against the scheme, which objections came before the meeting yesterday. Members wanted to see the limits of detention brought within due bounds. He had interrogated several of the speakers that day, and all, except Dr. Carswell, agreed that twenty-eight days would be sufficient for those cases. Dr. Toogood thought twenty-eight days would be quite enough, and he believed Dr. Nathan Raw fixed the period at twenty days. That would not be taken exception to by asylum officers. It was well known that there was now in London great concern felt by the Poor Law authorities with regard to the expenditure of a million of money; and rightly so, and he did not think there was any possibility of the measure passing in its present form. He (Dr. White) had the honour to be on the Building Committee of the new King's College Hospital, and he had been agitating there for certain beds to be allotted for cases of incipient insanity. But his agitation had been in vain, there was an aversion to any patient with mental symptoms being received in a general hospital, and he believed that would be the case throughout the length and breadth of England. He was now advocating the establishment of an Out-Patient Department at the new hospital for the treatment of cases of incipient insanity. This, if adopted, would afford good clinical instruction for the students attending the hospital.

But he feared that scheme would not be successful. Another of the Association's objections to the London County Council scheme, as built upon the experience of Glasgow, was the question of ground surrounding the hospital, and the exercise which all considered that mental cases should have and which was so necessary for their recovery. Dr. Carswell mentioned that there was a small airing-ground attached to his particular institution in Glasgow, but that the patients seemed very happy indoors, in well ventilated wards. That, however, was not in accordance or conformity with the asylum treatment of mental cases. Even acute cases one usually took outside for sun-baths. Dr. Toogood's suggestion about a classification asylum was a most excellent one, and met the case for the poor. There were seven or eight asylums in London, and if reception-houses were going to be used to classify the cases, why not take one of the existing asylums for that purpose, and turn it into a classification asylum for all cases received? That was already being done by several large county authorities. The cases were classified at one asylum and afterwards sent to the different institutions. With regard to mental hospitals such as Dr. Nathan Raw advocated, he thought all members of the Association were of opinion that they were essential. There was a large class of patients who were not poor, and who did not care to come to the Poor Law infirmaries, and there should be some hospital into which, for a small payment, they could be received as paying patients.

Dr. HAYES NEWINGTON desired to say one thing in particular about the discussion which was in progress. All the experiences and suggestions which had been put before the meeting were in reference to large centres of population; it would be impossible to have legislation on this subject that would apply equally to large cities and to scattered rural districts, such as the one in which he lived. Anything like treatment on the lines of a hospital, to the exclusion of the asylum, would be impossible, from circumstances of distance, and so on. He was in accord with Dr. Carswell in objecting to any special institutions for chronics. He had been carefully into the matter. The plan if adopted in ordinary counties would not save very much, but it would create tremendous social and other difficulties. It was one thing to have a hospital for treating acute cases and a main building on one estate; it was quite a different matter having two separate asylums on two separate estates. Such a thing would be hopeless in rural counties. As to the extension of time and other matters to which Dr. White had referred, Dr. White mentioned that he was Chairman of the Parliamentary Committee of the Association, and he (Dr. Newington) wished to remind the meeting that he was Chairman of that Committee for many years, until recently, when he resigned in Dr. White's favour, and his views on these matters were opposed to Dr. White's. He would not like it to go forth as from the Association that what Dr. White said as Chairman of the Parliamentary Committee commanded universal support. He thought that in these matters one was apt to forget one thing, namely, What was for the good of the patient before one? One was very apt to look at the matter in the interest of the rates, or in the interest of the County Asylum service, or in that of the Poor Law service. But the question to be solved in every case was, What was best for the patient? He spoke at Liverpool on the question of a time limit, and said he did not see why any limit should be placed anywhere if the treatment was likely to be successful. He adhered still to that opinion. If a case was not insane enough to be sent to an asylum, but needed looking after, why should it not remain to be looked after for six months if that time were necessary for restoration? With regard to the proposed hospital in London, he was entirely opposed to Dr. White. London had over 20,000 lunatics and eight asylums. Was it not big enough to undertake an experiment for a fractional portion of its insane? London had done such magnificent work in lunacy matters, taking it altogether, that it should be backed up in any experiment which it thought well to try. It was the only body which could try it, and nothing should be done to arrest that spirit in which a number of laymen had attacked the question of the treatment of lunacy. The same remarks would apply to what Dr. Boyle said. That lady was trying an experiment, and he wished it every success, and thanked her for trying it. If it became a success, no doubt more of it would be heard in two or three years, and if it became a failure one would equally hear of it, and be guided by the results. He thought people were rather apt to pro-

phesy and vaticinate too much in these matters. If an experiment were carefully planned and carried out properly success generally followed.

Dr. DOUGLAS said he joined the Association by favour of its members nearly twenty years ago. During that time he had heard many papers bearing on the subject now under consideration, though not quite to the same effect, and had heard many discussions, but little or nothing seemed to come of them. He hoped, however, that a stage had been reached at which something would be effected. Last year, when at the Annual Meeting, Dr. Carswell read a paper, in which most interesting statistics were given on this subject. He was surprised and much regretted that a report of this contribution had not appeared in the Journal, and he wished to draw attention to this omission. The title of Dr. Carswell's paper last year did not indicate its bearing on the present subject, but he believed it was on the question of the increase of pauper lunacy in Scotland. However, it did bear on that day's papers, on the greater curability of early cases under conditions such as those which existed at Glasgow. He could not agree with what Dr. Jones said as to the comparative curability. He understood that those conditions did not exist in England, and that last year Dr. Carswell was in doubt about the legality of his position, but that having thought it was right to do a little legal wrong in order to accomplish a great moral right, the Commissioners were willing to take no official notice of it. But he now understood that to-day they in Scotland stood on a more secure legal basis. Still, it was declared that we could do nothing of the kind in England. However, from what Dr. Nathan Raw and Dr. Toogood had said it seemed that something of the same kind was being done in this country. It looked as if those gentlemen were proceeding on the same lines as Dr. Carswell was proceeding before his special hospital or wards were built. He hoped many would take a leaf from Dr. Carswell's book. He was surprised when speaking to a Poor Law medical officer, who had an excellent practice, when he mentioned the Glasgow method, he replied, "We do it at such a place." Asked whether it was not illegal, he replied that it was, but they did not bother about that. Whether that were so or not, he hoped it would become a recognised system, as he believed it to be a good system. Medical men were apt to look at it from many points of view. As first a general practitioner, then as a physician, and now somewhat of a specialist, he (Dr. Douglas) looked at it from the broad standpoint, what was best for the patient and the community? Some asylum medical officers looked at the matter from the asylum point of view—he feared he must say so—and sometimes that was a narrow point of view. He urged that the question should be looked at from the general and public standpoint; and members must recollect that they were not only medical men, but also citizens. It was a sad memory to think of the number of Bills on lunacy reform which had been destroyed and the reasons sometimes assigned for their destruction. There were reasons which were openly stated at the dinner of the previous evening. One consideration seemed to have a tendency to wreck every lunacy Bill, namely, the absence of a pension clause. He strongly believed a pension should be granted to men who spent their lives in the service of asylums. It was a very arduous life, one spent away from their fellow-men, to a large extent, and it should be amply recognised. There were some members of the Association who did not agree with those views; they believed their own committees would act so generously that it would be unnecessary to have a minimum. He agreed that the Asylums Committees would generally so act, but he did not think the people of this country should be kept back from something which was right in the shape of remedial measures in lunacy because there was not a pension clause in the different Bills.

The PRESIDENT said he did not think Dr. Douglas' remarks were quite to the point.

Dr. DOUGLAS replied that those Bills were for remedial legislation, which would have an effect on early treatment.

The PRESIDENT read to the meeting the titles of the papers down for discussion; they had nothing to do with legislation or with tribunals. If Dr. Douglas could give any help on the subject of the early treatment of insanity the meeting would be glad to hear him.

Dr. DOUGLAS said he, of course, submitted to the President's ruling. Dr. Helen Boyle's paper interested him very much indeed, but he was still somewhat in the dark as to what kind of hospital it was. When he knew it some time ago he had

the impression that it was a private hospital, but now he understood it was not so. If it were a private institution, he had nothing further to ask. But if it were in the nature of a public hospital, he would be glad to hear some particulars as to its funds, how they were obtained, and the management committee. They were very important practical points in regard to any attempt to do the same kind of thing elsewhere. One question which exercised some of the members of the Parliamentary Committee was that of detention. He believed the period mentioned was twenty-eight days.

Dr. FLETCHER BEACH said it was fourteen to twenty-eight days.

Dr. DOUGLAS, continuing, said there was a Bill allowing for the special care and treatment of early or doubtful mental cases for six months, and it was agreed that it was desirable to pass. A similar method of treatment was in operation in Scotland, and if there were any remedial legislation on the lines which Dr. Carswell had put forward, what might, and in all probability would, be done for those able to pay would also be done for the poor, he hoped. He did not think it was a good or right thing to limit the period of detention to twenty-eight days. He would put it on the same lines as special six months' certificates. He did not see that there would be any harm in that, and if there was found to be, it could easily be remedied. Certainly six weeks seemed to be a very short time. In two or three months very many cases recovered, and it should be the endeavour to put the cases under the most recoverable conditions, and thus obviate what was not only considered a stigma but a disability affecting those who were supposed to be lunatics.

Dr. FLETCHER BEACH said he saw many of the cases under discussion at the hospital and in private, and the trouble in connection with them had been as to where the cases could be sent. They were not patients who could be certified to be insane, and yet they were cases which could not be properly managed at home. They did not belong to the pauper class, and he often wished there was a place where they could be observed for at least a month, or more if necessary, and where they could be employed and would have ample grounds in which to take exercise. For instance, there were the cases of cerebral tumour, referred to by Dr. Carswell, cases of excitement, melancholia, and stupor, which he had seen at the hospital. But the difficulty there was that they were out-patients, and no means were available of treating them beyond drugs and diet. Many members had been interested in the colonies for epileptics and imbeciles which Dr. Milsom Rhodes had spoken of, and he was glad to see that north of the Tweed the Local Government Board was more active and enlightened than in England. At Leicester, where there were a number of such patients, a workhouse was being built for them, instead of a colony. In Croydon, Kingston, and Richmond application was made to the Local Government Board to allow a colony to be built for epileptics, but the reply was that they must build a workhouse. He thought the Local Government Board required much instruction on those points.

The PRESIDENT said he had listened to many discussions before the Society, but there had not been one of greater importance than the present one, nor one which had been more ably discussed. The great point upon which all seemed agreed was the want of a place to which nervous patients who were verging on insanity could be sent. As Dr. Boyle said, so tersely and truly, insanity began before a person became insane. In the Out-Patient Department one saw cases which were just toppling over the dividing line, and one had to let them go; there was no place to which they could be sent, no place where they could be given that institutional treatment which they required. The idea of a mental hospital was good, but he believed that if it were called a nerve hospital it would be more popular with the public than if it bore a name which seemed to imply any affliction of the mind. If one said that the nerves of such a patient were all wrong, no compunction would be felt, but many people would not go to a mental hospital.

Dr. HELEN BOYLE, in replying on the discussion, said she need only touch upon two or three points which had arisen in the debate. One was with reference to the funds of the little hospital in Brighton. It had no connection with her own private means. As she had stated in her paper, it was run by the Council of the Dispensary. A dispensary was started when she first went to Brighton, and it was the governing body of that which started a small public hospital as an

additional burden on its funds. The hospital was, for all practical purposes, a charitable and public one, and there was no limit whatever as to where patients came from, what town or what part of the world. But the patients paid what they could afford, as was done in every hospital started by women in England, she believed. The expenses would be about 15s. per head maintenance rate. It was simply an ordinary house, and it was run very much as her own house was, on the family principle. The matron was an ex-nurse, who had been under Dr. Robert Jones. She had had infirmary ward experience, and was well trained all round. She had the certificate of the Medico-Psychological Association, and was certified for ambulance and nursing. A word was said about exercise, and that was a very important matter. She would not wish to refuse cases which required a good deal of exercise. There was not yet very much material to speak from, but two or three young cases had been at the hospital. One was a girl with early adolescent insanity. Practically she had no delusions, but erotic sensations of different sorts. She had been very sleepless, and had many other such signs; and to keep her in health and strength it was necessary to provide a fair amount of exercise every day. That was extremely important in any institution dealing with early mental and nervous troubles.

The PRESIDENT asked whether Dr. Boyle would take into her hospital a patient of his who could pay 15s. to £1 per week.

Dr. BOYLE replied that she would take a patient from anywhere and from anybody. It was only for females.

Dr. MILSOM RHODES, in replying on the discussion in reference to his paper, said he would have liked to have heard more said as to the best methods of building asylums, as that was a very important point. Dr. Carswell quoted his own hospital. But Dr. Carswell was in the centre of a very large union or district, whereas he (Dr. Rhodes) was speaking of large districts over the whole of England and Wales. Where there were small unions the arrangements which Dr. Carswell had in his district could not be carried out. The same gentleman quoted the Lunacy Commissioners in Scotland, but the majority of them were medical men. In England only half were medical men, and he felt that if there were five medical members and one legal member of the Commission there would be more progress in the matter. The Lunacy District in Scotland was the same as the Lancashire County Council Board; it was composed of representatives of the County Council and representatives of the boroughs. With regard to boarding out, he believed that it required either a people accustomed to autocratic Government, as on the Continent, or a people with a large sense of religious duty, as in Scotland. But the system had been abolished in Massachusetts. With regard to Dr. Toogood's remarks, he (Dr. Rhodes) was not dealing with the London County Council, and had not thought about that body. What he had in view was a larger scheme. He was not prepared to agree with the scheme of the London County Council as at present drawn. One could not do without the receiving wards in country districts. Another place could be provided and called a mental hospital, if one liked, but it would be necessary to have workhouses as receiving wards for many years to come, because in the country districts the distance to the asylums was too great to send the patients. With regard to cost something was said about a building costing £350 to £400 per bed. Colonies could be built at a much less cost than could the huge structures now being built in some places. If a committee of experts were to be appointed from the Medico-Psychological Association, he believed something very much better would be provided in the future than had been in the past.

Dr. CARSWELL said, in reply, that he had been much gratified by the discussion and by the manner in which his disjointed remarks had been received, and he desired to thank all concerned for the opportunity afforded him of placing his facts and figures before the Association. He thought there was general agreement with the President's remark, in summing up, that all agreed in the opinion that there was need of a hospital for cases which were not suitable for asylum treatment, but which required special care. The need for that seemed to him to be so great, and pressing, and clear, and the number of such cases was so obviously great, that the efforts of members should be concentrated upon getting it done. He did not consider that questions as between Boards of

Guardians and County Councils, and so on, were at all relevant to the discussion. The need existed, and it was a public body which must carry it out. He was thinking of London at the moment, though it certainly applied to Glasgow and all large centres of population. One could not expect or hope to be successful within a reasonable time in getting it done by voluntary effort. Enough money would not be raised by voluntary effort to establish the necessary number of hospitals, in London or elsewhere, for the purpose of receiving voluntary patients, because they were patients who came to be more or less chargeable ultimately to the rates; and it was the function of a public body to do it. He pointed to the fact that in Glasgow they had been fortunate in having the Parish Council as an uniform administrative authority for both Poor Law and lunacy. The medical officers of London seemed to think it an advantage to have them as separate administrative authorities, but he thought the experience in Glasgow showed the advantage of uniformity of administration. The interest of the patient was secured; he was retained at the hospital from the very beginning of his ailment, and he was allotted in the way thought best by the medical officers in the interests of the patient and of the local ratepayers. He (Dr. Carswell) had been much impressed by the remark of Dr. Boyle that Professor Cramer had the control, not only of the psychiatric clinique, but also had the disposal of all the patients. It was his function to decide where they were to go, whether to the asylum or to the mental hospital. That he regarded as an ideal arrangement if one had the ideal man. All arrangements would break down if inefficient men worked them. It seemed to him that the work done in London, if Dr. Toogood's figures were accurate, was so admirably good that it was time that work was systematised and put upon a proper basis. With all the interests of the different Unions it did not seem likely that they would co-operate with the County Council; but that was a question of local administration, of which he knew nothing. But the fact that there were so many cases which required such careful sorting out, and that it was so successful as it was, indicated that there was evidence that the County Council's attempt to get the lunatics at the point of official origin, and systematise the methods by which they were cared for in the earliest stages and certified, was in itself a reasonable and logical thing. How it was to be done, how the conflicting interests of local bodies and County Councils were to be arranged, he did not know, but it surely was not beyond negotiation. Dr. Jones had, curiously, misinterpreted his figures entirely. Were it otherwise, he might have been flattered by the remark as to "clever dialectics"; he certainly never thought he was going in for that kind of thing. His point was that the patients were, presumably, not lunatics, and it was desirable to get a name for the disorder which was sufficiently descriptive without using asylum terms. It was all the same to him whether the term "melancholia" or "depression" were applied. It was extraordinary for Dr. Jones to count the recoveries at 24 per cent. on 1027 cases, 449 of which he (Dr. Carswell) never received into his hospital, they having gone to the asylum direct from their homes.

Dr. ROBERT JONES asked for a word of personal explanation. He took "removed to asylums" to designate "removed from the mental hospital to the asylums."

Dr. CARSWELL said 449 were removed direct to asylums and 134 passed through the hospital.

Dr. ROBERT JONES said he had calculated the recovery rate of 24 per cent. upon the total applications, which evidently should not have been done.

Dr. CARSWELL said it was evident that his figures had been misinterpreted. In conclusion, he offered his thanks for the opportunity afforded to him of bringing his facts before the Association.

Dr. ROBERT JONES said he had already in other places supported Dr. Carswell's scheme, and he personally had asked Dr. Carswell to come to the meeting, because he, of all others, had done work which was important that it should be fully discussed and understood.

Dr. NATHAN RAW, in reply, said he believed Dr. Carswell stated that the scheme under discussion if adopted would have to be carried out by some public authority. He would be glad to hear what public authority would have the power by law to establish a mental hospital, because that was the object of applying for the new Act of Parliament.

Dr. TOOGOOD said that he had no desire to attack the London County Council, but to defend himself and colleagues from attack.

Dementia Præcox. By THOMAS JOHNSTONE, M.D.Edin.,
M.R.C.P.Lond.

PERHAPS no other condition or disease is more frequently referred to than Dementia Præcox in the *Journal of Mental Science* for April, 1905. It might almost be thought that it holds the same position in psychiatry that the Fiscal Question does in modern politics. And though I may not be able to throw any new light on the subject, let me try to harmonise or conciliate some apparently discordant views.

Perhaps the mere name has much to do with this divergence of opinion, so first let us clear this up and know where we are.

Dr. Shaw Bolton defines dementia: "The mental condition of patients who suffer from a permanent psychic disability due to neuronc degeneration following insufficient durability." It is thus a degeneration or involution or reversion, and it is unfortunate that the word "development" should ever be coupled with it.

Again quoting Dr. Shaw Bolton: "If this *decrease in durability* be slight, neuronc degeneration ensues in old age; if it be more marked, it occurs at the climacteric; if it be still more marked, it will appear at maturity; and if it be very marked, it will appear evident at adolescence, or even at puberty." From this it follows that dementia may set in at varying decades of life, and anything of this nature occurring *prior* to 70 years of age—the allotted span of life—may be safely regarded as premature, so far as the dementia is concerned; and the earlier the appearance, the more hopeless the outlook, for an early onset means poor durability of the cortical neurones.

Now, a slight allusion to *præcox*, which may mean "youthful," "early," or "premature." Dementia *præcox* may be translated as adolescent insanity, in fact, most scholars would so translate it, and the writer of the Occasional Note in the *Journal of Mental Science* for April, 1905, does so translate it. But it would be better translated as premature dementia, and any dementia occurring before the age at which dementia would be diagnosed as senile, would be and could be called premature. The question whether dementia *præcox* should ever be applied to a curable condition seems to trouble some alienists. But

why should it trouble them? In ordinary medicine such things happen daily. A case is diagnosed pneumonia, and may recover, or it may run into acute softening, and the patient dies of phthisis; or rheumatic fever may be correctly diagnosed; still, if the patient be young, the heart may become implicated, and the patient ultimately die of acute ulcerative endocarditis; while, if the patient be advanced in years, the heart is less liable to attack, and the patient will make a good recovery.

Again, suppose we drop the term "dementia præcox" for "insanity of adolescence," we are not a whit the better, because cases diagnosed as the latter condition, which end speedily in dementia, ought to be diagnosed as dementia from the first, but they are not. It is surely as just to have applied dementia præcox to a case where *apparent* cure followed, as to apply "insanity of adolescence" to an undoubted case of dementia. Dr. Clouston, speaking of this uncertainty, says: "It seemed to be a 'toss up' between recovery and dementia, between mental life and mental death." But even the case referred to as having recovered was not an absolute cure, for after two subsequent relapses the patient succumbed.

As already stated, the earlier the onset the worse the prognosis, but coupled with this and perhaps qualifying it, must be taken the quality and quantity of work previously done, for certainly exhaustion produced either from the mental or physical side may cause the onset.

The following cases—freaks, if you will—illustrate the varying quality, resistance, or durability of the cortical neurones and large pyramidal cells in the prefrontal regions: Hermogenes, who at 15 years taught rhetoric to Marcus Aurelius and triumphed over the most celebrated rhetoricians of Greece, did not die early, but became demented at 24 years old. Henri Heinekem, born at Lubeck in 1791, was also a marvel. He spoke distinctly when 10 months old; when 1 year old he could repeat the Pentateuch by rote, at 14 months was perfectly acquainted with the Old and New Testaments. From hearing him converse in Latin even Cicero might have regarded him as an *alter ego*, and he was equally proficient in some modern languages, but died during his fourth year.

At the other extreme of life we have Hippocrates, Galen, and Asclepiades, all illustrious members of our profession, surviving 100 years, and leading intellectually healthy, vigorous

lives, with no indications of even a normal dementia, or postponed dementia!

In contrast with these we have the congenital imbecile or idiot, with no intellect at all.

Age is a relative term; a man is as old as his blood-vessels, and lives till his heart batters him to pieces.

Life also is a relative term, this idea, perhaps, being best set forth in the following lines:

"Life's more than breath and the quick round of blood—
It is a great spirit, and busy heart.
We live in deeds, not years, in thoughts, not breaths,
In feelings, not in figures on a dial.
We should count time by heart-throbs. He most lives
Who thinks most, feels the noblest, acts the best.
Life's but a means to an end."

Doubtless you recognise those lines as from Bailey's wonderful poem "Festus," written before he was 30 years of age. His cortical neurones and large pyramidal cells in his prefrontal regions did not give way, but the work done by him at the age of 25 represents the high-water mark of his intellectual activity and ability.

After all this, are we justified in drawing strict, hard and fast lines as to where and when intellectual evolution begins or ends in any given individual? Or during which decade in life shall we be justified in reckoning the intellectual ability as being simply adolescent or otherwise in any given human being?

In our every-day life we are constantly hearing of children being late in development, or precocious, or early in development. Are we, then, going to allow so much latitude to normal mental evolution in points of time, and to refuse similar time latitudes to the onset of mental diseases?

This disease—*dementia præcox*—attacks the highest intellectual centres, and its onset may be likened to a blight of cold on the blossoms of fruit-trees in a late spring. Such blossoms and prospective fruit are the highest indications of development of these trees, and may be absolutely destroyed, suddenly or gradually, or their development may only be arrested for a time, and dwarfed at maturity, according to the severity and persistence of the inimical climatic conditions. So, also, may cases of *dementia præcox* die of acute dementia, or evolution be only gradually or suddenly checked (for a

while), which causes a "dark period" of mental development—the reverse of the "lucid interval" in general paralysis of the insane, and at the end of this period, evolution, though delayed, may recommence, or the future mental endowment may be permanently dwarfed.

These results are produced by the quality of the nervous soil on which the disease or adverse conditions occurred, and by the virulence or violence of the disease, or its permanent or transient nature. In addition to this, however, a great deal of the prognosis depends on the question, as to the suitability of the treatment adopted, and the length of time it can be carried out, and also how, socially and financially, the patient may be protected from any adverse or annoying circumstances likely to engender a relapse.

As to the history of the term "dementia præcox," we find that Kahlbaum, in 1863, described a form of mental disease, occurring at puberty and rapidly terminating in dementia, which he termed "hebephrenia." In 1873 Dr. Clouston described such cases as insanity of adolescence, and in 1874 Kahlbaum described "katatonia," or the insanity of rigidity. These terms were not generally adopted, but in 1891 Pick, under the heading "Dementia Præcox," described cases, including hebephrenia with maniacal symptoms, followed by melancholia and rapid mental deterioration. It was reserved, however, for Professor Kraepelin to show the connection between hebephrenia, and the various forms of katatonia, and embrace them under the head of "Dementia Præcox and its Varieties."

Although Professor Kraepelin, in his *Lectures on Clinical Psychiatry*, devotes a Lecture to each of the following subjects, *vis.*, "Dementia Præcox," "Katatonic Stupor," "Katatonic Excitement," "Paranoid Forms of Dementia Præcox," and "Final Stages of Dementia Præcox," still, it is quite clear he regards them, not as separate entities, but as varieties of the same condition. In the Lectures referred to above, on page 32, speaking of Kahlbaum's katatonia, he regards it as a special form of dementia præcox. On page 35, § 1, there is a passing reference to dementia præcox, in explaining automatic obedience and negativism, as if it were a matter of course that katatonia and dementia præcox were intimately connected.

Again, on page 36, § 2, page 79, § 2, and page 80, § 2,

such references are made. Also compare page 81 on katatonic excitement with Lecture III on dementia præcox; so also page 203, § 4, and page 207, § 2.

At a meeting of the Italian Psychological Society last year Drs. Obici and Angiolella gave a paper on "The Psychoses at Different Ages of Life," which raised the burning question of dementia præcox. The meeting was very lively, but the views of Kraepelin were by far the most generally accepted. Dr. Manheimer, of Paris, in his book on *Mental Diseases of Children*, recognises *dementia præcox as a separate disease*, and gives as a reason for its greater frequency at adolescence the fact that at this period not only do the cares and responsibilities of life multiply, but this is also the age at which the free use of toxines sets in, such as tobacco, alcohol, etc.

In August, 1904, the French alienists held their annual meeting at Pau, when an interesting discussion on dementia præcox took place. No specialist who spoke at that meeting refused to look on the condition as a separate disease and one of a distinct type, though there appeared some divergence of opinion as to whether predisposing or exciting causes were the most active in its production. Dr. Denny, of Paris, defines the mental condition as a psychosis essentially characterised by an especial and progressive weakening of the intellectual faculties. It is a primary or universal dementia, being at first general, and affecting the great psychical faculties of emotion, intellect, will, and judgment.

Professor Kraepelin, of Munich, describes the condition as a peculiar and fundamental want of any *strong feeling of the impressions of life*, with unimpaired ability to understand and to remember. There is a silly play on words, weakness of judgment, and flightiness, and a marked mental and emotional infirmity.

Symptoms of dementia præcox.—If, as I have endeavoured to show, "premature dementia" is a better translation than "adolescent insanity," and the condition may set in at different decades of life, the mental symptoms must also vary greatly and cover a larger field. Thus, a patient of from 15 to 25 years of age would almost certainly present symptoms more or less distinct from a patient at an age varying from 35 to 45; or again, two patients æt. 25 would also present different mental phenomena if one were an honours' graduate in arts or

medicine, while the other was a hewer of wood or drawer of water.

Speaking generally, hallucinations and delusionary or delirious ideas appear more frequently in older people, and they are not so rapidly fatal as the cases occurring among the young. There is usually a history of neurotic inheritance. The symptoms in the early stages may be marked only by irritability, or a desire for solitude, or by slight states of apprehension, depression, or excitement, but as the disease progresses we get a kind of moral anæsthesia and emotional indifference, with carelessness and slovenliness as to personal appearance, or habits, or the ordinary observances of civilised life.

Later, so-called katatonic symptoms (the insanity of muscular rigidity or tension) appear, such as slowness and hesitation in movement from psychical restraint (an impediment of volition), a passive opposition to all motor impulses, *inertia* or *stupor*; then there may be abnormal suggestibility (excessive docility or imitative activity), restlessness, the continuous repetition of acts or movements (marching backward and forward like a beast of prey in a cage), or simply repetition of phrases of speech, fits of tears or laughter (without any obvious appearance of grief or joy); or there may be sudden impulses, extravagant gesticulations, or peculiar cataleptic or other attitudes. The most commonly observed are grimacing and smiling efforts at penning, negativism (resistance), stereotypism (foolish repetition), and automatic obedience, by some called automatism.

The patients' mode of shaking hands is peculiar; by a series of jerks they stretch their hand to meet the other person's, which they may touch or faintly grasp, but hardly ever shake. Occasionally automatic obedience and negativism are combined in the same patient; thus, when they do open their mouth to show their tongue, they roll their tongue back to the pharynx to prevent its being seen, or they may try to speak with their mouth tightly closed. They may have also what appears to be forced dumbness. These three combined symptoms are in reality psychological but not clinical contrasts.

The purely physical or motor signs are rigidity, increased knee-jerks, and occasional irregularity of pupils. When the disease attacks older people, in addition to the more frequently observed symptoms, other psychical manifestations or disturbances are, so to speak, "thrown in," such as delirious or delu-

sionary states, disorders of the senses, and alternating states of depression, excitement, or katatonic stupor.

It is in this way that subdivisions or varieties of the condition have been constituted, such as hebephrenia, paranoid and simple states. This is perhaps to be regretted, because in ordinary medicine such subdivisions do not necessarily occur; for although it is well known that measles may terminate by acute laryngitis, catarrhal pneumonia, or a subsequent phthisis, and also that scarlet fever may prove fatal by acute nephritis or a septicæmia akin to rheumatic fever, these two diseases are not subdivided into varieties.

The evidence referred to would appear to be largely in favour of looking upon dementia præcox as a separate and distinct disease, the different ages at which it may begin giving greater varieties. Moreover, when once this degenerative condition has laid hold of the nervous system, other mental diseases may attack the cerebro-spinal centres, and join it. In practice the points to be remembered in any given case of insanity presented to us, in adults at least, are, Is this absolutely the first attack? If not, was the previous attack one of dementia præcox, puerperal mania, maniacal depressive insanity, traumatic insanity, toxic insanity, or the delirium or insanity of collapse? And the treatment, with prognosis, would be dictated accordingly.

Leeds.

DISCUSSION

At the meeting of the Northern and Midland Division at York, May 4th, 1905.

Drs. BEDFORD PIERCE, MIDDLEMASS, and EURICH joined in the discussion which followed, and

Dr. JOHNSTONE, in his reply, pointed out that Professor Kraepelin used the term dementia præcox only provisionally; he also reminded his hearers how comparatively recently some of the infectious diseases had been differentiated, and he compared the state of our present knowledge with respect to them with that in the old days of pest-houses. In conclusion, he said the cerebral condition in dementia and dementia præcox had been well defined by Dr. Shaw Bolton; its pathology had been described by Klippel and Thermitte. The etiology being of such a general character, had led to its association with other mental conditions; but this was more apparent than real, for any disease attacking the brain would predispose to the subsequent onset of dementia præcox. The symptoms and relationships to other mental affections had been amply demonstrated by Professor Kraepelin, and the prognosis and treatment really depend on the severity of the changes in the nervous elements and their ability to be repaired; and having (if possible) restored them, these patients must be protected from any depressing or annoying circumstances likely to induce a relapse.

Clinical Notes and Cases.

A Case of General Paralysis of the Insane, with Syphilitic Meningomyelitis. By R. A. L. GRAHAM, B.A., M.B., Assistant Medical Officer, District Asylum, Belfast, and Demonstrator of Pathological Neurology, Queen's College, Belfast.

THE case about to be described is that of a male patient who was admitted to the Belfast District Lunatic Asylum on October 31st, 1899, from the Union Infirmary, Belfast.

R. A.—æt. 33, ex-policeman, married, no family.

Family history.—Good, as far as could be ascertained.

Personal history.—Had always been healthy. Intemperate as regards the use of alcohol. Patient stated that twelve years ago he had syphilis and was under treatment for varying periods in different hospitals. Abscesses broke out on his legs; no other complications. A short time after his recovery and return to duty he became incapable of attending to his occupation owing to weakness in his legs. Stated he “staggered on the street like a drunk man,” and that his “talk became loose,” and “nothing would lie on my stomach.”

On June 11th, 1898, patient was nearly drowned while walking on the sands at Ballycastle, where he had been sent to recruit himself. He lay unconscious on the sand for several hours. This he explained as due to a fall caused by “the shifting of the sand.” Patient remained in bed five days and then found his hands began to shake and his legs became weaker, so that he fell frequently on attempting to walk.

Admitted to the Royal Hospital on August 6th, 1898. On examination his knee-jerks were found to be exaggerated. Pupils reacted slowly. Sensation unimpaired. Speech slurring and indistinct. Distinct tremor of hands and of tongue. No nystagmus, no sphincter trouble, no wasting. Remained in hospital about one month. Case diagnosed provisionally as disseminated sclerosis.

Present illness.—Duration three weeks. First attack. Medical certificate states that he has degraded habits, tears his clothes, and beats the other patients (in the infirmary).

On admission.—Patient appeared rather delicate, but not wasted. Complained of weakness in his legs and trembling in his hands.

Cranial nerves.—Vision and hearing good. Pupils dilated and somewhat irregular in contour, with partial adhesion of left iris. No inequality, no iridoplegia, no nystagmus or diplopia. Discs normal. Fine tremor in tongue, which is protruded and withdrawn abruptly. Speech hesitating, jerky, with pauses between the words and syllables.

Muscular system.—Fairly well developed and no wasting.

Head and neck.—Distinct rotatory tremor.

Upper extremity.—Marked tremor in both arms, especially the right, which is increased by an effort to do anything. Cannot raise a cup of tea to his mouth without spilling the greater portion, and is quite unable to feed himself. Considerable weakness of both arms and inco-ordination of movement.

Lower extremity.—Marked weakness of both legs, so that he is unable to walk without assistance. Marked tremor in muscles of left thigh on attempting to move, and tremor is present in right leg while at rest. Right knee and ankle-joints somewhat rigid on passive movement; left less markedly so. On endeavouring to walk a few steps the stiffness becomes so pronounced that he is quite powerless to move the right leg. His gait is reeling, and he is inclined to fall to the right side.

Reflexes.—Knee-jerks greatly exaggerated, especially the right, and both limbs are in a distinctly spastic condition. Ankle clonus present in right leg. Plantar and abdominal reflexes marked.

Sphincters.—Slightly constipated.

General.—Numerous cicatrices of ulcers on both legs, and scar of a chancre on penis.

Mental condition.—(Abstract). Complains of being unable to remember things as formerly. Is rather quiet and dull, but answers questions intelligently, and can give a good account of himself. No evidence of delusions or hallucinations. Clean and tidy in person.

After a fortnight—Is brightening up considerably, laughing and talking when spoken to. A little elated and self-satisfied. Is sleeping and eating well. Temperature subnormal, about 97·4° F. About a week later seems to have an exaggerated idea of some little money his wife had. Is inclined to bolt his food. At end of a month is restless during early part of the night. Is becoming more elated. States he is well enough now to join the Royal Irish Constabulary again, although quite unable to raise himself out of his chair. Has been assaulting the other patients at night without any apparent reason. Pupils have become irresponsive to light and unequal. On January 5th weakness became more marked, and he required to be fed with fluid nourishment owing to great difficulty in swallowing. His speech became much weaker, but he still is able, he asserts, to take two men to the police barracks at once, etc. Very restless at night. Constantly making and remaking his bed. Towards end of month began to lose flesh, and the spasticity in his legs diminished as well as the knee-jerks. Became drowsy and apathetic, with a pleased expression on face. Swallowing very much affected, and almost speechless. Took cellulitis in left thigh with diarrhoea, and died four days afterwards, January 10th, 1900.

In asylum 3 months 10 days. Certified cause of death, general paralysis of the insane.

Autopsy.—General bodily condition fair. Cicatrix of chancre on penis. Lungs normal. Heart slightly hypertrophied. About two drachms of fluid in the pericardial cavity. Commencing atheroma of aorta, and some soft nodules on the mitral valves. Venous congestion of the liver, and a more marked congestion with slight interstitial overgrowth in spleen and kidney. A few small patches of congestion on the small intestine.

Brain.—The membranes are greatly thickened, and so closely adherent to the fronto-parietal regions on both sides that they could not be separated without tearing the brain tissue. About two ounces of cerebro-spinal fluid was obtained. The brain is congested. The convolutions are atrophic and considerably narrowed. The vessels at base of the brain, especially the basilar artery, are thickened and opaque. The brain on section appears normal except for a slight general congestion. In the left hemisphere, lying beneath the island of Reil and involving the upper portion of the claustrum and putamen, is a small circular cavity about the size of a large pea occupied by a clear fluid. Its wall is smooth, well-defined, and unstained.

Spinal cord.—Dura mater is thick and opaque, but not to the same extent as the cerebral, and is practically non-adherent. The arachnoid is also thickened, rough, opaque, and quite adherent to the pia mater except where it is distended in places with small collections of fluid. The whole cord is slightly larger in circumference than normal, especially in the cervical and upper dorsal regions.

Microscopical examination.—*Brain* shows the typical condition found in general paralysis of the insane in a fairly advanced stage, *i.e.*, chromatolysis and atrophy of the neurons in the cortex with overgrowth of neuroglia cells and fibrils, extensive deposit on surface of brain and around the blood-vessels of lymphocytes, plasma-cells, and some mast-cells, with collections of pigmented granular material. These changes are most marked in the parietal and frontal regions.

Spinal cord.—The appearances of the cervical and dorsal regions of the cord are very similar. The pia arachnoid is much thickened, coarsely fibrous, and very vascular. This increased vascularity extends also into the roots. Around these vessels and in the meshwork of the hypertrophied meninges is a diffuse infiltration of lymphocytes. The vessels are all congested, and the majority of the veins are thrombosed. Their walls are slightly thickened, especially the adventitia; and in some cases, as the anterior spinal artery and its branches, extending into the basilar artery, there is a distinct endarteritis. Around the cord is a marginal zone which does not stain with Weigert-Pal hæmatoxylin, but readily takes up carmine (Figs. 1-3). In the lateral columns this band is very extensive, involving practically the whole of the columns including the crossed pyramidal and direct cerebellar tracts. Anteriorly it is narrower and extends into the anterior median fissure. The posterior columns are immediately noticeable owing to the limited area of this border. Radiating from the marginal zone inwards are noticed a large number of wedge-shaped areas (Geschwulstzapfen of Siemerling and Oppenheim) which extend practically to the grey matter. Between the apices of these processes and the grey matter and even in the grey matter itself are numerous oval, elliptical, and circular areas, similar in structure to the former, but isolated from them and each other. These are most marked in the posterior columns. In all these sclerotic areas is observed a hyperplasia of the neuroglia cells and fibrils. In some places these cells have undergone hypertrophy, and, degenerating later, have left their thickened and elongated processes to form a dense network. The vessels in the cord are thickened, and some have collections of lymphocytes and a few plasma cells (?) in their perivascular lymph

sheaths, but not nearly so extensively as in the brain. The nerve-cells show swelling and chromatolysis, chiefly central. A few excentric nuclei and swollen and vacuolated nucleoli are visible. On the whole, the cells are comparatively healthy and have undergone very little alteration. The anterior roots show some congestion and sclerosis with a diminished number of healthy fibres in several segments. The posterior roots are apparently normal.

The lumbar and sacral regions (Figs. 4-6) differ from the foregoing in that the amount of sclerosis is much less extensive. The marginal zone is narrower and almost entirely confined to the lateral columns, and the wedge-shaped and other areas are much fewer in number. In the posterior roots of the sacral region several bundles of nerve-fibres are quite swollen and atrophic, taking up only a trace of the stain, while other neighbouring bundles are quite normal. The vessels of this region are noticeable by their hyperplasia and congestion. Very few, however, are thrombosed. A peculiar feature of the lateral columns of the lumbar region is the presence of great numbers of hypertrophied neuroglia cells, with coarse, branching processes, "spinnzellen" or "astrocytes." These are found scattered in the marginal zone with their processes radiating towards the periphery of the cord, or are collected in the form of tubes round the blood-vessels.

In vertical sections of any region of the cord a very evident hyperplasia of the smaller neuroglia cells is evident, noticeably so in the areas around the blood-vessels and in the sclerosed patches. Some of these cells have elongated and swollen nuclei and contain granules in their interior; possibly these are the "neuronophage" cells which Marinesco considers to owe their increase in number to the chemiotactic action of the toxin, and to be attracted to the areas of degeneration, thereby taking on a phagocytic function. He also considers these cells to have a destructive action on the unhealthy fibres, hastening their degeneration and absorption. In the sclerotic areas (Fig. 7) there are practically no medullary sheaths or axons visible, a rather marked variation from the persistence of the latter in typical cases of disseminated sclerosis. On the internal border of these areas, however, one finds a considerable number of fibres which are swollen, irregular, and take the hæmatoxylin stain feebly. On staining by Marchi's method there is evident a slight diffuse degeneration of the white fibres, perhaps a little more marked in the pyramidal tracts than elsewhere. There is no trace of myelin to be found in the sclerosed areas, it having probably been removed by the granular glia cells. These sclerotic patches appear, therefore, to be composed of blood-vessels and small neuroglia cells, and especially of their fibres, which show hyperplasia.

There are no true system degenerations in the cord, neither are there any gummatous nodules or collections of cells in any part of the brain, cord, or membranes, nor are any areas of ischæmic softening or hæmorrhage visible, except the small cavity in the left hemisphere. The small nodules of sclerosis, whether connected or isolated, are nearly always associated with blood-vessels, and in some of them one can trace the vessel in a longitudinal section as if forming the axis of the elongated nodule (Fig. 8).

The area affected in the cord is much more extensive in the cervical

and dorsal regions, and here no large glia cells are visible, their coarse fibrous processes alone remaining, while the cell bodies have already vanished. Apparently in the lumbar region the disease is more recent, as evidenced by the smaller extent of sclerosis, the more marked congestion, and the abundance of hypertrophied neuroglia cells and processes.

The membranes covering the pons and medulla are also thickened, and immediately beneath them there is a hyperplasia and hypertrophy of glia cells and fibrils. In the subependymal tissue in the floor of the fourth ventricle this alteration is very marked, giving rise to coarse and irregular nodules. The whole system of veins on the surface of pons and medulla is thrombosed.

The pathological interpretation of this case is interesting. The affection of the spinal cord is evidently the primary one, the disease extending later to the brain, and here giving rise to the degeneration of the higher neurons typical of general paralysis of the insane.

Owing to its extensive blood and lymph supply the spinal cord apparently furnishes an excellent situation for the influence of the syphilitic toxin. The course of the morbid process appears to be along the connective-tissue septa, the hypertrophic processes of pia mater and vessels forming the wedge-shaped growths being considered by many authorities distinctively characteristic of spinal syphilis. The morbid process extends imperceptibly from the vessels themselves (Bechterew ⁽¹⁾), and gradually leads to the degeneration and absorption of the contiguous nerve fibres and cells and their replacement by neuroglia fibrils. In this case the venous lesions predominate, especially in the cervical and dorsal regions, as has been specially emphasized by Lamy ⁽²⁾, Goldflam, and Sottas ⁽³⁾.

In individual cases, under special conditions which are as yet unknown, the nervous system seems to have an extraordinary tendency to the formation of syphilitic nodules, with the consequence that the specific affection of the nervous tissue takes on a disseminated character, but is distinguished from disseminated sclerosis by the preference that the nodules have for the neighbourhood of blood-vessels, and also by their small size. This opinion, enunciated by Bechterew, ⁽¹⁾ is fully borne out by the present case.

The commencement of the nervous symptoms so long after the primary affection is of interest, as according to Gilbert and



Fig. 1. Photograph. Seventh Cervical.

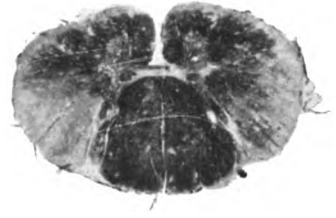


Fig. 2. Photograph. Fourth Dorsal



Fig. 3. Photograph. Eighth Dorsal.



Fig. 4. Photograph. Second Lumbar.



Fig. 5. Photograph. Fifth Lumbar.



Fig. 6. Photograph. Third Sacral.

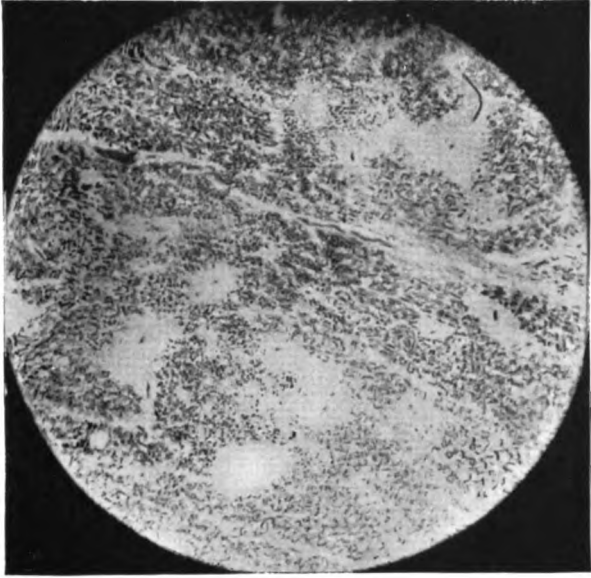


Fig. 7. Photomicrograph. Low Power. Third Cervical.

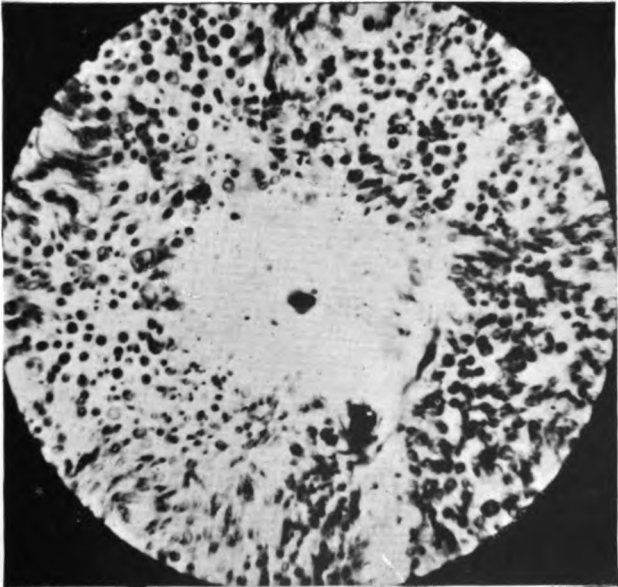


Fig. 8. Photomicrograph. High Power. Third Cervical.

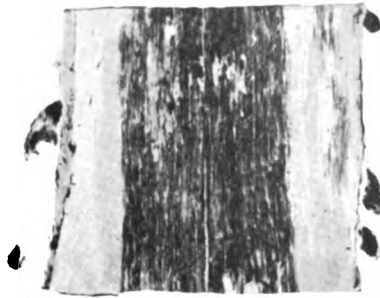


Fig. 9. Photograph. Longitudinal section through posterior half of cord in the cervical region, showing the sclerosis (pale areas) in the lateral columns on both sides, with small nodules in the posterior columns.

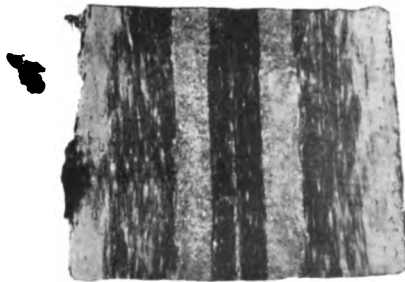


Fig. 10. Photograph. Similar section through anterior half of cord at the same level, including the anterior cornua. There is less extensive marginal sclerosis. The grey matter of the cornua has a mottled appearance, due to small nodules of sclerosis.

Lion (*) the meningeal symptoms usually arise in the first three years after luetic infection, and are a very rare complication after eight years. Nonne (†) has met a case occurring within three months of the primary infection. If the lesion appears after an interval of several years, as in this instance, its course becomes chronic and it is usually of the sclerotic type. Gilbert and Lion (*) divide the infection into a primary group appearing early, without any distinct macroscopic lesion, and characterised by an "infiltration embryonnaire diffuse" around the blood-vessels, "méningo myélite embryonnaire diffuse," succeeded in the second group, "diffuse sclereuse," by the involution of this infiltration into the sclerotic type. In this case the prevailing spinal lesion conforms more to the latter, while the brain lesion follows the former type.

It is also noteworthy in this case that, while the sclerotic lesion is maximal in amount, the vascular is minimal in comparison, the toxin apparently not being in sufficient concentration to cause an active inflammation of the vessels, but being by its slow diffusion capable of injuring the more highly organised and vulnerable nervous tissue.

The interest attached to this case clinically consists in the fact that one year previous to the patient's admission to the asylum his case was diagnosed as one of disseminated sclerosis. For some time afterwards there was considerable doubt as to the nature of the disease. It was probable that the mental development could be explained as a form of psychical enfeeblement which frequently accompanies the later stages of disseminated sclerosis, but in the course of a few weeks the symptoms began to point towards paretic dementia with grandiose ideas, Argyll Robertson pupil, inequality of pupils, etc. The rather puzzling point, however, is to account for the spinal symptoms. Here is a case of chronic meningomyelitis with isolated nodules in the cord, giving rise to symptoms exactly similar to those in the early stages of disseminated sclerosis, but (what is remarkable) with no symptoms whatever referable to the meningeal lesion, such as marked pain, tenderness or spinal rigidity, muscular atrophy or disturbances of sensation, and no evidence of the special diagnostic symptoms observed by Oppenheim, *e.g.*, interrupted course of affection, oscillation of individual symptoms, and the difficulty of their localisation. In all the literature available to me the only two cases which at all approach clinically

and pathologically to the present are described by Greiff (7), and here the similarity is most marked except that the involvement of the posterior columns was more extensive in both instances.

Zacher (8) describes a case similar in many respects to those of Greiff, except that clinically there were symptoms of hemiplegia, facial paralysis, and epileptiform convulsions, in addition to those described above; while the pathological findings tended more in the direction of a multiple sclerosis without the same extent of meningeal involvement.

Numerous other cases are described in pathological literature where there are distinct specific meningomyelitic lesions with arteritis and a termination in general paralysis of insane, but at the same time show nodules of sclerosis, impossible to distinguish from those of disseminated sclerosis, distributed irregularly throughout the cord and brain (Bechterew (1), Schultz (9), Claus (10), Siemens (11), Otto (12), Petroff (13), Schüle (14), Hunt (15), Crouzon (16)).

How far the three cases quoted and the one described bridge over the separation area between typical disseminated sclerosis and spinal syphilis, or how far they demonstrate a line of demarcation between these two complex groups of diseases, I do not feel competent to decide. To me the whole case serves to illustrate the complexity of most of the diseases involving the nervous system, and the peculiar tendency of quite different types of lesions when affecting certain regions of the spinal cord to give rise to almost identical symptoms, thus rendering an accurate clinical diagnosis almost an impossibility.

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DISCUSSION

At the Meeting of the Irish Division held at the Stewart Institution on May 9th, 1905.

Dr. RAINSFORD said the paper raised the question of the diagnosis of general paralysis, which he considered a very indefinite entity. The only symptom of the disease in Dr. Graham's case appeared to be slight elation. He thought that there was too great readiness to call any general disease in an asylum general paralysis.

Dr. NORMAN thought the Division was to be congratulated on Dr. Graham's paper, and hoped it would be published with the micro-photographs.

Dr. LEEPER expressed interest in Dr. Graham's study of the descending degenerations, and alluded to the selective action shown by the syphilitic poison. He thought that the slight degree of the mental involvement was to be explained by the small extent to which the cells were affected.

Dr. DAWSON said that the spinal disease seemed to him to have preceded and been quite distinct from the cerebral disease, which was a separate lesion altogether.

Dr. EUSTACE asked a question as to the duration of the illness.

Dr. GRAHAM, in reply, said that the diagnosis between disseminated sclerosis and general paralysis had long been in doubt, but that the autopsy had decided in favour of the latter. He fully agreed with Dr. Dawson as to the order in which the diseases had attacked the patient.

Occasional Notes.

The Annual Meeting.

The Annual Meeting of this year was of more than ordinary duration owing to its being preceded by the adjourned Annual Meeting, at which the new statistical tables were finally adopted. The attendance of members was larger than in

previous years, and the activity of the Association, as manifested by the meeting and reports of its various committees and the number and interest of the communications, is undoubtedly not diminishing.

The President's address took the novel and much-needed form of a review of the work of the Association and its organisation. This could not have been more appropriately undertaken than by a member who has been so long and intimately connected with the administration, and who has done so much to promote the welfare of the Association, as well as to extend its influence and usefulness.

The Annual Meeting commonly gives clear indications of the work of the coming year, and this would certainly appear to be very considerable. Prospective legislation, especially in regard to the strengthening of the Lunacy Commission, the early treatment of the insane, and the registration of male and female nurses of the insane, will give ample employment to the Parliamentary Committee. The Statistical Committee has still to make arrangements for the practical use of the new tables, and the housing and re-organisation of the work of the Association will also probably require a considerable amount of attention from the Council.

Legislation.

The Parliamentary Session has again passed over without producing lunacy legislation of any importance, and the prospect of the House of Commons, as at present constituted, ever again performing legislative functions satisfactorily appears to grow more remote.

Business methods year by year appear to be more lost sight of party squabbling wastes more time, and the absence of all foresight or appreciation of the needs of the country becomes more conspicuously absent.

The latter developments of political parties, indeed, should make poor John Bull exclaim, with Mercutio, "A plague o' both your houses!"

The single representative of our speciality in the House has again shown great zeal, and has exerted a greater amount of influence than could have been expected in the party *mêlée*.

There are other members of the specialty whose character and position well qualify them to aspire to a seat in Parliament, and who might well leaven the existing party mess.

An election is not now remote; and it is possible, if rumours have any foundation, that Sir John Batty Tuke may not stand unaided in the new House in his strenuous fight with the powers of legal darkness.

The Organisation of the Medico-Psychological Association.

The President in his address drew attention to the desirability of attempting a further advance in the organisation of the Association by obtaining better central housing accommodation and the services of a paid official to discharge many of the duties now performed at considerable personal sacrifice by honorary officers of the Association.

The combination of all the medical societies in London into what would practically be an Academy of Medicine is now under consideration by the leading spirits of the medical profession, and the result will probably be brought before the Medico-Psychological Association at no very remote date.

The large number of special medical societies, each with its own rather costly organisation, would seem to offer a good field for combination, with considerable economy. Union, too, would certainly be productive of much greater strength to the profession in its relation to the public.

The sacrifice of a certain amount of independence to obtain such important results may possibly be necessary, but the preservation of all useful independence in such an arrangement must be carefully safeguarded.

The Registration of Male and Female Nurses of the Insane.

The registration of mental nurses is one of the subjects most forcibly dwelt on by Dr. Outterson Wood in his presidential address, and demands the most urgent attention of the Medico-Psychological Association as affecting the social standing and welfare of the nursing staffs of our institutions.

If general hospital and obstetrical nurses obtained legal recognition by registration, while asylum-trained nurses were excluded, the result would possibly be that a less respectable and intelligent class of nurses would apply for service in mental hospitals.

The injustice of such an exclusion would be very great, in face of the training which is now demanded of the certificated mental nurses, and of the fact that they are being steadily increased in efficiency. The faults and defects of the teaching and examination of mental nurses are being freely criticised, and the criticisms lead to amendments. In this respect, as in the scope of teaching, the training of mental nurses will compare not unfavourably with that of the hospital nurses who run some risk of stagnation from over-laudation.

This Association some years ago sent a deputation to H.R.H. the Princess Christian, President of the Royal British Nurses' Association, and since that time continual efforts have been made by Dr. Wood and others to uphold the right of mental nurses to be considered on an equality with their general hospital and obstetric *confrères*. For a detailed account of the present position of matters we refer our readers to the President's address.

The Report from the Select Committee on Registration of Nurses recently issued contains the following clause (No. 22): "The Committee are of opinion that a separate register of 'Registered Asylum Nurses' should be kept by the central body, to which should be admitted the names of nurses who have served for not less than three years (in not more than two asylums) and have received the certificate of the Medico-Psychological Association and can produce satisfactory certificates of good character."

The Association is fortunate, at the time when this question of registration is approaching its final stage, in having as President a member of the Council of the Royal British Nurses' Association, who for years past has upheld the interests of mental nurses, who has taken such an active part in the literary discussion of the subject, and who materially aided in obtaining the insertion of the above clause in the Report of the Select Committee.

The Statistical Tables.

The new statistical tables adopted at the meeting of the Association in July last are the outcome of three years of strenuous work on the part of a most energetic committee, of the deliberations of every section of the Association, of lengthy consultations with governing bodies, and of the opinions of statistical specialists, together with a vast amount of individual consideration and suggestion.

The Association probably has never before given such general and protracted consideration to any of its new departures.

The tables finally adopted, with a few minor alterations, have long been in the hands of the members of the Association, and may therefore be regarded as having received deliberate acceptance, and as representing their views on practical statistical possibilities at the present time.

Statistics of the facts relating to insanity are so complex and intricate that complete unanimity in regard to any special method is absolutely hopeless, particularly in the members of this Association, who, as the reports of our meetings show, are characterised by a very striking amount of individuality of view.

It is not surprising, therefore, that while the body of the members, by their abstention from the final debates, indicated their acceptance of the tables, a few upheld their opposition on certain points to the very last.

These irreconcilable differences of opinion have been so fully discussed that it is unnecessary to do more than allude to their existence, and to express the hope that with its usual loyalty the Association will unite to make the best possible use of the tables as they now stand.

One general criticism of the tables may be alluded to, *viz.*, that they will involve a great amount of additional work. Those, however, who have had experience of the compilation of tables on a somewhat similar system maintain that the increase will not be so very large. It is well to remember that since the old tables were introduced there has been a great increase in the strength of medical staffs of asylums, which should render the performance of such work more easy. Moreover, the importance of the work is so great that it should still be undertaken even if it necessitated an appeal to the governing bodies for temporary help, a very remote contingency in most asylums.

The statistical work performed by some American and continental institutions is far in excess of that which is demanded by these tables, and this argument alone should suffice to stimulate our members to the acceptance of any additional labour.

The Statistical Committee is to be congratulated on the completion of its task. No committee, probably, in the history of the Association, has devoted more time, energy, and personal expenditure to the discharge of its functions or has manifested more unwearied zeal and patience. The thanks of the Association should be as unstinted as the services rendered, and it is to be regretted that there is not some more tangible and enduring method of testifying this gratitude than by mere verbal expressions. The prompt and universal adoption of the tables is the one method by which the Association can permanently attest its appreciation of the value and success of the labours of this committee.

The Library.

The Library of the Association, which was originated by the bequest of the books of the late Dr. Hack Tuke, and to which the interest of the Hack Tuke Memorial Fund is devoted, is now so organised that it should be a valuable help to those members of the Association who require to consult books of reference.

Books can now be sent to members of the Association living at a distance for the cost of the postage, and it is to be hoped that in the future a large amount of use will thus be made of the Library.

Current literature, which has not been added to the Library, can be obtained through Lewis's Lending Library.

The permanent Library is still defective in many important books on medico-psychological subjects, and it is very desirable that the members of the Association should study the Library Catalogue with a view to contributing such works.

The Library Committee would also be indebted for suggestions in regard to books that should be acquired.

The Section of Psychological Medicine.

The Section of Psychological Medicine, under the presidency of Dr. Urquhart, appears to have been unusually successful and interesting.

Owing to lack of space, we are unable to deal with the proceedings of the Section in this number of the JOURNAL.

Members of our Association appear to have taken conspicuous parts in other sections. The address given by Dr. Maudsley demands special attention, and a discussion, opened by Dr. Weatherly, in the Section of State Medicine, on the provision of sanatoriums for poor consumptives, was well supported.

The desirability of the close association of the Annual Meeting of the Medico-Psychological Association with the British Medical Section has often been discussed and there is so much diversity of opinion on the point that the result of a general vote would be very useful for the guidance of the Council.

Part II.—Reviews.

Psychological Medicine: A Manual of Mental Diseases for Practitioners and Students. By MAURICE CRAIG, M.A., M.D.Cantab., M.R.C.P.Lond. London: J. and A. Churchill, 1905. Pp. viii, 447.

With the appearance of each new work on mental diseases one is conscious of a hope that here at last is the pre-eminent treatise which can be unhesitatingly recommended as *the* best book in English on the subject. The manual before us is not such a treatise, but, nevertheless, Dr. Craig has produced what is, upon the whole, a commendable work. The keynote of the book is struck in the Preface, when the author states that "the student will be constantly reminded to look upon mental disorders in the same way that he views disease in general," and the stress laid upon the physical signs of the different forms of mental disease bears out this statement, and is an entirely satisfactory feature of the work. It is somewhat inconsistent, however, to impress upon the reader that general paralysis "is a disease of the nervous system, and is not in the ordinary sense of the word an insanity," as if the former statement were not true of every form of mental illness.

Despite certain faults which will be alluded to later, the clinical descriptions are good, and furnish reliable pictures of the diseases treated of; and the therapeutical sections are also on the whole satisfactory, the reader in both departments having the advantage of the considerable experience of the author, who is evidently a painstaking observer. But it is disappointing, at this time of day, to find a work by one of the younger school of alienists destitute of any introductory sketch of anatomy, physiology, or (worst of all) pathology as bearing on the study of mental diseases, and this is the more surprising when one considers what we have called above the keynote of the book. It is true that some sketch of the pathology is appended to the descriptions of the different diseases, and a very full and copiously illustrated account to that of general paralysis; but these sections cannot be called satisfactory, and where there is a difference of opinion the author, with a somewhat misplaced modesty, refrains as a rule from giving the reader any assistance whatever in arriving at a judgment. In a book intended primarily for students this is, we submit, a mistake.

The work commences with a useful chapter on Normal Psychology, followed by one dealing with the question, What is Insanity? Next comes a chapter on the General Causation of Insanity (which calls for no particular remark), and then one on Classification, in which, after giving the systems of Maudsley, Savage, Krafft-Ebing, Kraepelin, and others, the author promulgates a kind of eclectic scheme, which he wisely avoids calling a classification, wherein items from other classifications are jumbled together without much attempt at system. Probably this is all that can be done at present, but such a plan must be most confusing to a beginner, and we cannot see how it possesses any advantage over the older system of classification by mental symptoms. No system can be other than temporary in the present state of our knowledge, and the old one had at least the merit of passable uniformity, and was a logical consequence of our establishing the group of "mental diseases" at all. If this be objected to, however, probably we cannot do much better than Dr. Craig has done.

The next chapter, on General Symptomatology, is good, but would be better if the various symptoms were arranged more systematically, and this applies to the clinical descriptions throughout the book, which are in other respects good. The section on the Heart and Vascular System, in which Dr. Craig gives a summary of the results of his work on blood-pressure, is particularly interesting. (Chapters on insomnia and on general treatment, which should come in here, are for some reason relegated to the end of the book.)

The systematic description of mental diseases begins with states of excitement, passing on to states of depression, with regard to which we may note that Dr. Craig has not convinced us of the desirability of classing agitated melancholia under the head of Mania. Next comes stupor, including catatonia (which, by the way, was both described and named by Kahlbaum long before 1874). We may note that absence of spontaneous movement does not constitute "negativism," as here stated. In the description of paranoia which follows Dr. Craig appears to have missed the essential mental feature, *viz.*, impairment of judgment, and we could find no mention of the by no means uncommon sequence of

symptoms which constitutes the *délire chronique* of Magnan. In dealing with dementia præcox, we note that he is of opinion that "there is no recovery in an unqualified sense" from this form of disorder, a statement which we take leave to doubt. We are inclined to agree with him however, as to the expediency of restricting the name—a bad one at best—to the hebephrenic form. Under the heading of Pathology we miss any allusion to L. Bruce's observations. A chapter on Secondary and Organic Dementia is followed by a not wholly satisfactory section on the Puerperal Insanities, the treatment of which, considering their practical importance, should have been dealt with more at length. Climacteric and Senile Insanities are next described, and a chapter on Alcoholism, Morphinism, Cocainism, and Plumbism is followed by an excellent description of General Paralysis, in which, however, the author seems to us to be too much "on the fence" with regard to the etiological importance of syphilis. The pathological section is enriched with copious illustrations, mostly reproduced from the *Archives of Neurology*. The short accounts of Neurasthenia and Acute Hallucinatory Insanity are good, but personally we lean to the theory of a toxic origin for the latter. Epilepsy, Hysteria, and Traumatism in relation to insanity next receive attention, and then the subject of Obsessional Insanity. Of the necessity of making the last a distinct form we are doubtful. The Section on Syphilis in the chapter on Insanity and Physical Diseases leaves something to be desired. Other chapters follow on Idiocy, Imbecility, and Moral Insanity, on Feigned Insanity, and on Law in Relation to Insanity. Oddly enough, the subject of certification of patients is dealt with, not in this chapter, but under the head of Case-taking, while this latter subject receives scant notice. The book ends, as before mentioned, with a chapter on Treatment.

Dr. Craig's English is not beyond criticism at times, and he does not invariably escape the tendency to diffuseness which is the bane of writers on psychiatry; but his views, which are almost always very sensible, are often forcibly expressed, and his book is both readable and interesting, while his facts are up to date.

Part III.—Notes and News.

ADJOURNED (1904) ANNUAL MEETING.

Held at 11, Chandos Street, London, W., 19th July, 1905.

Dr. PERCY SMITH, President, in the Chair.

The following members were present:—Drs. Fletcher Beach, C. Hubert Bond, Arthur N. Boycott, James Chambers, Maurice Craig, Thomas Drapes, Charles C. Easterbrook, Charles K. Hitchcock, Theo. B. Hyslop, J. Carlyle Johnstone, Robert Jones, Harold A. Kidd, Alfred Miller, H. Hayes Newington, Bedford

Pierce, Henry Rayner, Arthur Rotherham, R. Percy Smith (President), Robert H. Steen, David G. Thomson, Alex. R. Urquhart, Lionel A. Weatherly, Ernest W. White, T. Outterson Wood, David Yellowlees.

The minutes of the last adjournment of the Annual Meeting were confirmed and signed by the President. Thereafter the General Secretary read the notice summoning the meeting.

The PRESIDENT having arranged the order of business, and announced the Committee meetings, called upon Dr. Yellowlees, Chairman of the Statistical Committee.

Dr. YELLOWLEES.—It falls to me to move, "That the further Report of the Statistical Committee be received, and that the definitions, tables, and registers as therein set out be finally adopted by the Association, with such additions or amendments as the Association, at this adjourned annual meeting, may now order." I do not need to enter upon this Report; it has been placed in your hands. I would say on behalf of the Committee and myself that our very earnest desire throughout the last three years has been, not to insist upon our own individual opinions, but to embody in our tables, as far as possible, the needs and wishes of the Association. We began by consulting every individual member of the Association by circular. We have twice consulted all the Divisions, we have had a great deal of private correspondence; and we have tried to frame those tables in a way which shall be acceptable to the majority. No one member of the Committee has got his own way, and no member of the Association can expect to have all his own way. (Hear, hear.) Our great desire was that we should get something which would be a valuable record of the work done in our asylums. Individuality must be to a certain extent sunk if we are to achieve that end. I suggest that if there are any objections to the whole scheme they should be disposed of first, and then that the individual tables should be taken *seriatim*. We are extremely anxious, as a Committee, to be relieved from the long labour which we have willingly and earnestly tried to perform.

Dr. BOND seconded the motion.

The PRESIDENT.—This resolution has been duly proposed and seconded. At the meeting in November last it was definitely carried that the principle of altering the form of the Register be approved and adopted, and that the alterations in the Registers proposed by the Committee be provisionally adopted. The general arrangement of the Tables proposed by the Committee was also approved and adopted at that meeting. Since then, I understand, the Tables have been altered in number, but, I gather, not in general arrangement.

Dr. CARLYLE JOHNSTONE.—Were the general principles approved? I took exception to them, and asked what "provisional approval" meant.

The PRESIDENT.—"Provisionally" was the word used for the Tables. "The principle of altering the form of the Register" are the words on record.

Dr. CARLYLE JOHNSTONE.—I think the word "approval" was qualified.

The PRESIDENT.—Not in regard to the Registers. I refer you to the JOURNAL, but I think that the principle of altering the form of the Registers was approved.

Dr. CARLYLE JOHNSTONE.—I think they had *general* approval.

The PRESIDENT.—It is proposed that we should first discuss general objections to the principles, then objections to definitions, then objections to the tables in detail, and finally objections to registers. I now invite members to state any objections to the principles of the proposed alterations.

Dr. BOYCOTT.—Personally I object to the entire tables, taking them altogether. In my individual opinion they are much too elaborate. We ought to go on the principle that we want to obtain certain definite facts, which will be useful when finally summarised for asylums throughout the kingdom. There is the local interest, and the general interest; but many of these tables, it seems to me, are neither of general interest, nor of local interest. They are most carefully and thoughtfully drawn out, but they are very much too elaborate; they are not simple enough. The Committee do not seem to be certain whether they submit these tables as final or not. For instance, on page 6 they say "Certain of these Tables, notably B1, B2, and B5, now detail the same information for the Transfers as for the Direct Admissions. This involves, to some extent, an increase in labour, but it is in compliance with the strong desire felt by some to attain a local completeness of portraiture." And, a little further on, "As the Committee previously pointed

out, proper inquiries into the antecedents of the Transfers are generally impossible, and the relative number of this class seems to be increasing; moreover, the medical facts-on-admission will have already been once recorded and tabulated by both the central authority, and locally by the asylum into which the case was originally admitted, and the repetition of these facts involves a grave false statistic." That is the Committee's argument against their own tables, and against tables showing particulars about Transfers, for instance. (Hear, hear.) On page 7 they say "It is a method of treating the cases to which it attaches no small importance, and, if the Association will acquiesce in restricting its request for information upon certain points to the First Attack cases, a very considerable saving in labour to the compilers will ensue." That evidently means that the Committee do not wish their tables to be carried out as set forth. I rather thought that these Tables were submitted as final, not as a try-on to see if they are acceptable. Certain tables are submitted as "optional." I think that they ought to be accepted entirely, or not at all; it would be preferable to each man saying he was going to do one table and not another. In regard to Table C6, page 10, the Committee say "The suggestion of Dr. Chapman has now been incorporated, but the Committee recognises that the compilation of this Table, as a whole, will be very laborious," etc. Evidently the Committee are not very keen on that Table. I have a strong objection to the extreme amount of printing involved. The annual cost will amount to a considerable sum. In small asylums it will be very, very heavy. It will amount to some hundreds of pounds in the whole kingdom. Excluding those marked "optional," there are twenty pages of print, many are large double sheets, while the old tables were only thirteen in number. The amount of labour in compiling these tables will be immense for assistant medical officers. They do it very willingly, and we who are superintendents know the labour entailed, which will be enhanced by these very elaborate tables, which really do not bring out any facts of definite importance. (Hear, hear.) I therefore beg to move as an amendment, "That the Report of the Committee be received, and that the Committee be thanked for the trouble and care which they have expended, and that the Report be allowed to lie on the table for future reference."

Dr. KIDD.—I beg to second the amendment, and associate myself with what Dr. Boycott has said. This matter has been in gestation for a very long period, and we have all waited anxiously for the result of the labours of the Statistical Committee. But I, for one, was entirely surprised at this amazing litter of tables. I expected that the original tables would be simplified and modified, but they have been enormously increased. They are now twenty-five in number, as against fifteen or sixteen, and the tables themselves are longer and more complicated; and the work which these tables will entail upon the medical officers will be very greatly increased without any corresponding advantage. Some of the tables are marked optional, but there is a suggestion that the Committee could add a few more if necessary. One cannot but appreciate the work of the Statistical Committee and the way in which the scientific information required by the Association has been gathered together. What I object to is that it should be imposed upon us to return these facts in this particular way. Why not return the facts in the form of registers, not in the form of tables. The English Commissioners in Lunacy draw up their statistics from very simple returns; the same method should apply to the Medico-Psychological Association. The registers are excellent. The Civil Register remains very much as it was, with the omission of religion. It is a small point, but it should be included. (Hear, hear.) I do not know why it has been omitted. The Committee starts by saying "it does feel that the Tables and Registers now presented are reasonably full and sufficient for their purpose," etc. And later "Certain forms have been prepared for the purpose of facilitating the expedition and accurate expiscation of the Registers in such shape as to render tabulation a merely mechanical operation." It is that "mechanical operation" to which I so strongly object. The process by means of which all these facts are gathered is extremely difficult; it is one which requires very great care, but tabulation in the form of registers is what every medical officer does more or less, and which could very well be done in such a way as to embrace all the facts required. The mechanical operation of tables should be done by a non-medical clerk. (Hear, hear.) My own clerk, on considering these proposals, said: "We get off very lightly; we have less work to do." If the registers are full and complete, anybody

can do this work of tabulation. I believe that, abroad, there are bureaux where the statistical tables are made up, and I do not see why we should not adopt this method. If the Association think it is right to return the facts in these tables, the Association should appoint a clerk to collect them annually, and tabulate them for the Association. I am sure that there is a very strong body of opinion outside this room against these tables, and if there were a referendum you would receive that opinion from medical officers and superintendents. I hope that the tables now submitted will not be passed by this meeting.

Dr. URQUHART.—As a preliminary question I desire to be informed if this amended Report has been submitted to Professor Karl Pearson, and if he has had brought under his notice all the relative objections which have been raised, in correspondence or otherwise. (Hear, hear.)

Dr. BOND.—Yes, I have interviewed Professor Karl Pearson, who has now the "Further Report" and the objections that have been raised to it. But he is a busy man, and I have not yet had his reply. It is not many days since he received it.

Dr. URQUHART.—I would point out that three years have passed since the Committee began their arduous work, and, after the very many meetings they have had, we must have the profoundest sympathy with the Committee in the sacrifices which they have made in coming to their conclusions. But it is necessary for me to oppose the motion with an amendment to the effect—

The PRESIDENT.—You cannot move another amendment now.

Dr. URQUHART.—I am not prepared to vote for the first one.

The PRESIDENT.—We are now hearing objections to the principles.

Dr. URQUHART.—I ask whether the amendment is not applicable to the methods of the Committee rather than to the principles. The principles they have acted upon are stated in their first Report, *e. g.* saving of labour and guarding against ambiguities of expression (page 2).

Dr. YELLOWLEES.—This amendment illustrates very strikingly how little those gentlemen understand what the Committee have deemed their duty, and the way they have tried to discharge it. And it is also very remarkable how little they understand the work which the Committee have done. The very thing which Dr. Kidd insists we ought to have done is exactly what we have done, and he blames us for not having done it. If he will look at our Register he will see it is exactly the thing which he desiderates; it embodies all the facts which are in these tables, and it gives all the facts required to compile those tables. It was the very object and purpose of the Committee that there should be less clerical work by the doctor, and, if he keeps the Medical Register, the clerk can do the rest. As for the extension of the tables, it is the Association's fault, not ours. We have only tried to carry out the will of the Association, as communicated to us through its Divisions. The object has been to simplify and lessen the work, and the "optional" tables have been added, so that as many as possible should find what they want in these tables. It was by no wish of ours that they were extended. Quite otherwise. We would have been glad to have shortened them, but we followed not our own desire, but what was the expressed wish of the Association as communicated to us through letters and through its various Divisions. And to tell us now that the whole thing is useless seems not only to come rather late in the day, but it somewhat fails in courtesy. We recognise the appreciation which has been expressed as to the trouble we have taken. We honestly have taken a great deal of trouble, and we do not expect you to agree without discussion. You are invited to modify and alter. But to throw the Report overboard in that sweeping way would scarcely be what is due to the Association, which has already provisionally approved it. (Applause.)

Dr. KIDD.—I should like to make a correction. The Chairman of the Committee, in referring to me, said that I fail to recognise the object of the medical registers. I distinctly stated that they were extremely good, and that they embraced all the points, with some omissions, and that they would be excellent alone. What I said was that these registers could be kept by the medical officer, but that the rest of the work should be done by a clerk, *not* the asylum clerk. The Tables have to be made up to December 31st, and this is a difficult time for everybody. They should not be thrust on the clerks of the asylums. Copies of the compiled registers should be submitted to the central authority, the Statistical Committee, if you will, and they should have the Tables constructed in accordance with their scheme.

Dr. YELLOWLEES.—There is another mistake in what Dr. Kidd has said. The clerk would not have all the work to do in December, but he would do it as the year goes on. The registers would be kept up month by month, not left over till the end of the year. A month after the patient's admission all the details about him are in the register, and when they are so entered, the clerk can begin to compile his tables. It is in the month of February that he works them out, but the information is compiled all along, and easily. In a short time at the end of the year he can present them completed. That is one very important value of the registers, which, I am sure, Dr. Kidd had overlooked.

Dr. KIDD.—If that is the case these Tables will be useless. It is absolutely impossible to record the information in relation to admissions within a month or so.

Dr. HAVES NEWINGTON.—With regard to that last point, I would say that we have consulted with the Commissioners as to the possibility of altering the register on the receipt of better information chiefly on the point of diagnosis. But I do not think that affects the main point. The preparation of one of these Tables from the material in the register with the help of a compilation form has been tried, and it was found to be perfectly easy. The main suggestion of Dr. Kidd has a good deal in it, that all the registers should be sent to a central authority. But the effect of that would be not very happy, because it would be really a substitution of general information as to statistics to the exclusion of information locally applicable in a particular asylum district, and it would cause much more trouble to send up faithful copies of registers to a central authority to expiscate.

The PRESIDENT then put Dr. Boycott's amendment to the meeting, when 5 voted in favour, and the amendment was declared lost.

Dr. URQUHART.—I now move "That no resolution of the Association passed to-day shall be final and binding until a report on the whole matter has been received from Professor Karl Pearson or some expert of equal eminence, after consideration of the report of the Committee and all relative documents submitted to them."

The PRESIDENT.—Is Dr. Karl Pearson a member of the Association or of the Committee?

Dr. URQUHART.—No.

The PRESIDENT.—Our Annual Meeting of 1902 refers this to a special Committee, and it has been adjourned to 1905. It seems to me rather a serious matter at this time to refer the report to somebody entirely outside the Association.

Dr. URQUHART (in reply to a remark by Dr. Jones).—I quite understand that Professor Karl Pearson is one of the busiest men in the country. So is Mr. Francis Galton, and both of them are interested in the questions which are raised by the Association in this particular report. Mr. Francis Galton, as you know, has done yeoman work in similar research for many years, and his advice would be most valuable. I put it long ago to the Statistical Committee that this Association positively must induce an expert in biological statistics to examine their proposals and report thereon. It is all very well for the Statistical Committee, not one of whom is an expert in statistics or in biology any more than myself who criticise, to bring forward a report. But things have changed altogether since the last tables were promulgated by the Association. Even then a statistical expert was consulted, who showed definitely what ought to be done in regard to matters of arithmetic. And whether the arithmetic of the proposed tables is as brief and as simple, and is as duly directed to the points at issue as it ought to be, is still a question. If we were careful in this respect twenty or thirty years ago, surely much more ought we to be careful to-day, when biological science has advanced so greatly, and when biological methods have become of so much intricacy as to require expert opinion. I suggested Professor Karl Pearson; and believe that if he were asked he would, especially in regard to these hereditary tables, give us good guidance. If he could not do it himself, surely those who are working under him would be available to aid us with his authoritative sanction. If Professor Karl Pearson is not interested, why have the Committee gone to him? Why have they taken up his valuable time? It shows that we must go a step further, and have his answer as an expert in the doctrine of probabilities. Are we dealing with these statistics in the briefest way so as to elicit scientific truth? Are we dealing with them by the least possible expenditure of energy so as to get what the biologists of the present day require? While this is in doubt I must move, not for the negation of these tables which the Committee have produced, and

which I personally think are a very great improvement upon our present tables—I could not be a party to stopping the discussion prematurely—but I must, in the interests of the Association, move that we do procure expert opinion. My only interest is the interest of the Association. I beg the Association to note that these are not local tables; they are national tables. They will be received by every country in the civilised world and criticised. We must make no *fasco* over them. If we regard the honour and interests of the Association we shall take every precaution that they are the very best statistical tables the world has yet seen, that they are best adapted for the elucidation of the problems of insanity.

Dr. CARLYLE JOHNSTONE.—I second the amendment. I do so with considerable diffidence. The idea involved in Dr. Urquhart's motion is one which I have supported ever since this subject was brought before the Association, but every time I have endeavoured to make my voice heard on the subject I have felt I was being regarded as reflecting upon the Committee in a more or less improper way, and was accused more than once of saying things and implying things which were disrespectful to the Committee. I had no intention of speaking to-day, but I think this motion is one which may be seconded and supported. I do not feel competent to express an opinion upon these tables. Personally they appear to me to be hopelessly elaborate, complicated, and laborious, but my impression may of course be wrong. I do think they must be submitted to the opinion of a scientific expert in statistics, and that is our only hope. I have no desire to discuss the tables; my feelings are pretty strong, and, I think, final. Still I would most willingly yield to Professor Karl Pearson or anyone of his eminence. I cannot, for my own part, accept those tables; and I do not think that in Scotland we shall accept them as they are. If this amendment of Dr. Urquhart's is not passed, and the meeting approves of the tables, and finally adopts them, it will mean that they will not be carried out in Scotland.

Dr. BOND.—It may be convenient for me to explain a little further the steps we have taken in consulting an expert or experts. The Committee have not overlooked that point, and have gone further at the desire of the Association, or at any rate of certain members of it. The Association will remember that before the previous report was submitted Dr. Chapman, one of our own members, and, I believe, an acknowledged statistician, had the tables under review, and was good enough to send us his criticism. In addition I have had more than one opportunity of discussing certain points with a statistician at Somerset House. He could not formally associate himself with us, neither have I his authority to quote any words which he used, but on several points we were distinctly guided by his views. I do not think that he would undertake the review of the tables as a whole. With regard to Professor Karl Pearson, I wrote to him, and his reply was that he would be glad to aid the Committee if it were in his power; but in a very kind and lengthy interview which he granted me I do not know that I gathered that he was willing to give a formal report on the tables. Of course he may be willing. He knew that we were still engaged on them, and before saying anything further, I gathered that he would like to see what we were doing. Therefore I sent him our further report, and such critical remarks as have reached us, and also the original tables now before the Association. But there has not yet been time for Professor Karl Pearson to reply.

Dr. NEWINGTON.—Dr. Urquhart mentioned only one way in which such a reference would be of use, and that is in regard to biology. It is a little extreme for him to want to hang up the system for a table or two. If you look through the report you will see the Heredity Table is optional, and there are certain suggestions with regard to alcohol, and in all these things we can get the best expert opinion. But that we should go to one who is an expert in certain lines and ask him to review tables which are drawn up on other lines, and many of which are administrative, I fail to see. A reference to an expert like Dr. Karl Pearson would mean the immediate eviction of all information as to transfers. (Hear, hear.) There is another point which I think we ought to take some exception to, and that is the statement which Dr. Carlyle Johnstone made just now, a most serious one to make. I cannot think it is made in a spirit which is calculated to at all facilitate the use and manufacture of tables. The statement was that he felt sure that Scotland would not adopt these tables unless they were altered to suit his views—

Dr. CARLYLE JOHNSTONE.—I did not say so. That does not, in the least degree, resemble what I did say.

Dr. NEWINGTON.—Dr. Carlyle Johnstone certainly said he felt that the tables as at present would not be generally adopted in Scotland.

Dr. CARLYLE JOHNSTONE.—I did not say that unless they were made according to my ideas and views they would not be adopted in Scotland. I never made the slightest reference to such a thing.

Dr. NEWINGTON.—What I was saying when he interrupted was in accordance with his views and those of others. And I think I am right in saying what I did, that Dr. Johnstone feels that Scotland will not adopt these Tables as they are.

Dr. CARLYLE JOHNSTONE.—Yes, that is so.

Dr. NEWINGTON.—What are we to make of such a statement as that? I cannot believe it. From a study of the reports of the Scottish Divisional Meetings held to consider these Tables I do not find any such unanimity which would justify him in saying that or justify any one person speaking in the name of Scotland.

Dr. WEATHERLY.—I think what Dr. Bond stated has thrown some light on what we ought to do. The Committee felt that they would like the opinion of Dr. Karl Pearson, and they have asked him for it. They have not got that yet, they are waiting for his report. It will be of no use if we pass the Tables to-day. They have asked for something which they have not got, and which Dr. Urquhart by his amendment wishes to get.

Dr. BOND.—The Committee have no promise of a definite report from Professor Pearson. He expresses his willingness to give advice and to aid the Committee on several points in the Tables. But at my interview with him, the difficulty, which any man who is not a medical man must feel, in understanding all in a moment many of the points in the report, was felt. I do not like to repeat the interview, because it was informal, but I do not think I am wrong in saying that, which must appeal to us all, the most able statistician in the world, if he is not a medical man, must find difficulty in this report, and even a medical man must have difficulty without some special knowledge of mental diseases.

Dr. URQUHART.—Did you read Professor Karl Pearson's article in the *British Medical Journal* in the end of May?

Dr. BOND.—Yes. I feel some diffidence in making the remarks I just have, but I think that Professor Karl Pearson would bear me out in what I have stated in connection with our interview.

Dr. URQUHART.—May I make a personal explanation with regard to Dr. Chapman? There is nobody who appreciates Dr. Chapman's work more than I do. Dr. Chapman, for many years, has been *the* statistical authority of the Association, and when anybody approached Dr. Chapman for the elucidation of any question of the kind he was always received with the utmost courtesy, and Dr. Chapman took the greatest interest in the questions which might be put to him. We know Dr. Chapman of old, but Dr. Chapman is now interested in quite another series of biological questions, he is not in touch with the present-day work of psychiatry, and nobody knows that better than Dr. Chapman himself. We want the latest information that the world of science can give. (Hear, hear.)

Dr. ERNEST WHITE.—Surely there is no absolute finality in these Tables. They are always subject to revision if passed to-day. (Laughter.) We have had these Tables before the Association for several years, and we ought to come to some definite conclusion now. I think that we should not be taking a false step by adopting these Tables, and if we find any of them are not working as we imagined they would, surely they can be revised at an early Annual Meeting. ("Heaven forbid.") I think we ought to support the Committee upon that ground.

The PRESIDENT, having put the amendment to the meeting, 7 voted in favour of it and 10 against. The amendment was declared lost.

Dr. URQUHART.—I move that the names of those voting be taken down.

Dr. CARLYLE JOHNSTONE.—I second that motion.

The PRESIDENT.—I first call upon those who are in favour of the amendment.

Dr. Urquhart, Dr. Carlyle Johnstone, Dr. Kidd, Dr. Boycott, Dr. Steen, Dr. Rotherham, Dr. Weatherly.

The PRESIDENT.—I now ask those who vote to the contrary to stand.

Those voting were Dr. Outterson Wood, Dr. Ernest White, Dr. Chambers, Dr.

Bedford Pierce, Dr. Hyslop, Dr. Drapes, Dr. Yellowlees, Dr. Bond, Dr. Hayes Newington, Dr. Robert Jones.

Dr. URQUHART.—I direct your attention to the general principles. There has never been a single discussion upon the general principles of this report until this morning. (Hear, hear.) The main principle adopted by the Committee, which gave rise to the greatest difficulty, is the division into direct and indirect cases, which the Committee sometimes call "not direct," and which they sometimes call "transfers." We are not quite sure what the Committee even yet mean by direct or indirect cases. What is a direct case? It is a case admitted under a new order and new certificates. And if you turn to the diagram—

The PRESIDENT.—May I refer you to the definition given by the Committee? They define direct admissions as "Persons received into an asylum on new certificates and a new order."

Dr. URQUHART.—That is exactly what I said, only I put the order differently. What constitutes these direct admissions? These direct admissions are the most heterogeneous mass of patients of all kinds to the exclusion of certain transfers, *not all transfers*, but certain transfers, because transfers are understood in a purely local sense, that is to say, in the sense which is employed by the Commissioners of England, and the Commissioners of Scotland, and the Commissioners of Ireland, returns of which we make each in our own countries every year. Now, these transfers are not a complete statement, but they are called "indirect" or "not direct" cases. It will be evident from the diagram, which I have submitted, that you may have first-attack cases and not-first-attack cases, first-admissions and not-first-admissions amongst the direct cases. So that the whole of the cases received into an asylum are not, in any way, discriminated for the purposes of science, they are merely discriminated for purely local purposes, that is to say, for the parliamentary purposes of England, Scotland, and Ireland. We make these returns, and we quite understand that they are essential for the purpose locally. These transfers are dealt with very briefly in the first report of the Committee, and in the amended report of the Committee they are inserted in the Tables to some extent. But still we have no complete statistics of the whole of the admissions. If one is making an inquiry into any point in reference to insanity it is absurd to suppose that we shall lose all count of the transfers. I fear that this has been an arrangement conceived under the shadow of the enormous asylums which have grown up of late years. The Committee say if every asylum gives an accurate account of direct admissions, you will have from other asylums an accurate account of the transfers. But the Committee do not expect, they surely do not expect, after all their experience of asylum reports and the errors that are found in statistics of the present simple type, that they can ever take asylums reports and condense them into one accurate return. (Hear, hear.) If you venture to investigate any question from asylum reports you must be careful to select the asylums from which you draw your information, and there are many asylums which give no statistical information at all. Further, if we do not construct a statistical report which is correct for purely local purposes what is the use of our printing it? I agree with Dr. Kidd that it would be preferable to appoint a permanent Statistical Committee who would receive full information of transfers and direct cases, and deal with them as the Association may think fit, but is it to be expected that asylum authorities will make returns exclusive of transfers as descriptive of their annual work in the vain hope that somebody else will make good the omissions? The Committee themselves express the gravest doubt of getting any information from any asylum with regard to any transfers. That is to say they cannot get from the asylums from which transfers come definite reports upon the condition of these cases fit to find place in a statistical inquiry. It does not matter to me personally, because under no consideration whatever shall I omit transfers from my annual report. Further, on no consideration whatever shall I undertake three sets of Tables for direct cases, indirect cases, and totals. The scheme is a lop-sided arrangement to suit official purposes. Very well, let us suit official purposes, as we do every year of our lives. What does the Committee want in regard to indirect cases? The only thing, in my opinion, which is of the slightest interest is the recovery-rate of these indirect cases. Let us, therefore, regard these cases as constituting a side issue separately stated only for that purpose. If you turn to the second diagram you will understand the proposal which I laid before the Committee,

and which I ask the Association this morning to decide one way or the other. By this means the whole scheme is simplified. In the last edition of the Committee's report they have accepted many suggestions, they have done their best to enter all that could possibly fit in with their general plan, and if the report is complicated, as we have heard this morning, it is complicated by the deluge of suggestions that everyone who is mad enough to have any interest in statistics has showered upon the Committee. (Hear, hear.) My proposal is a mere plea for simplification. By the second diagram I propose that all the cases coming under review should be considered from the point of view of heredity, and from the point of view of environment.

The PRESIDENT.—Are you moving an amendment to that effect?

Dr. URQUHART.—My amendment is that, except for the purposes of recovery-rate, there shall be no notice taken of indirect cases separately. That is to say, a consideration of all the cases admitted without addition, and without deduction. I similarly regard as a side-issue the question of "persons" admitted, and the recovery of these "persons" I regard also as a side-issue. Again, the discharge and death tables would be similarly simplified by the consideration of all the cases in one group to the end that they may be separated into those who have recovered, those who did not recover, those who died, and the residue. Is the method of the Committee the method which is to be adopted this morning, or are you to simplify these tables by the omission of all separate reference to indirect cases?

Dr. CARLYLE JOHNSTONE seconded the amendment.

Dr. BOND.—I have listened very carefully to all that Dr. Urquhart has said, and I cannot help feeling more and more convinced that in reality we are in considerable agreement. Dr. Urquhart said "that there is nothing else about the transfers of interest except in reference to the recovery-rate." That is almost identical with the Committee's opinion at the very outset of their work, and the lines on which they framed their first report. Add to that one thing, and you have expressed one of the Committee's principal feelings in the matter, namely, that transfers are of importance only, or almost only, when you come to frame the residue tables. Take a man who has been under certificate in an asylum, and transferred to another asylum at the age of seventy. The record as a scientific fact of his age being seventy is, *qua* the admission, nothing; it is of no scientific value, and therefore the Committee decided in their first report that that man's age should not appear in their admission tables; but it is of importance to the individual asylum that they get an additional man in the senile period. It is of importance then, and therefore he was included in their residue tables, and, I think, quite rightly so. On that argument the Committee carefully separated the cases primarily, so as to differentiate "direct" from "transfers." Then Dr. Urquhart called the direct admissions a heterogeneous mass. Yes, they are a heterogeneous mass, and the Committee, recognising that, carefully divided them into certain groups. They screened off the congenitals from the others. Having screened off the congenitals, the balance is also a heterogeneous mass. They include "first attacks," which are really fundamentally important for statistical purposes; and they also were carefully screened off. But there are other cases who may have had two, three, or more attacks, who had to be screened off; and in trying to do that, we came across cases in connection with which there was no information as to whether it was their first or second or their third attack; and thus there is a fourth column to include those. It is because they are a heterogeneous mass that the Committee have dealt with them in the manner they have. Dr. Urquhart used the words "to suit official purposes." The whole object of the tables has been to separate the official side of the question, and to so divide the cases that they can be examined for scientific purposes. Dr. Urquhart thinks that our division into direct and transfers is conceived under the shadow of the largest asylums. There may be some truth in that; but after receiving a letter he kindly wrote me, in which he mentioned that view, I did take the trouble to consult the Commissioners' Blue Book, and I found that the percentage of transfers stated in our first report to be eleven is gradually increasing, and in the last Blue Book—that may be an accident—it is something like 24 per cent. of the whole admissions for England and Wales, showing the vital importance of separating transfers from the others for scientific purposes. I endeavoured to see which asylums contained those. It is true the large ones had a very fair share, but smaller asylums had them

too. There is a table which the English Commissioners supply showing to which asylums these transfers belonged.

Dr. HAYES NEWINGTON.—The real reason for knocking off the transfers is that it is all very well for people connected with small asylums where there is a large proportion of private cases, cases about which one can see friends. But where you get 400 or 500 cases from transfers only, and where all the information you become possessed of has possibly been obtained only through the relieving officer, the information is not only useless, but it is dangerous, because you give the same value to uncertain facts as you do to those which you have ascertained yourself at the cost of trouble and thought.

Dr. URQUHART.—When the leader of this house stands up at the eleventh hour and says that false information is given from relieving officers, I would ask, what is the good of proceeding further with the discussion?

The PRESIDENT.—The amendment is, "That the detailed statistical information for indirect admissions shall be carried no further than the recovery-rate of these cases, and that one set of tables only should be prepared, inclusive of all cases."

Dr. CARLYLE JOHNSTONE.—I think Dr. Urquhart's proposal is that indirect admissions as indirect admissions should only be separately treated with regard to their recovery, and that in all other respects they should be grouped with the so-called "direct admissions." That is an amendment which I shall be glad to second, now that I have heard it read. I agree with all Dr. Urquhart has said. His diagrams are so very graphic and clear that I do not think one requires to say anything further with regard to them. If members have taken the trouble to consider them, they will see at once that this arbitrary division by the Committee into direct and indirect groups has this result, that each group includes all the different kinds of insanity, both groups including the same and different kinds; that is to say, one group is in no respect exclusive of the other group, but each of those two groups includes the first attack, congenital, recent, chronic, curable, incurable, and every sort of case. I think, as I said at the November meeting, nothing could be more unscientific, and although apparently the Committee is endeavouring to satisfy official requirements, there is a certain limit beyond which science cannot go in yielding a principle to official requirements. Personally, I am not prepared to go that length.

Dr. BEDFORD PIERCE.—I think this subject was pretty thoroughly discussed before. I think one justification for the Committee's recommendation is that we ask for particulars respecting patients which the superintendents themselves have investigated, and not for second-hand information. In a large number of transfers it is impossible to get first-hand information, and that is one justification and reason why only the patients that we ourselves have admitted under a new order should be taken as the basis of our tables. A more important reason is, that the same person under the same order should not be counted in two asylums, and so falsify the statistics of the country. If I wanted to inquire into statistics on insanity in the West Riding of Yorkshire, I ought to be able to feel that I was not counting some persons twice.

Dr. CARLYLE JOHNSTONE.—But a person is counted twice if he is transferred from Scotland to England.

Dr. BEDFORD PIERCE.—Transfers across the border are so very few that they are not at all likely to vitiate the statistics.

Dr. NEWINGTON.—It is simply following the law.

Dr. YELLOWLEES.—It seems to me that if we are to have tables at all it is preposterous not to expect to receive from them, that they should not convey, information of a more definite and exact character than the grouping of all our admissions together. It seems to me it is going back. It certainly is not going forward. Dr. Urquhart says that they are a heterogeneous mass, consisting of all kinds of people. So they are, and realising that, realising exactly what he has said about them, we tried to separate them, and we do separate them. Surely it is very important to do that. We separate them into direct and indirect. We give transfers, first-attack, and not-first-attack, and it is for the Association to say whether that is worth doing. If it is not worth doing we have taken a lot of trouble for nothing. (Hear, hear.) But it will diminish immensely the value of your tables if you do not have it. ("Question.") There is no question at all about it. The man who is insane for the first time is a more important case medically; and more

important for the information we get from him, by far, than one who has had a previous attack. And if you limited the tables to that one thing alone they would be very valuable tables indeed. Perhaps it would be better than having all these, but you cannot do that. Some people are very rabid for complete statistics, and here is Dr. Urquhart who wants slumped statistics, and yet when I speak of first-attack cases, he is in agreement with me.

Dr. URQUHART.—How delightfully Dr. Yellowlees has argued our case. It is most important to find out about first attack cases, but if they become transfers they are of no importance.

Dr. BEDFORD PIERCE.—They have been taken already.

The PRESIDENT having put the amendment to the meeting, 2 voted in favour and 12 against.

Dr. STEEN.—I move, "That the statistical tables be referred to the Committee, and that they report one year hence, and that in the meantime a ballot be taken by post of each member of the Association as to whether he or she is in favour of the tables being passed as they now stand." There are twenty members of the Association here, and the Association numbers 600 or 700 members. Shall we decide on these tables which will regulate the Association for the next ten years without the other members having a voice in the matter? They certainly have a right to be present if they have had a notice of the meeting, but they may not have been able to come. I feel that there is a very strong opinion in this Association against these tables altogether. (Hear, hear.) There will be a great waste of time in preparing them without any good whatever resulting to the Association; and I strongly feel that if the registers as recommended by the Committee, both Civil and Medical, be kept, that the Committee will have done a great deal of good work for the Association. I think the Committee have done very valuable work also in showing what tables should be prepared by those who are keenly interested in statistics. But that every asylum should prepare these tables I do not think anybody desires. Therefore I think each member of the Association should be asked his opinion by post.

Dr. WEATHERLY.—I have very much pleasure in seconding that. I think it is a serious matter that we should accept these tables to-day, that there should be any finality about them, at least for some years. It is equally a pity that the objections to principle which were raised to-day were not raised a great deal earlier. The feeling is very strong, and the minority in favour of having the tables referred to some further expert is a very large minority.

Dr. NEWINGTON.—There is one fact which has been forgotten, that is, that the general principles of these tables were discussed at very considerable length at the meeting last November.

Dr. URQUHART.—Never.

Dr. NEWINGTON.—The tables and general principles, as shown in the report, and as inferred from the tables, were discussed by a large meeting, by medical superintendents who have been through the statistical mill. I call your attention to the fact that this meeting is an extremely small one, and that I interpret as a compliment to the Committee (oh), showing that those who are absent think the Committee has done its work pretty well, and are inclined to leave the matter in their hands.

Dr. URQUHART.—Will you point out in the report where the general principles were discussed?

Dr. NEWINGTON.—In our first report, which was put up in November, we state what our broad principles were. (Reads Report.) All these principles were adopted.

Dr. URQUHART.—There is nothing in the report about the discussion of any general principles whatever.

The PRESIDENT.—The amendment before the Committee is that the statistical tables be referred back to the Committee.

Dr. URQUHART.—Might I ask if the effect of the success of that amendment will be that the discussion will be closed?

The PRESIDENT.—It depends upon what the view of the Committee is. If the Committee are willing to receive them back, and it is carried that they do receive them back—

Dr. URQUHART.—I appeal to the mover of the amendment not to press it at the

present moment so that we complete the discussion of the report. Some of us have come a considerable distance for the purpose.

The PRESIDENT.—If that resolution is carried we do not discuss the matter again to-day.

Dr. CARLYLE JOHNSTONE.—Will the mover be allowed to put it later if he withdraws it now.

The PRESIDENT.—The business will never finish if we do that. If the mover and seconder wish to withdraw it it will depend on the meeting whether it will sanction their withdrawing it.

Dr. ROBERT JONES.—I hope Dr. Steen will ask permission to withdraw it, because if the resolution were carried one can see complications ahead. The Committee might resign, and then the whole thing would be left.

Dr. STEEN.—I should like not to withdraw it, but to postpone it.

The PRESIDENT.—It is of no use discussing the tables if at the end the whole matter is to be referred back to the Committee. The resolution ought to be either withdrawn or put.

Dr. ERNEST WHITE.—It could of course be withdrawn and reintroduced.

Dr. STEEN.—I do not withdraw it.

The PRESIDENT.—Very well. I put it to the meeting.

6 voted in favour and 10 against.

Dr. CARLYLE JOHNSTONE.—I ask has "indirect" the same meaning as "transfer"? Apparently on p. 4 "indirect" includes transfers and some other groups. Subsequently a transfer seems to be equal to indirect.

Dr. NEWINGTON.—"Indirect" certainly includes "transfers," transfers forming the most considerable portion of indirect admissions, the balance being lapsed orders, and so on.

Dr. CARLYLE JOHNSTONE.—What is the meaning of "transfer" on p. 17 and the same word on p. 18? Does "transfer" mean indirect?

Dr. NEWINGTON.—No. I can give you the reason for that. First of all you get in the Civil Register all admissions; then on the Medical Register only direct admissions; then under transfers you get the actual transfers; but that does not sum the whole of the admissions. There are still the readmissions after discharge for statutory reasons.

Dr. CARLYLE JOHNSTONE.—So the totals in these tables are not the total admissions?

Dr. BEDFORD PIERCE.—It does not say total admissions. On p. 17 the word "indirect" does not appear.

Dr. URQUHART.—Then this table does not represent the total admissions to the institution.

Dr. BOND.—Not the grand total.

Dr. NEWINGTON.—It represents the total persons.

Dr. URQUHART.—It does not say so.

Dr. NEWINGTON.—It excludes the person who is turned out for statutory reasons at five minutes to twelve to be admitted at five minutes past twelve.

Dr. URQUHART.—Is it preferable not to have the total number of persons?

Dr. NEWINGTON.—In the Civil Register, yes, but not in the Medical Register.

Dr. URQUHART.—It is preferable that Table B2 should not represent the total number of cases.

Dr. NEWINGTON.—Yes.

Dr. YELLOWLEES.—You have the total number of admissions in this Table.

Dr. URQUHART.—No.

Dr. YELLOWLEES.—You get the persons, but the man who would be counted again by a technical readmission is already entered in this Table for his first admission, and his second admission is not repeated, because it is the same individual, and he was only out a few hours. What kind of statistics would you have if such cases were frequent and always entered as two admissions.

Dr. URQUHART.—Do I understand that the term "Direct Admissions" on page 17 means persons and not cases, and why is it not so stated?

Dr. BOND.—There is some confusion in the point at issue. Dr. Urquhart's question is, if the same man is admitted twice over in the same year, having been discharged once recovered, does he count one or two under Direct Admissions? He counts two.

Dr. NEWINGTON.—What I meant by persons was, that it excludes the man who is admitted twice because his certificates were wrong.

Dr. CARLYLE JOHNSTON.—It is the simple fact that a single-care case in England is a transfer, and in Scotland is a direct admission. John Brown in England is indirect, and in Scotland is direct. And there are a great many John Browns. Every one in Scotland is a direct admission, every one in England is indirect. And that appears to show the utter futility of this arbitrary arrangement.

Dr. BEDFORD PIERCE.—I think John Brown in England is a very rare person.

Dr. URQUHART.—It will be understood that it is proposed we should use these tables in Scotland, and therefore we ought to know something about them. Are Darenth or Caterham Asylums within the meaning of the Act in England? If you turn to the Discharge Table C1 you will see that the metropolitan asylums are especially named there, but they are not named in the page referring to definitions.

Dr. ROBERT JONES.—Where the patient is discharged from the asylum he is discharged absolutely, and he is retained in the metropolitan asylums as if he were in a workhouse infirmary.

Dr. URQUHART.—He is a direct case; he is not a transfer.

Dr. NEWINGTON.—The Committee quite recognise the difficulty on the point. There must be always a little want of absolute accuracy in all these points, a little copper with your sovereign, a little chicory with your coffee. We must discount small differences like that.

Dr. URQUHART.—Why is it not included in the definitions, so that everybody shall know it and act in unanimity.

Dr. NEWINGTON.—It is included under the head of transfers.

Dr. URQUHART.—There is no remark upon metropolitan asylums whatever in the definitions.

Dr. NEWINGTON.—In England they are under different authority.

Dr. URQUHART.—Under this definition of direct admission a patient under private care admitted to an asylum is regarded as a direct admission in Scotland, but in England he is regarded as an indirect admission. (No.)

The PRESIDENT.—They may be transferred from single care under the same order.

Dr. NEWINGTON.—There are only about 400 single-care patients in England; they are a negligible quantity.

Dr. EASTERBROOK.—But in Scotland, where there are nearly 3000 certified patients in private dwellings, and nearly 1000 certified patients in lunatic wards of poorhouses who, when sent to an asylum, are required to come in under a new order and new certificates, and would be regarded therefore, as direct admissions, to the falsification of medical facts. I suggest that the definition should include words showing that there has not been previous certification for the particular attack of insanity.

Dr. URQUHART.—What is meant by the words "from asylums." Does that include metropolitan asylums?

Dr. NEWINGTON.—There is no reason why we should put in all the workhouses.

Dr. EASTERBROOK.—I suggest that if a clause were added to the definition of direct admissions it would specify all cases in England, Scotland, and Ireland, namely, "Direct admissions are persons received into an asylum on new certificates and a new order, and on account of an attack of insanity for which there has not been previous certification." That covers everything, and makes it definitely clear. You eliminate the boarded-out cases in Scotland, you are dealing with fresh cases of insanity, which is what you want to make sure of. These patients may have had any number of previous attacks, but in relation to the existing attack they have not already been certified.

Dr. YELLOWLEES.—I do not see why the Committee should have any objection to that being added to the definition of direct admissions.

Dr. NEWINGTON.—It might be dangerous to accept words of that sort without very full thought. I believe the Committee would be willing to adopt the suggestion if found to be practicable.

Dr. URQUHART.—I move that the definitions be remitted to the Committee for amendment. We have no information as to how we are to return admissions from poor-houses in Scotland. Poor-houses receive chronic harmless patients only from asylums. They are sometimes re-transferred to asylums from poor-houses, and new certificates and a new order are then required. Are they direct admissions?

These questions have already been submitted by me in my communications to the Committee, and they have not been answered. Directions are essential to enable us to make these returns properly. We do not yet know whether a patient coming from single care in Scotland is to be regarded as direct or as indirect.

The PRESIDENT.—Do I understand you want to refer the definitions to the Committee for report again.

Dr. URQUHART.—For amendment.

The PRESIDENT.—An amendment by the Committee would have to come up again before the Association, and this is the last adjournment of the 1904 annual meeting; and I do not know that it is open to us to continue the Committee indefinitely. We cannot adjourn the 1904 annual meeting to receive their report.

Dr. BOYCOTT.—To the 1906 meeting.

Dr. YELLOWLEES.—I admire very much Dr. Urquhart's persistence, and the care with which he has gone into every minute point in this matter. But I think there ought to be a limit to that kind of thing. Dr. Urquhart appears to be one of those delightful men who never know when they are answered. I think that the clause which has been suggested by Dr. Easterbrook—and which he ought to have suggested at one of our meetings, as he is on the Committee—meets Dr. Urquhart's difficulty about what constitutes a direct admission. Dr. Urquhart talks about direct admissions from workhouses. A workhouse patient cannot, in Scotland any more than in England, be received into an asylum without a new order, and I think what Dr. Easterbrook has added promptly and completely meets Dr. Urquhart's difficulty. The case having been already certified insane, it cannot be a direct admission. That is the meaning and significance of the suggestion.

Dr. EASTERBROOK.—Already certified insane during the existing attack as previously submitted by me in Committee.

Dr. YELLOWLEES.—Therefore it is clear it is not a direct admission.

Dr. CARLYLE JOHNSTONE.—But that alters the principle of division, and will alter the whole scheme of the Tables. So I agree with Dr. Hayes Newington in pointing out that it requires careful consideration.

The PRESIDENT.—Dr. Easterbrook has moved, as an addition, "Direct admissions are persons received into an asylum on new certificates and a new order on account of a distinct attack of insanity for which certification has become necessary for the first time during the attack."

Dr. KIDD.—For the purposes of discussion I second it.

Dr. URQUHART.—I agree with Dr. Hayes Newington that it is extremely difficult and dangerous to accept any definition on the spur of the moment, and therefore moved for a remit to the Committee.

Dr. NEWINGTON.—There is one reason why I think that is absolutely impossible. You say "For which there has not been previous certification." A patient comes from Leavesden into a county asylum, and we say that he must be treated under law as a direct admission, but because he has been treated and previously certified for the same attack the amendment would compel us to treat him as "indirect."

Dr. BOYCOTT.—The case might be sent from a London County Council asylum to Caterham, having been certified by the Medical Superintendent as fit for the workhouse, and he may be sent back to the asylum re-certified; but he has already originally been certified under the existing attack of insanity.

Dr. EASTERBROOK.—Unless these definitions are interpreted in the *medical* sense it will be impossible to satisfy legal requirements. These Tables are medical, not statutory.

The PRESIDENT.—I feel strongly that we cannot refer these things indefinitely to the Committee for report again. There is nothing for them to report to unless they are re-appointed to-morrow till another Annual Meeting. I now put this amendment.

Dr. EASTERBROOK.—Is it an amendment? I do not want it to be voted on as an amendment; it is more a suggestion than an amendment.

The PRESIDENT.—It must be moved as an amendment and put.

Dr. BEDFORD PIERCE.—I should not like it to be recorded that the Committee entirely approve of this amendment. I see many difficulties, and I think the original wording is clearer.

Dr. NEWINGTON.—If you take the term "direct admissions" as it stands there, it excludes everything which you feel a difficulty about.

Dr. URQUHART.—No.

The PRESIDENT.—There is evidently great difference of opinion, therefore this amendment must be put to the meeting.

Dr. EASTERBROOK.—The whole object of the Statistical Tables is to ascertain medical truth about insanity, and especially about "direct admissions," which in my opinion should signify those who are labouring under fresh attacks of insanity. As the definition stands it does not ensure medical accuracy.

The PRESIDENT.—I now put the amendment.

There voted in favour, five; against, six.

Dr. HAYES NEWINGTON.—If there is any difficulty when it comes to be worked out for each division of the kingdom, surely we can make a special motion, before the next annual meeting, to modify this.

Dr. URQUHART.—I very much object to that. Let us have some finality. We have squeezed out certain definitions here, at an immense loss of time. Why cannot the Committee give us these definitions in the instructions which they promulgate? That is all we want. Let us know what it is that the Committee ask of us.

Dr. BEDFORD PIERCE.—We do not say what are transfers exactly; everything else is not a transfer. Consequently it is obviously inferred that metropolitan asylums are places from which patients cannot be transferred. But if we are to specify things which are otherwise, institutions not for the reception of the insane, we shall have to put the whole list of institutions in, "except the following."

Dr. URQUHART.—Especially it might be explained why it is that single-care in England, which is certificated single-care, is treated in one way, and single-care in Scotland, which is also certificated, in another way. I am not referring to the incipient insanity cases, but to the 2600 boarded-out cases. Why this difference in statistical methods?

The PRESIDENT.—Because there are different laws.

Dr. NEWINGTON.—I made a suggestion, with the consent of the President.

Dr. CARLYLE JOHNSTONE.—The whole of the terminology applies to England, and the report has not been adjusted to Scotland.

Dr. NEWINGTON.—Will you give concrete instances of that?

Dr. CARLYLE JOHNSTONE.—I could give many instances.

Dr. BOYCOTT.—If we leave this to the Committee it will be with certain amendments which the Committee are going to make. I understand we are so leaving it.

Dr. NEWINGTON.—My recollection of it was that an amendment was moved to the definition, and the amendment was defeated; therefore the definition stands. But I think the Committee undertook that if a grievance did arise we would take steps to report to another meeting for rectification.

Dr. YELLOWLEES.—Dr. Carlyle Johnstone is entirely mistaken if he thinks that in this matter we have been subservient to the English Commissioners. If his remarks did not mean that, they sounded very much like it. If he is under that misapprehension, I would like to tell him that it is not the case. We have worked under no known bias. We are extremely anxious, if we can, to carry the English Commissioners with us, and we have been received by them with the utmost courtesy. They have listened to us and we have listened to them; and I am sure they have gone far further in the way of meeting us than we have gone in meeting them; I am sorry to hear the suggestion that there has been anything of that kind in the Committee's doings.

Dr. CARLYLE JOHNSTONE.—That has not been suggested by me.

Dr. URQUHART.—Dr. Yellowlees' remarks are not germane to the subject. There are certain conditions affecting Scotland which have not been properly explained in these definitions. We are endeavouring to amend these defects.

The PRESIDENT.—You have had the opportunity of putting that, but the Committee may not have been able to adopt it. We shall now consider the Tables *seriatim*.

TABLE A I.

The PRESIDENT.—It is understood that all the Tables have been moved by Dr. Yellowlees. If anyone has any amendments, now is the time to move them.

Dr. BOYCOTT.—This might very well be combined with Table II. They both

give the same information, and Table A 2 is in a rather better tabulated form. Practically the only information not in Table A 2 which is in A 1 refers, in the first place, to the number on the asylum registers on January 1st, and a column to that effect might be added to Table A 2. With regard to the column for Voluntary Boarders, my own feeling is that as the majority of county asylums do not receive these patients it would be well to omit reference to them, and to leave those asylums which have voluntary boarders to use the columns prepared. With regard to the annexe relating to certified persons, it is absolutely fallacious to deal with these numbers year by year. And it is useless, because if a person is discharged in December, and readmitted in January, he counts as two persons in summarising tables over a series of years. If he is discharged in December and readmitted in December he counts as one person; but if he is discharged in December, and readmitted in January, he counts as two persons. I suggest that it be incorporated in Table A 2.

Dr. KIDD.—I second Dr. Boycott's amendment.

Dr. BEDFORD PIERCE.—The argument in favour of the Table as it is is that it is simpler than the selection of a series of figures at the end of a large table. The objection, I think, only involves a matter of printing.

Dr. YELLOWLEES.—Those two Tables are intended more for the public than for the profession.

Dr. Boycott's amendment was then put, and there voted in favour 3, against 7.

Dr. CARLYLE JOHNSTONE.—I move that a distinction be made between first admissions and not-first-admissions in the individual asylums.

Dr. DRAPES.—What are the Committee's grounds for removing that from the previous Tables?

Dr. BOND.—They removed it on two grounds. First, being a general table, it was removed to simplify the Table. The second reason is, that steadily through the set of Tables we have used the term "first-attack" in preference to "first admissions." The term "first-attack" expresses a scientific fact, and is different from first admission.

Dr. CARLYLE JOHNSTONE.—Does Dr. Bond object to the division of persons and cases?

Dr. BOND.—No, we do not object, but we have carried it out in more scientific tables.

The PRESIDENT.—It was provisionally accepted in November. I now put the amendment.

On being put to the meeting, 5 voted in favour, 7 against.

Dr. CARLYLE JOHNSTONE.—Why do the Committee wish to distinguish between persons and cases for one year, and object to so distinguish for a term of years?

Dr. BOND.—I believe we were under the same pledge to add this item. In our Report it did not appear.

Dr. YELLOWLEES.—Yes. Somebody was very anxious for an optional table; and if Dr. Urquhart desires that table there it is.

The PRESIDENT.—We are on General Table A 1; is there any further amendment?

Dr. BOYCOTT.—What is the reason for this information about certified persons applying to the actual year in question? Would it not be better to have that summarised for several years?

Dr. YELLOWLEES.—I do not see how Dr. Boycott's difficulty can be met, unless we make our statistical tables for a longer period than one year. If we could make our tables for three years or five years it would minimise that difficulty. The information was put in by earnest desire—for the Committee have been guided by the earnest desires of other people—at the foot of Table 1; and Table A 3 gives that information over a series of years, so that those who are devoted to that Table can give it more fully than the foot-note requires. It is a question whether it is not better to count the attacks of insanity, rather than to count the individuals that have them. If a man has acute rheumatism twice a year, you do not regard him as once ill. And why should you do so when you are dealing with insanity? The analogy of crime, which has been mentioned, has nothing to do with it. Insanity is disease, crime is wilful evil.

Dr. BOYCOTT.—If the Statistical Committee are going to consider any points they might consider this, and report next time.

On being put, 9 voted in favour of the Table as it stands, and 6 against.

TABLE A 2.

Dr. URQUHART.—We desire to get the information which we have had hitherto. We still desire to record admissions and readmissions in two extra columns, from which the Optional Table A 3 is compiled. I move accordingly.

Dr. CARLYLE JOHNSTONE.—I second it for the same reason.

On being put to the meeting, 4 voted in favour of the amendment, 7 against.

Dr. BOYCOTT.—There is a column showing total number under treatment. I do not know what the scientific value of it is, and I think it might very well be omitted. It increases the size of the tables more than necessary. I propose that it be omitted.

There being no seconder, the amendment was not proceeded with.

Dr. URQUHART.—I object to the third last column, calculating the total recoveries on a moiety of the admissions. It is not justifiable. I move for omission.

Dr. CARLYLE JOHNSTONE.—I second.

Dr. NEWINGTON.—The adoption of that amendment would mean asking the Commissioners in England to tear up their system altogether. It has been going on for many years. It is as right as any other way. If individually we get the advantage of including recoveries of transfers, we have had the disadvantage of losing cases by transfer, which may have recovered elsewhere. On the average altogether we come to very much the same results. But when you add asylum to asylum you get the absolute truth; and that is the reason it has been adopted in England.

Dr. URQUHART.—That is an argument for the official report of the Commissioners, which is justifiable, but it is not an argument for this our purpose.

Dr. NEWINGTON.—But the Commissioners have their own experts, and they know more about statistics than we do as a body. With the advice and experience they have got and the practice they have had they know what they are about better than we do, and I should be disposed to follow the Commissioners.

Dr. DRAPES.—It is unnecessary, but it cannot lead to mistaken ideas in the matter, because we have the percentage of the total recoveries on the total admissions, so nobody can be deceived. It cannot do us any harm.

On being put to the meeting, 3 voted for omission, 9 against.

Dr. BOYCOTT.—In the last column but one, "Percentage of recoveries yielded by direct admissions on the direct admissions," you might add, "Excluding congenital cases." I move the insertion of those words.

Dr. STEEN.—I second that.

Dr. BOND.—There is much force in what Dr. Boycott says. We considered the point, but it opens up questions as to the exclusion of other cases which are not absolutely, but almost certainly, irrecoverable, *e.g.* general paralytics.

The amendment was then put to the meeting, when 3 voted for and 7 against.

Dr. BOYCOTT.—I move for the addition of a column showing recoveries on first-attack admissions.

There being no seconder the amendment dropped.

The PRESIDENT.—I put it that Table A 2 be approved.

Nine voted in favour, 5 against.

TABLE A 3.

Dr. URQUHART.—Why are the transfers omitted by the Committee? I recognise that the Table is optional, but those who are interested in the differentiation between persons and cases should have opportunity. Dr. Yellowlees said that analogies had nothing to do with this differentiation. I do not agree with him. The number of attacks of rheumatism occurring in England is not very important, but it is very important for us to know how many persons have suffered from rheumatic attacks. I ask you to recognise that we are dealing with individuals. You regard disease as an entity, that is a retrogressive step in medicine. The number of crimes occurring is one question, the number of criminals who commit these crimes is another. I move that Table A 2 be reproduced exactly in the present series.

Dr. YELLOWLEES.—That was the intention of the Committee because so many were anxious to have it retained as optional. I am not aware of any change.

Many men have used it faithfully, like Dr. Urquhart, and if this Table departs from the old form it is a mistake.

Dr. CARLYLE JOHNSTONE.—I second the amendment.

Dr. EASTERBROOK.—There seems to be a difference in practice in the ways in which it is actually made up. For instance, some people take persons, say in the year 1869 and the persons in 1870, and so are dealing with the persons *quod* each year, and arrive at total persons by simply adding the persons for each year. But, in some asylums, if X— appears in 1869 and again in 1875, and again in 1896, they eliminate him in those subsequent years. This second way is a more laborious method, but there are some who will take that trouble, so that their total at the foot of their table means the total number of different persons who are referred to during all the years covered by the Table. But there should be a clear statement at the foot of the table as to which is the correct way of interpreting it.

Dr. CARLYLE JOHNSTONE.—The second way is the only correct way, but how are you to obtain the numbers of these persons in the new tables?

Dr. YELLOWLEES.—Dr. Easterbrook's difficulty was one of the reasons which led the Committee to make it an optional Table; it was rarely and variously done.

Dr. BOYCOTT.—I have an asylum report in my hands. It shows recovered patients 14·18 *per cent.* of the patients admitted, and, omitting persons transferred, 20·23 *per cent.* I do not see that there is any value in stating that 14·18 *per cent.* of the patients admitted have remained well, because that asylum may have hundreds of transfers one year, and in another year none at all, and such information is useless and absolutely misleading. Another point in regard to which this Table should be revised is not only in cases relapsing and being readmitted to the same asylum, but it should refer to cases relapsing and going elsewhere. The statement that so many patients have remained well is absolutely erroneous.

The PRESIDENT.—It has been moved and seconded as an amendment that the Table be restored to its original form.

On being put to the vote the amendment was carried.

Dr. CARLYLE JOHNSTONE.—Will the Committee now tell us how we are to get at the number of persons?

Dr. BOND.—Any superintendent, from year to year may publish records of this kind. The Registers, as they stand, provide full details for getting out the Tables as a set such as we recommend, excepting these optional Tables.

Dr. BOYCOTT.—I propose, sir, that the Committee be requested to amend Table A 3 by including cases which are relapsed and sent to other asylums.

Dr. ROBERT JONES.—These relapsed cases are very difficult to trace. The London asylums take special pains about the registration of relapsed cases, and there is a standing resolution for the London asylums that cases discharged recovered, should go back to the asylum whence they came when relapsed. Although this resolution is in vogue, I find Claybury cases may have gone to some of the others, and cases from other asylums may be received into Claybury, because the relieving officer, who is responsible for filling in these details, knows nothing about the previous history of the patient, and consequently fills up the form "no previous attack," when in reality many cases are afterwards found to be relapsed cases. I find that during the last twelve years 13·2 *per cent.* of all discharged as recovered have relapsed; that is to say, they have relapsed during the twelve years covered by the table. If you take a very long period—and that is the essence of statistics, namely, to get a correct record of a large number of facts based upon collective investigation,—if you take a period covering say, thirty years you will have a relapse rate from the recoveries of 27 *per cent.* It is practically impossible to trace many of these, and it is a pity to have tables where we think we show these, and find afterwards that the conclusions are fallacious. I am in agreement with Dr. Boycott as to the necessity for indicating relapses.

Dr. CARLYLE JOHNSTONE.—The Table says "Recovered persons sane at the present time so far as the statistics of this asylum show." I do not think we can go further than that; it is correct as far as it goes.

The PRESIDENT.—I now put it that Table A 3, as an optional table, be accepted. (Carried.)

TABLE B 1.

Dr. NEWINGTON.—I move that it be adopted. It has been altered to meet a certain amount of objection, and I do not think there can be any other points to raise in connection with it. (Carried.)

TABLE B 2.

Dr. URQUHART.—I rise to point out that this table is not a correct account, because it comprises direct admissions and only part of the indirect admissions, therefore it will not balance the former tables headed "Direct and indirect admissions;" and I move that the transfers be dealt with as shown in the table, and that lapsed orders, etc., be inserted in a column by themselves so as to make the table balance.

Dr. CARLYLE JOHNSTONE.—I second it.

Dr. YELLOWLEES.—It would be sacrificing truth to arithmetic to do that. It is true there are only direct admissions and transfers; it is true there is a third category of patients, those who have been admitted and who are readmitted on account of a lapsed order. The interval between discharge and readmission is an hour or two, perhaps, and they have already been entered as direct admissions. They are already counted in this table, and to count them a second time because they had technically been re-admitted would be vitiating the whole table.

Dr. URQUHART.—The result of that is that we are not to be allowed to enter the total admissions in this table.

Dr. BOND.—There could be no mathematical objection to putting in another column to show the statutory readmissions, and it could not alter what we have already provided they are in another column. The only thing is, is there any advantage just for the sake of balancing figures?

Dr. URQUHART.—Is it not better that you should be able to balance your figures? Is it not a check upon them? Anyone may make a slip in compilation, and this would be a check upon accuracy.

Dr. NEWINGTON.—It would necessitate two columns; one for the cases to be so added, and another for a grand total. There should be no risk of the latter being taken as the basis of the calculations.

Dr. BOYCOTT.—I propose that the particulars about transfers be omitted altogether. I do not know what scientific value it would be to get to know whether a certain number of persons, who have perhaps been in asylums twenty years, have been transferred. At the end of a few months they may be transferred back, and the same process will have to be gone through. I maintain there is no scientific value attaching to such a record, and I therefore propose that the particulars referring to transfers be omitted.

Dr. STEEN.—I second that.

Dr. NEWINGTON.—That amendment expresses very much the feeling of the Committee when we first started.

Dr. URQUHART.—I agree with that, because the Association has decided that the attention shall be directed to direct admissions to the exclusion of transfers. That is the general principle, and now I should think it would be better, having accepted the general principle, to leave out the transfers altogether. Let it apply to all the Tables.

The PRESIDENT.—The amendment is to omit all these columns referring to transfers in these Tables.

Dr. NEWINGTON.—And the total.

Dr. BOND.—We had a column of transfers before, but not differentiated. We recognised that transfers did, as regards this table, make their weight a little felt. There is a difference in receiving transfers of many years duration as compared with transfers which have only been under certificates for a year, and some of whom may recover. And for that reason we put a single column headed "transfers." But we did not think they were important enough to subdivide into "first-attack," "not-first-attack," etc.

The PRESIDENT.—The amendment is to omit all the columns after the first total column.

On being put to the vote, 8 voted in favour, and none against.

TABLE B 3.

Dr. CARLYLE JOHNSTONE.—Why are the congenital cases given in the direct admissions section of the table only?

Dr. BOND.—They are included in the others, not differentiated.

Dr. CARLYLE JOHNSTONE.—Why are they not taken out of the indirect as well as out of the direct so as to be shown separately?

Dr. BOND.—Congenitals were placed there to save an extra Table for showing their precise age. It is difficult to discuss a succeeding Table when we have only Table B 3 under consideration, but in Table B 4 we have differentiated between "first-attack" and "not-first-attack" cases, and it would have required another table to show the ages of the congenital cases and the direct admissions in the same way.

Dr. CARLYLE JOHNSTONE.—I do not understand what is the object of giving the ages of the direct congenital and not the ages of the indirect congenital.

Dr. BOND.—The object is to give the ages of the direct admissions subdivided in the manner we have adopted throughout.

Dr. BEDFORD PIERCE.—It is only to prevent an additional table corresponding to B 4. It is simpler to put it in B 3 Table than to make another table.

Dr. NEWINGTON.—It is complementary to B 4. They are put underneath as a very convenient spot.

Dr. CARLYLE JOHNSTONE.—It seems to me to be a clumsy arrangement.

Dr. ROBERT JONES.—I think Dr. Carlyle Johnstone means that in the first part of Table B 3 you have to class direct admissions and transfers, whereas in the second part you have only direct admissions.

Dr. NEWINGTON.—But it is absolutely plain, and, I think, no one could make a mistake about it. Therefore what is the objection?

Dr. CARLYLE JOHNSTONE.—I think ninety-nine out of every hundred people would make a mistake about it. You only give specifically the direct congenital cases.

Dr. NEWINGTON.—What purpose would be served by altering it?

Dr. BOYCOTT.—I think the line showing congenital cases in direct admissions might very well go into the next Table.

Dr. BOND.—There is no objection whatever if the Association is content not to have any information of the civil state of the congenital cases in the direct admissions.

Dr. ROBERT JONES.—I agree with Dr. Carlyle Johnstone in this matter. I should prefer another little paragraph added to B 3 as suggested, direct admissions and transfers of congenital cases. Why stop at the direct admissions of congenital cases? Why not add a subsequent paragraph to B 4, and say, "A, congenital cases with direct admissions; B, congenital cases with transfers"? Then you will have the congenital cases entirely.

The PRESIDENT.—Do I understand that the Committee is prepared to accept some suggestion about putting this into the next table?

Dr. BEDFORD PIERCE.—I think it is the simplest way of doing it, and gives the least trouble. I shall be willing for the congenital cases to go into table B 4.

Dr. URQUHART.—But why are not we to have the ages of all the congenital cases in this table? The congenital cases in the table are only representative of the direct admissions, while the upper part of the table deals with all the cases received.

Dr. BEDFORD PIERCE.—There is one good reason. There is a difference between the congenital case that is admitted because of some acute attack of insanity, and another congenital case that is transferred for administrative reasons.

Dr. URQUHART.—There is no such differentiation in the upper part of this table, and it begs the question to say that many are transferred for official reasons.

Dr. ROBERT JONES.—I propose that a subsequent paragraph or column should be left, not only for the direct admissions, but for the transfers, so as to get the ages of congenital cases.

Dr. BOYCOTT.—Congenital cases are all included in the first line.

Dr. ROBERT JONES.—I move an amendment that the second paragraph of

table B 3 shall read "A, congenital, direct admissions; B, congenital cases including transfers."

Dr. YELLOWLEES.—I second that.

The PRESIDENT.—It means the introduction of another line.

On being put to the vote, 10 declared in favour and none against.

Carried.

The PRESIDENT.—I now put Table B 3 as amended.

Carried.

TABLE B 4.

Dr. BOYCOTT.—I move as an amendment that the words "single" and "unknown" be omitted from both sections of the table.

Dr. STEEN.—I second that.

Dr. BOND.—Does Dr. Boycott suggest that the civil state should be omitted?

Dr. BOYCOTT.—Yes. You have already the information in B 3.

Dr. ROBERT JONES.—I think it is important we should know the actual ages and the civil states of patients, *e. g.* in boy or girl marriages, from a sociological point of view. Although it is an elaborate table, it will give us a great deal of information. I have been working on this line, and I should be glad to have such assistance as this would give us.

Dr. BOND.—Is the knowledge of the civil states of our cases in general diseases, apart from mental ones, of the slightest value to us? Presumably it is, otherwise we would not record it. But I thought all statisticians would agree that if you attempt to trace the influence of the civil state you can only do so when you know the ages, preferably in quinquennia. I quite see that it would simplify this if you would be content with broader periods than quinquennia, but then to be logical you would require to carry that out in succeeding tables, recoveries and so forth, because part of our aim in arranging these tables has been to make a certain amount of comparison with similar columns.

Dr. CARLYLE JOHNSTONE.—Is it the civil state at the commencement of the disorder?

Dr. BOND.—No, on admission.

The PRESIDENT.—The amendment is to omit the civil state.

Dr. BOND.—It should be the civil state at the same age as is expressed in the table.

Dr. YELLOWLEES.—Age at the commencement of the attack.

Dr. BOND.—If Dr. Carlyle Johnstone thinks there will be a large number of cases which become insane prior to tabulation, and then marry, we can meet this point. I quite see that it can occur, and if with any probability of frequency we should definitely state that the civil state is taken at the same time as the age, namely, the commencement of the attack.

The PRESIDENT.—I will now ask you to vote on the amendment.

It was put to the meeting and *lost*.

Dr. CARLYLE JOHNSTONE.—What is the object of having the statement as to the attacks put at the bottom of this table? There is the statement saying, "number of previous attacks, in the non-first-attack direct admissions, known to have been treated to recovery in an institution or elsewhere."

Dr. BOND.—It came conveniently here, and we were under pledge to express the age on first attack of the non-first-attack cases in the way we have provided. And in doing that one of the tables which was embodied in our previous report has been abolished.

The PRESIDENT.—I now put Table B 4.

Dr. ROBERT JONES.—From some work on puerperal insanity I have found that it is only by knowing the number of attacks that you can find out what was the duration between them. I think it is important that we should have this registered.

Dr. BOYCOTT.—In this addendum there is a note "known to have been treated to recovery in an institution or elsewhere." The other tables are confined to the asylum.

Dr. BOND.—Our idea is that the attacks should be registered irrespective of any

particular asylum, and I think it is erroneous to say that the facts in the other tables are confined to the particular asylum recording them.

The table as a whole was then put and agreed to.

TABLE B 5.

The PRESIDENT.—It was understood at the November meeting that although we might not regard Table B 5 as ideal at the present time, yet that it ought to remain in the form proposed here until another annual meeting had opportunity of appointing a committee on the whole question of classification.

Dr. URQUHART.—The younger school of psychiatrists are generally of opinion that if the Association would wait for ten years an adequate classification would be possible; but the most advanced and hopeful of them say that in the meantime they are not prepared to make any suggestion. It is evident that we may proceed as the Committee has proposed with a classification, expressed in terms of symptoms and time, and in the simplest possible words. The objection to adding pathological forms of insanity has been that it is thereby made an absurd classification; but if it were distinctly understood that the symptomatic groups were one thing, and such pathological forms as we have been able to detach were another thing, I think we might very well accept this classification for quite ten years to come. A proposal which I made to the Committee, and which I make to-day, in accordance with the papers submitted, is that there should be a distinct division between the congenital and infantile forms of insanity and the acquired forms—melancholia, etc. I should prefer if, in this particular table dealing with the admissions, the pathological group could be correlated with the symptom groups, so that it would be evident at a glance how many general paralytics had been received, and at what stage of the disease, differentiating melancholia from mania. Dr. Clouston, at our meeting in Scotland, was willing to accept this Table if the pathological groups were placed at the bottom, but he did not like the idea of placing them at the side. He could not recognise that any general paralytic could be an acute maniac. Yet in his clinical lectures he deals with general paralysis in the acute maniacal stage, and so on, taking the symptoms of general paralysis in terms of time and in terms of mental symptoms.

Dr. CARLYLE JOHNSTONE.—I second it.

Dr. ROBERT JONES.—It is an absolute impossibility and premature to have a pathological classification. What is the difference between acute delirious mania or acute mania and the nature and pathology of paranoia or acute insanity? If you come to speak of the pathology of general paralysis, Dr. Mott will tell you that it is due primarily to neuronie change, and that the other conditions are secondary, while Forbes-Robertson will say it is an arterial condition primarily, and that secondarily there are neuronie changes. By adopting this temporary classification we shall be doing the greatest service to asylum statistics and to ourselves. What does it matter? We know melancholia cases last a little longer and are equally fatal. I think, as far as our knowledge goes at present, the Committee have made an excellent suggestion, although capable of amendment. I think toxic cases may be mentioned.

Dr. NEWINGTON.—One reason the Committee have taken the course they have is to prevent what is absolutely impossible now, and that is an adequate debate on the classification of insanity. It was understood last time, subject to further remarks, that this Table was put up confessedly as a temporary Table, and that it should not be interfered with except by the direct authority of the Association acting through a committee. If we begin to give our opinion as to causation of insanity we shall never finish. I think it would be a fraud on Dr. Mercier if we interfered with this Table, because he is away, and he is under the full belief that it is to be left alone until the Association appoints a committee to deal with it. We certainly are not strong enough to-day to deal with it.

Dr. DRAPES.—It has been stated that this classification would hold good for ten years. I think nearer a hundred years will be required before we can arrive at a scientific classification of insanity, because it is only a symptom after all. You cannot classify it any more than you can classify cough. Everybody will be agreed that it is best to adopt this classification, imperfect as it is, rather than make any

serious alterations in it. Still, there are two or three things that I think might be improved. One of the principles which the Committee started with was guarding against ambiguities of expression. But delusional insanity is as ambiguous as anything you can mention. I understand the Committee to mean that what formerly was called monomania or paranoia is now to be "delusional insanity." But we may have delusions as well in acute mania, or melancholia, or general paralysis. And if you get a case with delusions, under which of these heads will you place it? If delusional insanity is to be in future the term for what we now know as paranoia, then put "systematised" before it, and we will know what we are talking about. I maintain that dementia is the same thing, whether it occurs from organic disease such as tumours or coarse disease, or whether it is senile, or whether it is secondary. I do not see the object of putting dementia in that first section of the classification instead of in its proper place where dementia properly comes, at the bottom. It would be better if we had all dementias classified together in one group, and not separated. I do not think that primary dementia should be there at all. Dementia should be limited to incurable conditions.

The PRESIDENT.—Dr. Urquhart's amendment is, "That the congenital and infantile conditions be separated from the acquired, and reported in terms of symptoms and time, and correlated with the pathological groups of general paralysis, epilepsy, and other organic cerebral diseases."

On being put to the vote, 2 voted in favour of the amendment and 10 against.

Dr. DRAPES.—I move that the word "systematised" be placed before "Delusional Insanity."

Dr. KIDD.—I second that.

On being put to the meeting, 3 voted in favour and 6 against.

Dr. DRAPES.—I beg to move that Dementia from Coarse Brain Lesions be placed under the others.

Dr. ROBERT JONES.—I second that.

Dr. URQUHART.—I feel very strongly that this should not be done. The Committee have first entered Epileptic Insanity, General Paralysis of the Insane (two very distinct pathological conditions), and then Dementia from Tumours, Coarse Brain Lesions, etc., all three being probably perfectly distinct from the succeeding groups of mania, etc. I cannot understand why the Committee object to dividing these forms into Congenital and Acquired, as they made such a point of doing so in other parts of their work; and I would also say that anybody could write in any fancy names he liked, under the most appropriate headings. I think this is as good a solution of the difficulty, next to mine—(laughter)—as can be arrived at, and I hope it will be accepted now.

Dr. YELLOWLEES.—The reason for putting Dementia there was exactly what Dr. Urquhart stated, and I think it was largely in deference to Dr. Urquhart's views expressed to us that we placed it there in close connection with diseases the pathology of which was practically known. I do not know why we omitted Paralysis as a form of coarse brain disease. It is certainly the most frequent cause of that "paralytic dementia" which Dr. Craig, following others, identifies with general paralysis—a serious confusion, which is greatly to be deprecated. I think that "senile" ought to have been put in after "secondary dementia."

The PRESIDENT.—The amendment is, "That Dementia from Tumours and Coarse Brain Lesions, etc., be put at the bottom of the table."

On being put to the meeting, 6 voted in favour and 7 against.

Dr. THOMSON.—Do I understand that we are committed, out of deference to Dr. Mercier, to these terms for classifications for years to come.

Dr. NEWINGTON.—No, but it would be such an awful matter to alter a classification to suit everybody.

Dr. THOMSON.—But why introduce these new terms, such as Alternating Insanity, and Delusional and Volitional? That is not scientific at all. These are forms of mania and melancholia as we understand them. You cannot diagnose alternating insanity on admission. I suggest that, if this classification is temporary, we should adhere to our generic terms, Mania, Melancholia, etc. The English Commissioners, in their Death Tables, have very wisely dealt with Mania and Melancholia together. We constantly meet with cases in regard to which we cannot say whether they are mania or melancholia. I beg to move that the new-fangled ideas in this table, such as Alternating, Delusional, Volitional, and Mora

Insanities, should be deleted. They are all mania. I would not put figures under Alternating, Volitional, or Delusional. Stupor I am in doubt about.

Dr. BOYCOTT.—I second that. The Commissioners have adopted certain forms, and I do not know whether they will alter them.

Dr. NEWINGTON.—We think it very likely that they might.

Dr. CARLYLE JOHNSTONE.—Will the Committee say what is meant by alternating? Does it mean recurrent?

Dr. NEWINGTON.—Folie circulaire.

Dr. URQUHART.—Should it not be so stated? I understood it meant folie circulaire or recurrent. Dr. Thomson says you cannot diagnose that on admission, but surely we should ascertain whether it is recurrent or not. Once more I think we should ask the Committee to define their terms.

Dr. YELLOWLEES.—It would be extraordinary to adopt Dr. Thomson's amendment. I should be very much startled, because to each one of us they all three mean something quite definite and recognisable. Moreover, other men know what we mean when we so speak. Gentlemen question alternating insanity. Certainly that means periods of depression and periods of exaltation alternating with a shorter or longer interval. We did not adopt *folie circulaire* because it is a French term, and the English term we consider better. As to Volitional Insanity, insane hesitation and insane impulse cannot reasonably be included in Mania. Where can you put insane perversions except under Moral Insanity? We know what we call Delusional Insanity, and that it is not mania. There is no excitement about the person, and you allow him to go about; yet he is as insane as he possibly can be. It is a condition so definitely and universally acknowledged, that it should certainly be expressed here. I cannot understand upon what principle those three should be cut out. We cannot classify, but we can so arrange our nomenclature that it shall indicate certain mental conditions with which we are all familiar, the groups in which we almost unconsciously arrange our patients. I think so long as these groups are definite, and sufficiently understood by ourselves and all other alienists, that we should maintain them. They are not pathological groups. It is not a scientific classification. None of us pretend that we can work out a scientific classification with our present knowledge.

Dr. URQUHART.—Will Dr. Yellowlees kindly inform us whether recurrent mania or melancholia should be entered, and if the Committee will undertake to make it perfectly clear what is meant by the words used?

Dr. DRAPES.—That is a different question from the amendment before the meeting.

Dr. URQUHART.—I ask it as arising out of the term alternating insanity.

Dr. YELLOWLEES.—Each superintendent must decide for himself, and say this particular case is alternating, or recurrent, or relapsing, and if he cannot regard it as an alternating case he must place it as one of mania.

Dr. EASTERBROOK.—I suggest the term alternating and recurrent insanities.

The PRESIDENT.—Dr. Thomson's amendment is before the meeting.

On being put to the meeting, two voted in favour and six against.

The PRESIDENT.—I declare the amendment to be lost.

Dr. NEWINGTON.—I beg to move that the table be put as it is.

Dr. ROBERT JONES.—I second Dr. Newington's motion.

Dr. URQUHART.—I move that the word "recurring" be added to "alternating."

Dr. CARLYLE JOHNSTONE.—I second it.

On being put to the meeting, four voted in favour and nine against.

Dr. EASTERBROOK.—This is a table showing the form of mental disorder, and you introduce duration as a new idea. Duration is dealt with in the previous Table B 2, and I move that "recent and chronic" should be omitted here. If they are retained we should introduce also "subacute," because the "period of one year" in insanity is too long for recent, and yet it is too short for chronic.

Dr. BOYCOTT.—I second the motion.

Dr. DRAPES.—I think the confusion arises in connection with "chronic," as involving the double meaning of duration or intensity or curability. I agree that there should be a subsection for subacute.

On being put to the meeting, there voted in favour two, and the amendment was lost.

The PRESIDENT.—Therefore I now put Table B 5.
Nine voted in favour, and one against.

TABLE B 6.

Dr. URQUHART.—Will the Committee give us a little information about this table? For instance, our General Secretary required definite information relating to lead workers. Will any of the Committee kindly tell us where lead workers find a place here? There are others, squires of the land, and tramps without visible means of support. There is also the publican, who is entirely occupied with selling drink, provocative of questions as to environment; he is included in "Board, Lodging, and Dealing in Spirituous Drinks." What we want is the exact occupation of persons coming under care, with the exact instructions where they are to be placed under these headings in the table.

Dr. ROBERT JONES.—It would be well if the Secretary or the Chairman of the Committee would give us some little information. I think that this table was extracted from the tabulated occupations of the census; if so, it should be most comprehensive and inclusive, with the details as seen in the original table of census occupations.

Dr. BOND.—The table as set forth gives precisely what Dr. Urquhart is anxious to obtain. In each of these subdivisions you will see a numeral. For instance, take J, "Metals, Machines, Implements, and Conveyances." Then under that take c, or, as we should indicate it, J c 12, "Engineering and Machine Making." The numeral 12 indicates that in the Registrar-General's list of occupations there are twelve subheadings, the names of which, of course, it would be impracticable to have printed here. To compile this table one requires an index of occupations from the Registrar-General's return, which latter fortunately is the same for the three kingdoms.

Dr. URQUHART.—There is nothing about all that in this report.

Dr. BOND.—The Committee felt that the labour necessary to tabulate all the individual occupations found in the admissions would be too great. They did get a mandate on the question. We have not had a chance of again consulting the other two boards.

Dr. URQUHART.—I move that we do not accept this table until full information is before each member of the Association.

Dr. CARLYLE JOHNSTONE.—I second that.

Dr. YELLOWLEES.—I think Dr. Urquhart is a little unreasonable. Is it not true that our insane people are drawn from all classes of the community? And to include all the occupations which people can be engaged in would imply a list of quite impossible lengths. Let us take out of the complete list what each man does.

Dr. URQUHART.—Until we get that complete list we do not pass it.

Dr. YELLOWLEES.—It is already published in the census returns. This table is a mere synopsis, to show how wide that document is. If we printed it, it would take more space and paper than we can afford. I think that we make too much of the occupations. I would be content with the divisions in our first report, because, except in special cases like lead workers, occupation has little to do with the insanity. It is certainly not of so much importance as to require such an enormous table. I do not see how we can get what we want, except in the way we propose.

The amendment was put to the meeting, and two voted in favour, the majority being against.

Dr. BOYCOTT.—I suggest division into twelve headings to get the information required.

Dr. STEEN.—I move as an amendment that the ages be omitted.

Dr. CARLYLE JOHNSTONE.—I second that.

Six voted in favour and eight against.

Dr. BOYCOTT.—I move that columns be added for ages under ten.

There being no seconder, the amendment dropped.

Table B 6 was then put, and carried by eight votes against two.

TABLE B 7.

Dr. BOYCOTT.—I move that this table be omitted, as the necessary information is contained in Table B 8.

Dr. CARLYLE JOHNSTONE.—I second that.

Four voted for the amendment, nine against.

Table B 7 was then put, and carried by 10 against 1.

Dr. CARLYLE JOHNSTONE.—I decline to vote, because the subject was discussed hurriedly and inadequately. ("No.")

The PRESIDENT.—The subject was discussed.

TABLE B 8.

Dr. BOYCOTT.—I move that Table B 8 shall, under the heading "Mental Instability," show previous attacks of instability, and that "previous attacks of insanity" be added.

Dr. KIDD.—I second that.

Dr. BOND.—The Table excludes previous attacks by referring only to first-attack cases.

On being put, the amendment was lost, 3 voting in favour, 7 against.

Dr. URQUHART.—One would desire to know what is the exact mind of the Committee about this Table. In the left-hand column we have a certain number of factors, and on the rest of the page we have got correlated conditions. Will the Committee say if they would regard the correlations as optional, and be content as a minimum with the left-hand column?

Dr. BOND.—The correlation is of extreme importance in the mind of the Committee. Recognising that it will require, to carry out this Table, considerable clerical labour, they did agree to limit the correlation to first-attack cases.

Dr. BEDFORD PIERCE.—We are not making speeches about these points, because we are leaving the time of the meeting to those who wish to ask questions. Would it compromise matters to consider part of the Table as optional?

Dr. YELLOWLEES.—This Table was divided and amplified so as to make it more intelligible, and as the result of representations from Divisions and from private persons. The extent to which it is used will depend altogether upon the energy and the inclination of the men who make it up. It is possible to give what you may suppose are the principal causes, and a list of contributory causes, such as those under the headings we have given. It is possible to do that and nothing more. But even that is something, and an important something, because it impresses the fact that insanity is not a condition due to any one cause, but the result, often, of two or three or many causes; and it is important to know and to notice with what chief causes the contributory causes usually occur. But it is going very much further if you correlate the contributory causes with each other, and if you are able to say, *e.g.* how often alcohol occurs with the climateric as contributing causes. I think there is thus very valuable information to be gained. The Committee all think it would be the right thing to do. I hope none will grudge the labour. The Committee is of opinion that those two tables would give us fuller information about the ætiology of insanity than other ætiological forms which we have been able to devise.

Dr. URQUHART.—Five causes demand twenty-five entries.

Dr. YELLOWLEES.—Yes, the entries number the square of the causes.

Dr. NEWINGTON.—The Committee are in favour of everybody doing it. The Committee must not be understood to allow laxity on this point, or on any other which is not marked "optional." We have to settle in regard to each case what the number of causes is. If in the course of our inquiries we only find two causes we can fill up the Register with two causes. But if we find five causes we are bound to put them down. The difficulty for us is to find the causes. The tabulation is clerical work and not difficult. But even if there is some trouble that trouble must be taken if the table is to be of any use. This Table makes us to put in every possible cause that can be found; and the truth with regard to the ætiology of insanity can only be learned by putting down every cause. If we find say only two causes it tells us something that we know already. We know, for instance, that drink and certain things go together, but we wish to do work which will go beyond what we now know. We want the enumeration and correlation of all the factors, so that when the great statistician comes along and finds all this information, his attention will be attracted to certain sequences of events. If we stop short we shall only be proving what has been proved a hundred times before. We want work which will lead to new ideas.

Dr. URQUHART.—Under the column "Ætiological Factors and Associated Conditions" Dr. Newington has very well said we want to record everything relative to the cases. Under "Heredity," in that column, we have "Insanity, Epilepsy, Neuroses, Eccentricity, and Alcoholism." I propose that heredity of paralysis should be reinserted.

Dr. CARLYLE JOHNSTONE.—I second that.

Dr. BEDFORD PIERCE.—I hope it will not be included.

Dr. ROBERT JONES.—I think that as the Committee have given so much time to this it really is an indication of considerable temerity that we should suggest that so many alterations should be suggested.

Dr. URQUHART.—But the Committee took it out.

Dr. BEDFORD PIERCE.—I was largely responsible for that, because I urged it was of very little importance from the point of view of heredity, and I said it was important that we should not make it longer than it was absolutely necessary.

Dr. URQUHART.—It is one of the most important factors.

The amendment was then put to the meeting, when 4 voted in its favour and 7 against.

Dr. URQUHART.—I note the expression "Mental Instability." How can this be an ætiological factor of the conditions which we are considering?

Dr. NEWINGTON.—Is Dr. Urquhart inclined to say that all forms of moral deficiency are insanity, or that all mental deficiency is insanity? If not, you have the two different quantities, the preceding or the associated condition and the overt disease. I can understand his argument if eccentricity is insanity.

Dr. URQUHART.—So it is.

Dr. NEWINGTON.—Therefore, all moral deficiency is insanity? If moral deficiency is not insanity may not we give it as an associated factor of insanity?

Dr. URQUHART.—If we know anything about the heredity of insanity we know that eccentricity is almost as productive of insanity hereditarily as is insanity itself. It is the inability of the person to conduct himself in accordance with his surroundings.

Dr. YELLOWLEES.—I regard this Division B as one of the most important of all the factors in the production of insanity. You first ask yourself what sort of a person was the patient before he became insane? You find he has been a man of uncertain mind, a man of unstable mental balance, and therein is the whole explanation of his illness. His mental want of balance did not come out fully until he became insane. It may have been only odd conduct or silly vanity until then. Is there anything unintelligible in that?

Dr. URQUHART.—Under heading B, I suggested before, and I think it was accepted by the Committee, that all the critical periods of life should be inserted as puberty, adolescence, maturity, climacteric, and senility. Why do the Committee decide to omit the stress of maturity, a period when men, and most women, are labouring under the greatest stress? I move its insertion.

Dr. CARLYLE JOHNSTONE.—I second it.

Dr. NEWINGTON.—Surely maturity can hardly be given as a cause. Immaturity might be. Real maturity implies the perfection of health; the period of greatest strength, both physical and mental.

The PRESIDENT.—I put this amendment to the meeting for the insertion of the word "Maturity."

Two voted in favour and 11 against.

The PRESIDENT.—I now put Table B 8 again.

Ten voted in favour, 2 against.

TABLE B 9.

The PRESIDENT.—The next is Table B 9. If there are no amendments I put it. Agreed.

TABLE B 10.

Dr. URQUHART.—Again in the pursuit of information I ask on whose suggestion and by whose authority this Table has been prepared. It is impossible now, at 4 o'clock in the afternoon to discuss this effectively. Was it prepared in accordance

with the views of some expert in biology? The collateral mental affections of the children and grandchildren are omitted, but the children, sane and insane, are often the very persons about whom you can get information, which afterwards becomes of scientific value.

Dr. ROBERT JONES.—There is much to be said with regard to Dr. Urquhart's remarks, although it is an optional Table. I have been in conversation with an eminent biologist in reference to it, and the reply was "Your statistics are absolutely valueless. You may ask how many insane relatives there are, but I want to know also how many sane relatives there are, so that I may know whether insanity is more common in the family under investigation than in the families of others not represented in asylums."

Dr. NEWINGTON.—Does not B 11 answer that?

Dr. ROBERT JONES.—That is not before us.

Dr. URQUHART.—Do the Committee take the responsibility for this Table? And were they assisted by any eminent biologist?

Dr. NEWINGTON.—I do not know whether Dr. Bond is an eminent biologist, but it was approved by the members of the Committee who were present, and it may be taken to represent the skilled labour of people who probably understand the matter. It may be desirable to go to an eminent biologist, but it is not necessary in order to get a decent working Table. You might as well get a statistician to add up your daily books.

Dr. BOND.—Some of the points which, I think, are in Dr. Urquhart's mind have been kept in mind in framing the Table, and after consultation with an eminent biologist. I have not authority to say more than that the question of consulting others has not been omitted.

Dr. URQUHART.—There is, therefore, a qualified approval of this most important Table?

Dr. BOND.—Not yet of the Table but of the principles upon which it was drawn up.

Dr. URQUHART.—The Committee take the full responsibility for it, and they put it before us this afternoon for final acceptance. I can only move in these circumstances that the Table be not adopted.

The PRESIDENT.—You can vote against it, which will be the same thing.

Dr. BOYCOTT.—Does it refer to all admissions or only direct admissions?

Dr. BOND.—It refers to whatever set of cases you elect to elucidate. The Committee were asked to suggest lines on which heredity could be better expressed than at present. It is optional, and strictly in accordance with promise, and to the best of our ability. Anyone who goes into the question of adequately tabulating heredity will find himself beset with many difficulties.

Dr. NEWINGTON.—It is shown in page 9 of the Report:—"Since it recognises that a really reliable inquiry can only be made by those who are more or less enthusiastic in working out intricate histories." That is the attitude of the Committee; they have done their best. Those who do not like it need not work it.

Dr. URQUHART.—The question is whether it is the best Table which could be obtained by this Association. We urgently desire to work out this Table if it is the best. There can be no more important question for us. But is it not a little premature for us, unaccustomed as we are to latter day questions in biology, to decide this afternoon whether it should be finally accepted? It is all very well to say it is an optional Table, but, for that matter, all the Tables are optional. Many of us desire that the Committee should give us the best they can obtain by their own endeavours, and also by reference to other authorities. I do not like to vote against the Table, because it looks as if we were belittling the enormous amount of trouble which has been expended on it. I would very much rather refer it to the Committee for further authoritative criticism.

Dr. YELLOWLEES.—Being an optional table, it could be improved on from year to year if improvement were found to be desirable; and we should not occupy time in discussing tables which are optional. It is important to discuss those which are essential.

The PRESIDENT.—I now put Table B 10.

Carried.

TABLE B 11.

This was put, and agreed to.

TABLE C 1.

Dr. YELLOWLEES.—Complaints were made at the last revision that C 1 was too meagre, and it is now much fuller, and I hope it will be more satisfactory.
Carried.

TABLE C 2.

Dr. BOYCOTT.—I move that the "total length of this attack of mental disorder" column be omitted from this table, *i. e.* all underneath the double black line.

Dr. ROBERT JONES.—I hope Dr. Boycott will withdraw that. With regard to prognosis, it is most important we should have the duration of the mental disorder. Much more remains to be said, and it is only by statistics of this kind, correlated from the various asylums, that we shall get the information.

There being no seconder, the amendment dropped, and Table C 2 was put and carried.

TABLE C 3.

This was put, and carried, without discussion.

TABLE C 4.

The PRESIDENT.—It is arranged precisely as Table B 7, except that the columns for the congenital cases will be omitted.

Dr. BOYCOTT.—I propose that this table be omitted. I spoke before with regard to the previous table of a similar nature, and I thought it might be omitted. All the information necessary could be got from the next table, slightly altered, that is C 5.

Dr. STEEN.—I second that.

Dr. YELLOWLEES.—This table was urged upon us from various quarters to meet the inquiry, what kind of cases recover? What are the causes of insanity from which you derive most recoveries? It is a right and proper question. What is the use of telling us about your recoveries if you do not tell us what kind of insanity was recovered from, and what caused the insanity? I do not see that we can refuse that, if we want anything like complete information about our cases. It is not so serious as the Admission Table B 7, because it applies to a smaller number of patients, and I do not see that we can omit this without destroying the completeness of the tabulation.

Dr. ROBERT JONES.—Would you not get this in the next table (C 5)?

Dr. BOND.—It is limited to first attack cases.

Dr. BOYCOTT.—It might be altered to include all.

Dr. BOND.—Personally I have done these correlations for some years, and I know exactly what the labour is. The saving of labour by limiting the work to first attack cases is considerable. And, conversely, the labour of including your congenital cases, not-first-attack cases, and cases unknown whether first attack or not, would be very considerable, and of doubtful value, because the cases where you do not know whether it was the first or not first attack, if at all numerous, would vitiate any deductions.

Dr. BOYCOTT.—I remember proposing in the previous table, B 8, that the addition should be made of a small heading showing the previous attacks in that table. And in altering the heading of the table to cover all cases it would show those which had previous attacks, and they would be one of the associated conditions of the insanity. And the same with the recoveries. By a slight alteration of Table C 5 it would cover all cases of recoveries from all possible conditions. I think you would get full information without Table C 4.

Dr. BOND.—Yes, but with infinitely greater labour. All you ask the printer to do is to put in an additional column vertically and one horizontally. But for the compiler of the Table, you will include immediately all your cases which are not-first-attack cases, and you are asking him to give the total correlations for each of those. We did that originally, and it is with the view of saving labour and conducting to accuracy that we have put the Table into two forms instead of one.

On being put to the meeting Table C 4 was carried by 8 against 2.

TABLE C 5.

Dr. BOYCOTT.—I propose that it be not optional. I think that B 8 and C 5 are the most important tables in the report.

Dr. BOND.—*Qua* the recoveries?

Dr. BOYCOTT.—As Dr. Yellowlees has said, we want information as to the kind of cases which get well. But this table does not show the classification of insanity.

Dr. YELLOWLEES.—I agree it is important, but it demands a full correlation of all contributing factors. I am sure, with all respect to my *confères*, very many of them will not do that full correlation, and therefore Table C 5 will not show it. I agree that the table cannot be compulsory.

Dr. BOND.—These tables were not in our original report, but representations were made to the Committee that they should be adopted. We felt, as a Committee, that we should compromise, that we were bound to do so.

Dr. BOYCOTT.—I move that the word "optional" be omitted.

Dr. CARLYLE JOHNSTONE.—I second that.

On being put to the meeting 3 voted in favour of the deletion of "optional" and 4 against.

The PRESIDENT.—I now put Table C 5 as it stands.

Carried.

TABLE C 6.

Dr. BOYCOTT.—It is an optional table, and seems to be a very long one, and it requires a lot of work. Is it worth while including this table among the tables of the Association or not? I move that it be omitted.

Dr. STEEN.—I second that.

Dr. URQUHART.—I would deprecate omitting that table. It is marked "optional," and I take it that these tables are preferred for the general guidance of the Association. It might happen that some worker might want to elucidate this particularly. The word "optional" signifies that it is not of the first importance to the Association.

Dr. YELLOWLEES.—I hope it will be kept, because it brings a strong point before us, namely, the duration of the attack, no matter where it was treated, or whether it was treated or not. And as it refers only to the recoveries it is not a very large table.

The Table was then submitted to the meeting, and, by 8 votes against 2, retained as optional.

TABLE D 1.—*Causes of Death.*

Dr. URQUHART.—This is again a question of definition of terms. I suggest that "principal" means intensity, and that "primary" expresses time. We have to return deaths to the Registrar-General for Scotland under the headings "Primary Cause" and "Secondary Cause," which are comparatively easily determined. The principal cause and contributory cause are not quite so easily dealt with. Unfortunately the Registrar-General in Scotland selects one single cause, and of course that selection must be left to himself. I do not see that we can alter our attitude towards the Registration Acts by accepting the words "principal" and "contributory," and I feel sure that in Scotland we shall continue to use the terms "primary" and "secondary."

Dr. ROBERT JONES.—That is a very important point. However many causes are put in, only one cause is used by the Commissioners, and I think it is very important to have principal and contributory causes, for this reason: one has frequently to certify causes of death in cases of general paralysis of the insane, in which the immediate cause of death was broncho-pneumonia. The principal cause would probably be broncho-pneumonia, but the condition from which the patient was suffering primarily was general paralysis. You would say then that the contributory cause was broncho-pneumonia. It is a better classification than into primary and secondary.

Dr. NEWINGTON.—There are many instances in which difficulty does arise, and people use the term secondary in two ways, although they are supposed to use it in point of time. Take the case of a general paralytic committing suicide. In such a case as that all those difficulties are enormously raised from point of time, and not altogether removed from other considerations. It is difficult to say which is the

principal cause. Perhaps Dr. Bond will be able to tell us more about the words chosen.

Dr. BOND.—It is of paramount necessity to express the age at death. We must have a table which will express age at death combined with the cause of death. That compels us to select one cause of death, as the Commissioners ask us to do, and as the Registrar-General does. We found that the words "Primary" and "Secondary" did not indicate which was to be selected, because of the two senses in which those words are used. "Primary" strictly means in point of time, but very many people use the terms differently, and take it that "primary" means principal. We therefore thought it best in the Tables to use the words "Principal and Contributory." The Registrar-General in compiling his tables does what we do here. He does not use the words "principal and contributory," but he virtually does that when he selects one cause from among those which are returned to him; he selects that one which is in his mind the principal cause. We do not know what determines his decision.

Dr. YELLOWLEES.—I think the three Death Tables should be taken together. The second one gives the principal cause of death, with the age at death, and the third gives what was so much desired at the last discussion, the form of mental disorder on admission in the cases who died. It was specially asked by our Secretary, and by some others, on account of the definite view as to its value in regard to life assurance. The form of disease under which the patient laboured, and the length of his life during that disease, was asked to be given.

Dr. YELLOWLEES.—They do not mean anything special; they merely indicate any kind of illness which you find contributory to the death.

Dr. URQUHART.—If there were entered in these columns the different bodily systems (cardio-vascular, etc.) one would understand them.

Dr. NEWINGTON.—These were selected as things which did occur, and this question has been debated by the Committee not once, but at least six times. These points have all been carefully considered.

Dr. BOND.—Space was left there so that there should be no mistake that the figures which expressed correlation referred to the total incidence, and not one or other of the two columns. I would mention that as a matter of fact those selected causes *are* in a very definite order, namely, the order of the Registrar-General. The actual systems are not expressed, such as "cardio-vascular" or "respiratory," but if the names of the diseases are looked at again they will be found to be in a strictly scientific order.

Dr. URQUHART.—I note the cause of death "as grouped by the Registrar-General and using the nomenclature of the Royal College of Physicians." Of course the nomenclature of the Royal College of Physicians in relation to mental disease is very unsatisfactory.

Dr. NEWINGTON.—There is a new edition coming out shortly.

Dr. URQUHART.—Would it not be possible to give the College of Physicians a lead in this matter of nomenclature as applied to mental disorder?

The PRESIDENT.—They have had a Committee sitting during the last two or three years, and their Report is coming out shortly.

Dr. NEWINGTON.—We have not proposed nomenclature dealing with the cause of death.

Dr. URQUHART.—I thought you had proposed general paralysis as a form of mental disorder? We adopted that and epileptic insanity.

Dr. NEWINGTON.—That is a view which had not struck me, but now you have put it, I think the Committee are against putting anything like a mental cause of death. In England the Registrar General has been trying to get from us a mental cause of death, and the superintendents have objected to that, and we want to eliminate anything referring to mental disease from the return of the death.

Dr. URQUHART.—When I served in English asylums a very common cause of death was "exhaustion from melancholia or mania." But, although you say there is no such thing, the College will have their list, albeit we do not desire to name insanity in our returns. You have got general paralysis, you have got epilepsy. I move an amendment that we use our own nomenclature as far as necessary.

The PRESIDENT.—Our own nomenclature for mental diseases?

Dr. URQUHART.—Yes.

There being no seconder, the amendment was not pursued.

The PRESIDENT.—I now put Table D 1.
Five voted in favour, and none against.
Table D 2 and Table D 3 were carried without discussion.

TABLE E 1.

Dr. STEEN.—I propose that the word "optional" be placed after this table. I do not see what benefit is to be derived by going over all the patients in the asylums. It is a tremendous labour, and I do not think that any good purpose has been served by it in the past.

Dr. BOYCOTT.—I second that.

Dr. YELLOWLEES.—In what way do you know the ages of the patients? Is there any return made to the Commissioners at the end of each year giving the ages of the patients?

Dr. ROBERT JONES.—I think so.

Dr. YELLOWLEES.—So this is the information required?

Dr. NEWINGTON.—The matter in the horizontal line is all old material, which we do year by year. The only point is as regards the correlation. The clerk will do it.

Dr. BOND.—Does not the Table give rather a striking picture of the cases? It is of very little value, to know how many there are aged between sixty and sixty-four, fifty and fifty-four, etc., unless you know the duration of the attack. But if you know the duration of the attack, in addition to the present age, you have a useful picture of your asylum population, and you are able to compare two asylum populations clearly, with remarkable effect and avoidance of all ambiguity of terms.

Dr. BOYCOTT.—It is of no scientific value.

Dr. STEEN.—I suggest that the picture is not worth the painting.

On being put to the meeting, 3 voted in favour of the word "optional" being added, and 5 against.

Dr. BOYCOTT.—I propose as an amendment that the first column "Total Duration of Present Attack of Mental Disorder" be omitted.

Dr. STEEN.—I second it.

Dr. ROBERT JONES.—A paper was lately read by Sir William Gowers to the Medical Officers Life Assurance Association, and he called upon our President and several others to take part in the discussion, so that they might give some information as to the duration of life in the various forms of insanity. I think if this table were allowed to stand as it is one might get some assistance. I see that the form of insanity is not stated, it is merely the patients in residence.

The amendment was put to the meeting, when 4 voted in favour, and 5 against.

Dr. BOYCOTT.—The last age given in the table is "70 and over." If you give a picture at all you should go higher than that age, because one of the great questions in asylums is in regard to the senile cases, and if you give a picture at all of any ages, it is as well to give the highest ages which are in residence.

Dr. BOND.—I suggest, then, that it should be agreed to continue the quinquennial periods beyond the age of seventy.

The proposition was agreed to.

The PRESIDENT.—I now put this Table E 1 as altered in that way.

Carried.

TABLE E 2.

Dr. STEEN.—I propose that this be regarded as optional. I think the return arrived at by giving every case on the 31st December is never a true one. It is done in a hurry, and is of no value.

Dr. NEWINGTON.—I may mention that "Prospect of Mental Recovery, Favourable, Doubtful, Unfavourable," were inserted as the result of a pledge. We were asked to state those facts as to prognosis.

Dr. ROBERT JONES.—I have persistently declined to give this information in the annual tables for Claybury, and have had a long correspondence with the authorities. At best it is only guess work, and I have been talking to Dr. Savage about it, and he told me that even in cases of general paralysis, and the cases of what seemed to be typical alcoholic dementia regarded as irrecoverable, that you should never give an unfavourable prognosis. Therefore, to make us guess as to whether a case is

favourable, or doubtful, or unfavourable, suggests a prophetic power which we, as medical officers, have not got.

Dr. YELLOWLEES.—When you have doubt, why not call it doubtful? It is very important, partly from an insurance point of view, because it refers to the residuum of the asylums, and nine-tenths of them are demented. It seems simple, and it is worth rendering the information for insurance considerations.

Dr. THOMSON.—You supply this same information to the friends daily.

Dr. STEEN.—It has been stated that this return goes to the Commissioners.

On being put to the meeting, 2 voted in favour of the Table being made optional, and 6 against.

Dr. URQUHART.—This Table refers to the form of mental disorder on a particular date. It has no relation to the mental disorder on the admission of these persons. I have always thought it was very important to see the drift of these cases from their admission towards the date of their departure.

Dr. YELLOWLEES.—It is given in the Table D 3.

Dr. URQUHART.—It does not refer to this point. Why have the Committee thought it of insufficient importance?

Dr. NEWINGTON.—In the former tables it was the intention of the Committee to record the form of the mental disorder on admission in the residue; but many asylums treated it as we have treated it now. It was open to two constructions, either the form of mental disorder on admission, or at the time of the report. So, to avoid doubt, we have now decided as reported.

Dr. URQUHART.—I move that the mental disorder on admission be entered into this table in another column.

Dr. ROBERT JONES.—It gives no indication of the progress of your cases if you go back to what they were. You want to get information for your committee, or for administrative purposes, that you have so many cases of epilepsy, so many cases of dementia, and such may possibly be adolescent mania on admission. It would give you no information after the lapse of many years to have the form of insanity on admission stated.

The PRESIDENT.—I will now put Table E 2.

Carried.

CIVIL REGISTER.

Dr. URQUHART.—With regard to the Civil Register, the headings are not appropriate to Scotland. I do not suppose—

Dr. YELLOWLEES.—It was understood that the Civil Register would be arranged according to the civil laws of the three divisions of the kingdom.

Dr. URQUHART.—It is not so stated.

Dr. YELLOWLEES.—You cannot alter the law of the country.

Dr. URQUHART.—We have nothing to do with the date of the reception order or of the continuation order, or with the irregularity of the order. We do not know what a criminal is. I ask what is in the minds of the Committee, for the guidance of the Association. They are bound to define these terms and to tell us what they mean. Is it proposed that we should enter criminals in the registers? And if that be intended we should know what is exactly meant by a criminal. Then we have a column headed "Usual place of abode." What does that mean? The town, the parish, the number of the street, or the county, or what? Similarly there is another column headed "Whence brought." I hope the Committee will now set questions of that sort at rest.

Dr. NEWINGTON.—The registers which we are now considering differ essentially from the tables we have been considering. We can adopt the Tables as an association, but these registers must be the result of a conference and an agreement with the Commissioners. This Civil Register, although we put it as a specimen, must be adapted to the requirements of England, Scotland, and Ireland.

Dr. URQUHART.—I can only consider it for the purposes of Scotland when it is set forth in black and white.

The PRESIDENT.—You do not have continuation orders in Scotland.

Dr. CARLYLE JOHNSTONE.—It is not suitable for Scotland.

Dr. YELLOWLEES.—It was known we could not prepare a form which could bind any of the authorities; they are already bound by laws, and they must follow their own law in the Civil Register. It is only here as showing the completeness of the

registration, and we are thankful to give them the Civil Register and to let them put anything they like into it. We want the medical register, and this is submitted simply that you may see what is the English civil register. The Scottish register would be different, and the Irish would again be different. It is not in our power to approve or disapprove, that is beyond our sphere, and is in the hands of the boards of the respective countries.

Dr. URQUHART.—You have given no explanation of the word "criminal."

Dr. NEWINGTON.—Have you got a Scottish explanation of it?

Dr. URQUHART.—I want the Committee's explanation.

Dr. NEWINGTON.—A criminal lunatic, in the ordinary acceptation of the word, is subject to legal explanation given by the various authorities. We cannot give a definition of that. A criminal is one who would be deemed a criminal lunatic by the Commissioners in their report. We do not invent an explanation, and we do not know any other term.

Dr. URQUHART.—Is a criminal lunatic always a criminal lunatic?

Dr. ROBERT JONES.—No. A person may be sentenced to a year's imprisonment, and while undergoing sentence become insane. He is taken to the county asylum, probably to the county asylum where he is chargeable to. During the time of his sentence the prison commissioners pay for him. A month prior to the expiration of the sentence the clerk of the asylum in which he is has to summon a justice, and an order is made for his continued detention if he is still insane, and he becomes chargeable to the parish. He is then paid for by the parish; failing a settlement he is paid for by the county. He ceases to be a criminal lunatic at the expiration of his sentence, and, speaking generally, I understand the term to apply to those whom the law takes cognisance of.

Dr. URQUHART.—We require the Committee to tell us in what sense all these words are used, so that we may each record on the same understanding.

Dr. NEWINGTON.—You must look up the definitions in the various parts of the kingdom. We should not want to differentiate between criminal and other lunatics, but we are bound to take cognisance of them here, because the law takes cognisance of them.

Dr. CARLYLE JOHNSTONE.—Is it not the case that the Commissioners in Scotland, Ireland, and England must approve of the new set of registers? And if that is so, we do not know anything about civil registers. What are these forms and registers which you wish the Commissioners to adopt?

Dr. YELLOWLEES.—Dr. Carlyle Johnstone is mistaken. The Scottish Commissioners are perfectly aware that the Civil Register would be a legal document in each country, and would be arranged according to the legal requirements of each country. Nobody thought anything else. I do not know why we should be wasting time over a register we cannot alter; we are not altering it at all. The Civil Register is a thing over which we have no control. Our report would have been absurd without some form of Civil register as against the Medical Register, to show that the history of the patient is complete. The Civil Register is the medico-legal record of his existence under care as an insane man; the Medical Register is the register of the medical facts about him. We have nothing to do with the first, but we have everything to do with the second.

Dr. URQUHART.—I move that the words "Not applicable to Scotland" be printed under the words "Civil Register."

Dr. YELLOWLEES.—Why not say, "This Register must conform to the laws of the countries concerned"?

Dr. CARLYLE JOHNSTONE.—I second Dr. Urquhart's amendment. We have a general register in Scotland, and the Committee apparently proposes to alter it.

Dr. YELLOWLEES.—We never proposed to alter the Scottish register; we could not if we did. The Commissioners are tied to it. The civil register must be according to the Acts of Parliament under which they exist, and we have no power to touch it.

Dr. NEWINGTON.—Dr. Urquhart will find it in a former report. We do not, of course, explain to the Association what ninety-nine out of every hundred people know, namely, that we propose a division of the register into two elements. The first must be regulated by the law. It will require a reference to Parliament to alter either the English, the Scotch, or the Irish Register, and, in the course of

alteration, surely this matter will be put straight; and it is arguing a very small point.

Dr. URQUHART.—What is the question before us, Mr. President?

The PRESIDENT.—I understand there is a Civil Register in Scotland, and it is a new principle to introduce it into England, and I gather that the recommendations of the Committee mainly apply to England in this.

Dr. URQUHART.—I have moved as an amendment that under the words "Civil Register" the words "Not applicable to Scotland" be inserted.

Dr. NEWINGTON.—Shall we say it is liable to alterations in the three kingdoms?

Dr. URQUHART.—Yes.

The PRESIDENT.—Do you withdraw your wording in favour of that suggested by Dr. Newington? It is, "This will be liable to alteration to meet the authorities of the law in each kingdom."

Dr. URQUHART.—I agree to that.

The PRESIDENT.—I put this amendment now.

The amendment was put to the meeting and carried.

Dr. BOYCOTT.—Is this the present Civil Register of England, or is it the revised one?

Dr. NEWINGTON.—It practically agrees with what the Commissioners have asked. We have seen them twice on this point.

Dr. BOND.—And the Scottish Commissioners were willing to do it in the same way.

Dr. YELLOWLEES.—The Scottish Commissioners said there would be no objection to dividing their registers into civil and medical.

Dr. ROBERT JONES.—Does this Civil Register agree with Register "A" of the Lunacy Commissioners?

Dr. BOYCOTT.—With the statutory Register of Admissions which the clerk has to keep?

Dr. NEWINGTON.—This is half of it, the civil half amplified.

Dr. BOYCOTT.—In the sixth column it says, "Date of Continuation order." This should be date of *last* continuation order, because it goes on for different years. What you want is the date of last continuation order.

Dr. THOMSON.—I second that.

Carried.

Dr. CARLYLE JOHNSTONE.—Is "religion" to be put in the Civil Register?

Dr. YELLOWLEES.—We have no power to amend it at all.

Dr. NEWINGTON.—I do not think the religious persuasion is in the Register itself, but is in the list of questions in the Statement of Particulars.

Dr. URQUHART.—Why did the Committee omit it? I submitted to the Committee that it was highly desirable, especially in Ireland, that religion should be noted in the register. It has been left out, and I have no doubt it has been left out after the full consideration of the Committee. Might we now ask for their reasons.

Dr. BEDFORD PIERCE.—I think you might just as well ask a man's politics.

Dr. DRAPES.—I think it is very important.

Dr. ROBERT JONES.—It is in the statement accompanying the patient coming to the asylum, and if there it should have some place on the Register.

Dr. URQUHART.—I move that it be entered here.

Dr. YELLOWLEES.—We have no power to alter the Civil Register. This is wasting time, because we have no power to alter it in either country. We have suggested some things to the English Commissioners, and they have met us most cordially. We should go on to the medical parts of the Register.

Dr. CARLYLE JOHNSTONE.—In Scotland we have one general register, and the Committee propose to upset that altogether. And they have brought forward two instead, namely, the civil and the medical. Yet they say they cannot touch the Civil Register. There is no Civil Register as yet properly speaking.

Dr. ROBERT JONES.—I do not know where we are in this matter. If we have no power to alter the Civil Register, and it is statutory, why is the recommendation of the Committee made suggesting that alterations should be effected.

Dr. NEWINGTON.—These are not very important points. It is most important to us that we should get through our work to-day. Our quorum is so small now, and it is a pity to wreck the whole of this scheme, and I am afraid it will be

wrecked on small points. I suggest that we take a vote on the question. It must be understood that we cannot put it in. You can only inform the Commissioners that it is the view of the Association that it should go in.

The PRESIDENT.—I will now ask for those who are in favour of inserting a column providing for the mention of the religious persuasion of the patient, to vote.

Five voted for the amendment and 4 against.

Dr. BOYCOTT.—Dr. Newington says we cannot alter these registers, that we have simply to ask the Commissioners in Lunacy if they will settle it. How long will that take?

Dr. NEWINGTON.—It will take eighteen months at least.

Dr. BOYCOTT.—If that is so I think we could employ that eighteen months profitably, while we are waiting for the Commissioners' dictum, in revising the Tables still further.

The PRESIDENT.—That must be brought up again at the Annual Meeting tomorrow, if you want to proceed with it.

Dr. BOYCOTT.—No, only the urgency is not so great as I thought it to be.

Dr. NEWINGTON.—The reason I say that it will take eighteen months is that the alteration of these registers will require a notice to be put on the Table of the Houses of Parliament and to lie there for a month. Parliament will be adjourning shortly, and, therefore, what has to be done will have to be done in the next session if the Commissioners agree. But neither the Commissioners nor we will go forward unless the ground behind us is absolutely certain, and in order to start this statutory action next year we must have finished this work. Therefore it is absolutely necessary to close it now, and if we open it again it will make it two and a half years instead of one and a half years of delay.

The PRESIDENT.—The principle of altering the form of the register was taken in November dividing it into civil and medical. The difficulty is about details. I now put it that the Civil Register as amended be approved, as far as we can approve it.

Carried.

MEDICAL REGISTER.

Dr. URQUHART.—Will the Committee facilitate matters by giving us a little information? What is an index symbol? What is decimal of a month?

Dr. NEWINGTON.—I can tell you that. Three days would be $\frac{1}{10}$ of a month, as near as may be.

Dr. URQUHART.—What about February? Why is not that explained in the Report? You see how to-day's proceedings have been lengthened out because we never knew what the Committee exactly meant.

Dr. NEWINGTON.—The Committee cannot be responsible for the failure of certain people to understand what should be perfectly clear.

Dr. BOND.—We agreed that an index of occupations would be necessary, and that it would facilitate tabulation if each occupation were provided with a numeral. But it will be still easier if, as explained already in the Report, that be not simply a numeral but a composite symbol. For instance, A 63 would represent one particular occupation. The Association will be provided with an alphabetical list compiled from, and strictly in accordance with, the Census Returns, each occupation automatically providing its own symbol.

Dr. URQUHART.—I understand we are in future to have a list of occupations. We will reserve any discussion until we see the list. It might have been in our hands to-day, and I think it should have been. With regard to decimals of a month, in the interests of the men who have to make up the Tables, the expression should be in years, months, and days, not in decimals of a month. I move an amendment that the period be stated in days, and not in decimals of a month.

Dr. BOYCOTT.—I second that.

Dr. ROBERT JONES.—It is the usual thing to refer to the duration of an illness in days, not in decimals of a month.

The PRESIDENT.—I will put this amendment.

Five voted in favour of the amendment and 3 against.

The PRESIDENT.—That is carried.

Dr. BOYCOTT.—It says, "Form of Mental Disorder (no entry to be made here in respect of congenital cases)." Why is that?

Dr. BOND.—Because they are expressed already to the left hand in "Attack." I may say with regard to that, that at an informal meeting with the English Commissioners it was evident it had their sympathy. They are willing to take this as it stands in regard to that particular point.

Dr. BOYCOTT.—I propose that the "Congenital" column be taken from the Attack column, and placed just before the column headed "Instances of Epilepsy" in the class "Congenital."

Dr. DRAPES.—I second that.

Dr. BOND.—Anyone who has worked the tables from the Register would be glad to see the four columns together, "Congenital," "First Attack," "Not First Attack," "Unknown whether First Attack or not." If you separate them it will be a thorn in the hand of the clerk who will have to prepare the tables.

Dr. DRAPES.—I think it should be put immediately before Congenital, so that there is one entry and not two. Put the original congenital cases with epilepsy, or without epilepsy, and the others afterwards.

Dr. BOYCOTT.—I agree with that.

The PRESIDENT.—What is it?

Dr. BOYCOTT.—Instead of the column entitled "Instances of Epilepsy" in the class Congenital, I propose that there should be two columns, both put under the form of mental disorder, stating, one, Congenital with Epilepsy, and one, Congenital without Epilepsy.

Dr. BOND.—There is a danger there, because the cases would then have to be placed in both columns, and the inserter of the cases might be in doubt whether it should be so or not. The Committee would deprecate any ambiguity as regards the scope of any column in the Registers.

Dr. NEWINGTON.—That was in our original Report.

The amendment was put to the meeting, and 1 voted in its favour and 6 against.

Dr. URQUHART.—What is the reason that the homicidal cases are omitted?

Dr. NEWINGTON.—The necessity for putting it in never came across us in that relation. The question of suicide there arose from the form of the Schedule A of the English Commissioners, in which they ask "Suicidal?" and we put to them, as we put to ourselves, the question as to when a person was supposed to be suicidal, whether on admission, during the course of the care, or at the time of the Report, and so on. Eventually they agreed to leave it as it is here. Many of these cases come in which are reported suicidal by outside people who are not so, and it was to get rid of error in that way, and to fix the opinion as to suicidal tendency, that it was put in this form. But the question of homicide never arose in this connection, because it was not in the original document.

Dr. URQUHART.—"Dangerous to himself or others" I think applies to that, and you should complete this statement by saying which are dangerous to others in the opinion of the medical officer.

The PRESIDENT.—There would then have to be two columns.

Dr. URQUHART.—Yes, that is what I propose.

Dr. HYSLOP.—I second that.

On being put to the meeting, 2 voted in favour and 6 against.

Dr. URQUHART.—We have not yet considered the Heredity Tables in this relation. The proud boast of the Committee is, that you can find in the Registers anything you have to tabulate.

Dr. BOND.—Not necessarily the material for Optional Tables, they do not include that.

Dr. URQUHART.—Is it not worth while having them if there is space? One should enter the exact relationship.

Dr. BOND.—We propose in our Report a special register, which should be employed by those who carry out the Optional Heredity Table.

Dr. NEWINGTON.—You recommend that we have publication of the Table and the Report. It is not any use trying to get collaborated work on this point, you cannot get it in bulk, but you can get it in a Special Report.

Dr. URQUHART.—I shall regret if heredity is not noted in the Register, if there is to be any effort on the part of our members to prepare these optional tables.

The PRESIDENT.—I will now put the Medical Register as already amended.

Carried.

REGISTER OF DISCHARGES AND TRANSFERS.

Dr. BOYCOTT.—Is this a Civil or a Medical Register ?

Dr. NEWINGTON.—There is no need nor opportunity to divide this in this direction. We have divided the present Register, as it now is in England. The facts of discharge and death are all recorded in separate Registers in Scotland, and we propose to follow this.

Dr. URQUHART.—What is meant by "Rate Paid" ? Is it payment in part, or in whole ?

Dr. NEWINGTON.—It is to get rid of the horrid word "pauper." In certain places, if patients pay a weekly maintenance rate, they are private cases. In others they would be still paupers. We use the word "Rate Paid" instead of "Pauper."

Dr. BOYCOTT.—I have an amendment to the Register of Discharges and Transfers. It does not show the mental disorder of the cases which have been discharged, except in respect of those discharged recovered. I do not know whether it is desirable to have that in.

Dr. BOND.—It is desirable to leave it as it is, because no table asks for that information, and, as it at present stands, the information can be totalled. It states, "Columns to be filled in only in respect of those Discharged Recovered." If you add to that the cases which have been transferred from the asylum, or other cases which have been discharged and not recovered, those columns will not be capable of being totalled, which is a great assistance in making the tables.

Dr. BOYCOTT.—I do not move any amendment, but I would point out that "Decimals of a Month" is given here again.

It was agreed to substitute "Days" for "Decimal of a Month."

The Register of Discharges and Transfers was agreed to.

REGISTER OF DEATHS.

This was agreed to without discussion.

The PRESIDENT.—There are two or three other resolutions, not involving debate, which will be put to the meeting.

Dr. NEWINGTON.—I move the second resolution. It runs, "That the Association approves of the preparation by the Committee of Compilation Forms."

Dr. YELLOWLEES.—I second that.

Dr. NEWINGTON.—Here you have a form which makes it easy to collect facts.

The resolution was carried.

The PRESIDENT.—We now come to Resolution 3, which Dr. Yellowlees will propose.

Dr. YELLOWLEES.—I propose "That the Association approves of the principle of the gratuitous supply annually of the Definitions and Tables, and of Compilation Forms to the Institutions named in the Report, and to such others, and to such other persons or authorities as the Council may direct, if on further inquiry it shall appear that the expense thereof be not more than the Association can conveniently undertake." This means a recognition on the part of the Committee that these Tables are somewhat complex and troublesome, and that until we get somewhat accustomed to them it will not be easy to get all to compile them. The idea is that the Association should spend some of its money in issuing blank forms of compilation tables and definitions to each asylum each year. That is the resolution proposed by the Committee, and now submitted to the meeting. Of course it is a resolution which involves considerable expense. I do not know how much, and the matter would require a special sanction on the part of the Council, but it would doubtless be given if you approved it, and thought it necessary for the carrying out of the system in the Tables.

Dr. URQUHART.—I second that, if it is understood that all the equivocal terms which have been now explained by the Committee are included in the definitions which the Committee will prepare.

The resolution was put and carried.

Dr. BOYCOTT.—Are they to be sent without request, or only at request ?

Dr. NEWINGTON.—To be sent automatically to all asylums and registered hospitals, and private asylums of a certain size, and any others who may ask for

them, and also to Leavesden, Caterham, and other big places which the Council may point out. The asylums will all have a right to have them automatically sent, but some other institutions will have to ask the Council for them. It will be a considerable expense. Of this particular one, 2000 copies will cost £6; the next 2000 will cost £4, so that 4000 will cost £10, and they will last for twenty years. It may cost £70 or £80 to begin with, but that additional cost will carry us over four or five years, and possibly more.

Dr. YELLOWLEES.—The next resolution is somewhat of a personal nature. It is "That it be recommended to the Annual Meeting of 1905 that the Committee be reappointed for another year to facilitate the initiation of the scheme as finally settled, and that the Committee be empowered to confer with the proper authorities as to the date on which it shall come into action." It enables us to wait upon various bodies concerned, and to arrange as well as we can for getting these tables into use.

Dr. HYSLOP.—I second that.

Dr. BOYCOTT.—There is nothing else to be done, but I specially wish to express my strong sentiment that the Tables require a considerable amount of revision before they are passed.

The resolution was carried.

Dr. NEWINGTON.—No doubt to-morrow we shall hear a vote of thanks passed with acclamation and with heartiness to our President for his work during the year; but I do think that we want to pass him an *ad interim* resolution of many thanks, and great thanks, for the long and careful attention which he has given to the work, and for his very great skill in piloting us through not only to-day, but in November. I move a very hearty vote of thanks to our President for his conduct in the Chair at this adjourned Annual Meeting.

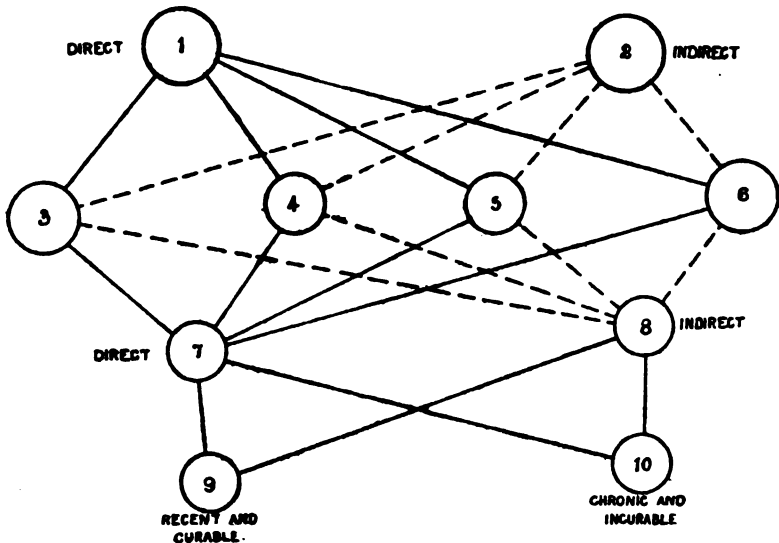
Dr. ROBERT JONES.—May I have the privilege of seconding this resolution which has just been proposed by our Treasurer? No one more than the Honorary Secretary knows what work the President does, quite apart from sitting in the Chair. All Minutes of Committees have to be submitted to him, also the Agenda, and it is only his great keenness and his methodical way which have enabled us to get through so successfully to the end of this year. I very cordially second this vote of thanks, which I have no doubt you will carry unanimously.

The vote was carried by acclamation.

The PRESIDENT.—You will not expect me to make a speech to-day as well as to-morrow, gentlemen, but I must say I thank you very heartily for your kind expression of thanks.

The meeting terminated at 6 o'clock.

I. Diagram, prepared by Dr. Urquhart, showing the impossibility of arriving at definite scientific conclusions by dealing with Admissions as Direct and Indirect Groups as proposed by the Statistical Committee.



3 represents First Attack, 4 not First attack, 5 First Admissions, 6 not First Admissions.

In Group 1 there are all kinds of cases; these may have been under care previously, they may suffer from organic cerebral diseases, they may be incurable recurrent cases, or senile cases of the worst type.

In Group 2 there are also all kinds of cases, recent and curable, as well as transfers of chronic cases and accidental acute cases from lapsed orders, etc.

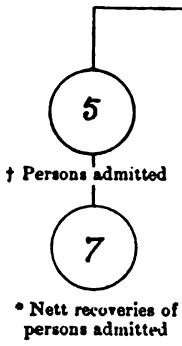
It is apparent that all these may be referable to groups 3, 4, 5, and 6, and again they may be gathered into Direct and Indirect Groups 7 and 8.

The distribution of Groups 7 and 8 may be Groups 9 or 10. Group 9 will necessarily contain many chronic and incurable cases, and Group 10 may contain certain recent and curable cases. Group 7 does not represent the occurring insanity even—it is subject to all kinds of exceptions.

It is evident that to exclude Group 10 from detailed consideration among the admissions, and at the same time to include the recoveries from Group 10 as applicable solely to Group 9 is a faulty calculation. Cf. Report, General Table II, column 11.

It is to be noted that the definition of Group 2 is entirely arbitrary; it is not a scientific nor a true classification.

II. Diagram



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MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN
AND IRELAND.

ANNUAL MEETING.

The sixty-fourth Annual Meeting of the Association began at 11 a.m., on Thursday, July 20th, 1905, at No. 11, Chandos Street, Cavendish Square, London, W.; Dr. R. Percy Smith, the retiring President, occupied the chair.

Present—Drs. W. Lloyd Andriezen, Mervyn T. Archdall, Henry T. S. Aveline, Fletcher Beach, C. Hubert Bond, David Bower, Arthur N. Boycott, John F. Briscoe, Patrick E. Campbell, James Chambers, John Carswell, Harry Corner, Sidney Coupland Maurice Craig, Francis G. Crookshank, Thomas O'C. Donelan, William Douglas, Thomas Drapes, Charles C. Easterbrook, Francis H. Edwards, G. Stanley Elliot, W. Gilmore Ellis, John E. M. Finch, Horace E. Haynes, John W. Higginson, Charles K. Hitchcock, Theo. B. Hyslop, Gerald H. Johnston, J. Carlyle Johnstone, Robert Jones, Neil T. Kerr, Harold A. Kidd, Richard J. Legge, William H. C. Macartney, Henry C. MacBryan, Peter W. Macdonald, Alan McDougall, Henry J. Mackenzie, Charles A. Mercier, William J. Mickle, Alfred Miller, Cuthbert S. Morrison, James Neil, H. Hayes Newington, Bedford Pierce, Evan Powell, Nathan Raw, Henry Rayner, J. Milsom Rhodes, George M. Robertson, Ernest F. Sall, George H. Savage, T. Clay Shaw, George E. Shuttleworth, R. Percy Smith, Robert H. Steen, Rothsay C. Stewart, Reginald J. Stilwell, Frederic R. P. Taylor, David G. Thomson, Alfred Turner, Alex. R. Urquhart, Frederick Watson, Lionel A. Weatherly, Ernest W. White, Albert Wilson, T. Outterson Wood, David Yellowlees.

The following sent apologies for non-attendance:—A. E. MacDonald (Hon. Member), Michael J. Nolan, Landel R. Oswald, Alex. R. Turnbull.

The following *visitors* were present:—Dr. E. W. Alexander, of New Zealand; Dr. Koch, of Missouri University.

The PRESIDENT.—I call upon the Secretary to read the minutes of the previous annual meeting. The minutes of the November and May adjournments have been printed in the JOURNAL, and it is usual to take them as read. With regard to yesterday's meeting, which, as you know, was still the 1904 meeting, the minutes of that must be read to-day. Is it your pleasure, first, that the minutes which have appeared in the JOURNAL be taken as read? (Agreed.)

The PRESIDENT.—I now ask the Secretary to read the minutes of the remainder of the annual meeting.

The SECRETARY (Dr. Robert Jones).—I wish to point out, Mr. President, that the meeting lasted from 10.30 a.m. to 6 in the evening, and I am sure members do not wish the whole of those minutes read, the verbatim notes of eight hours. There has not been any time to do more than get these minutes prepared from the notes, and of course they could not be handed to me until 10 o'clock this morning.

The PRESIDENT.—I am in the hands of the meeting with regard to the reading of these minutes. It is for the meeting to say whether they shall be read or whether they shall be taken as read. If the meeting to-day wishes to take them as read it will be, I believe, open to them to do so.

Dr. ROBERT JONES then read the minutes.

The PRESIDENT.—These minutes have now been read, is it your pleasure that they be confirmed?

Dr. URQUHART.—There are one or two small errors in the first part of the report, and I ask that the exact words of the first two motions submitted by me shall be entered in place of the reported words.

The PRESIDENT.—They will be incorporated.

Dr. URQUHART.—My motion was that the names of those voting, as taken down by the Secretary, shall be entered on the minutes; but I desire to express, what everybody must have felt, that we are extremely indebted to the shorthand writer for having sat out that very long and arduous meeting, and then by 10 o'clock this

morning having prepared such an accurate synopsis for the purpose of the minutes. (Hear, hear.)

Dr. CARLYLE JOHNSTONE.—Can we hear the resolutions which Dr. Urquhart moved?

The PRESIDENT.—The resolution is, "That no resolution of the Association passed to-day shall be final or binding until a report on the whole matter has been received from Professor Karl Pearson or some expert of equal eminence after consideration of the report of the Committee, and all relative documents submitted to them."

Dr. URQUHART.—We also want the names of those voting.

The PRESIDENT.—I will read the names; the Secretary has a list.

Dr. MERCIER.—I should like to make a remark upon a matter which arises out of the minutes, Sir. I was unfortunately prevented from being here yesterday; I could not have been present except at a great sacrifice. But that sacrifice I would cheerfully have submitted to had it not been that I understood at the previous meeting that the table comprising the forms of insanity was not to be passed, but was to be referred to the Statistical Committee for further consideration. It appears to have been passed in the identical form in which it originally stood, and for my own part I do not know whether it is now possible to reopen the matter. But I distinctly understood that a pledge was given that that table should be left open for reconsideration. I now understand, however, that the reconsideration was closed, and that the table stands as one of those sanctioned by this Association. If that is so I can only say I extremely regret it, because I do not think that that is a table which the Association should sanction, or which will gain for the Association any credit with any authority on the subject with which it deals. (Hear, hear.)

The PRESIDENT.—I may perhaps correct Dr. Mercier's recollection. At the meeting in November the table was passed provisionally, with the understanding that it should not be considered absolutely final, but that for the present as a working table it should go on, and that at a subsequent annual meeting it should be brought up again, that is to say, the whole question of classification, so that a new table for discharges and deaths should be framed.

Dr. MERCIER.—May we refer to the minutes of that meeting to see what pledge was given on the subject?

The PRESIDENT.—I was looking at the record of the proceedings of that meeting only yesterday. It is printed in the JOURNAL, and can be seen by anyone. It was provisionally passed.

Dr. MERCIER.—Yes, on the understanding that it did not pledge the meeting to adopt that table.

The PRESIDENT.—That did not apply to more than a limited time.

Dr. MERCIER.—I repeat, sir, that it is not creditable to the Association as a table, and it should not pass in its present form. It is manifestly tentative, and a mere formal table; indeed, almost in blank. It is a mere dummy table, which cannot possibly be regarded as a deliberate expression of opinion of this Association. (Hear, hear.)

Dr. NEWINGTON.—There is a little implication in the remarks of Dr. Mercier about a pledge which was given not having been exactly fulfilled. It was distinctly stated in the minutes that the table should come up again; it was open for discussion. The meeting was reminded that we were under a pledge to Dr. Mercier and others in the matter, and that we could make any other alterations. Alterations were proposed in it, and were resisted in debate, principally on that ground, namely, that it was put up in November and passed provisionally to come up for discussion yesterday, but with the understanding that if the Association chose to take it into its own hands at a future time it could do so. I think it will be found that the undertaking given in November was absolutely fulfilled yesterday.

Dr. YELLOWLEES.—I would like to say a word to emphasise what Dr. Newington has just said, and to explain that we faithfully kept promise, so far as the Committee were concerned, with Dr. Mercier. We did not attempt to alter it. We think with him that it is a very imperfect table, and we do not by any means pretend or desire that it should be a table in perpetuity. We wish the Association were wise enough to make a perfect table, and whenever it does we shall rejoice to see such a table substituted for this. When the Association thinks fit it can appoint a Committee for this purpose; but the table as now presented is the best

we can suggest at the present time. It can serve a temporary purpose, and although it is distinctly unscientific and imperfect, we think it is the best thing we can have until, as I say, we are able by increase of knowledge to attain to a perfect classification. Being under that impression we did not try to tamper with it in any way as it was left from the last meeting.

Dr. DOUGLAS.—It has been supposed that it will last for twenty years, because we are told the forms will last twenty years.

Dr. MERCIER.—My complaint is that the table has not been altered. What I say is that the pledge given to me was that as the table was passed formerly it was on the condition that the matter should be referred to a committee.

Dr. BEDFORD PIERCE.—The project that there should be a special Committee on classification came from the Northern and Midland Division. At the last meeting of that Division it was decided not to take any further steps in the matter. It is open to this meeting to take steps if they wish to do so.

The PRESIDENT.—I think notice should be given of that.

Dr. MERCIER.—But that postpones it for twelve months.

The PRESIDENT.—The General Meeting would have to take it up.

Dr. MERCIER.—It is competent for this Annual Meeting to appoint a committee, and I think the rules provide that the Annual Meeting can appoint a committee to sit on any subject it pleases, and no previous notice is necessary for the appointment of a committee. Committees have frequently been appointed without notice upon matters arising in discussion which have taken place in the Association, and if I am in order I will move that a committee be appointed.

Dr. BOYCOTT.—There is no notice providing for the reappointment of the Statistics Committee on the agenda.

Dr. CARSWELL.—I would suggest, as a means of keeping Dr. Mercier's suggestion alive that, on the motion which Dr. Yellowlees will now submit, it would be competent to move a direction to the Statistical Committee to keep in view this very question, and to bring the matter up again at the next Annual Meeting.

Dr. MERCIER.—I move that a committee be appointed to draw up a table of disease, and leave the nomination of that committee to yourself, Sir.

The PRESIDENT.—Does any one second Dr. Mercier's proposition?

Dr. DRAPES.—I second it.

Dr. NEWINGTON.—I am sure that Dr. Mercier's suggestion that this question should not be remitted to this present Statistical Committee has the heartiest acceptance of our committee. (Hear, hear.) I must say that we were stopped from interfering with this table by the very representation which Dr. Bedford Pierce has brought before us from a Branch Meeting. We were told to put all our work before the Branch Meetings, and we did; and we got an instruction from the Northern Division that we should recommend that the matter should be put into the hands of the Association generally; therefore we did no more work on it. But as for joining a committee, I do not think many members of the committee which has been working at statistics would contemplate being on that committee.

On being put to the meeting, 16 voted in favour, 8 against.

Dr. YELLOWLEES.—In accordance with a motion read to you as part of yesterday's annual adjourned meeting, I have to now move that the committee which have been for three years engaged on these tables may be reappointed for another year, in order to complete their work. It can then finish its communications with various bodies, and facilitate getting these tables into circulation and use as early as possible. Of course you have decided to seek another table for the forms of insanity. To that, as a committee, we can have no shadow of objection, and we expressed this at our last discussion in November. I think it is brave, even rash, in the Association to have come to that resolution, especially in the light of our imperfect knowledge, and after all the experience we have of past failures to attain anything like a perfect classification. And therefore it is with all humility I suggest that we be reappointed as a Statistical Committee to complete our work, the table in question serving for present purposes until this perfect one, which is yet in the clouds, be obtained. I beg to move, "That it be recommended to the Annual Meeting of 1905 that the Statistical Committee be reappointed for another year to facilitate the initiation of the scheme as finally settled, and that it be empowered to confer with the proper authorities as to the date on which it shall come into action."

Dr. NEWINGTON.—I second it.

Dr. BOYCOTT.—Is there an opportunity of speaking on this subject?

The PRESIDENT.—Not on the tables in general.

Dr. BOYCOTT.—The question of the tables is inextricably mixed up with the appointment of the committee to do the work.

The PRESIDENT.—The motion is, that the committee be reappointed to carry out these tables.

Dr. BOYCOTT.—To finish their work. I do not wish to be an obstructionist, but I think we should be able to state objections to the work which they are to be reappointed to finish.

The PRESIDENT.—I think that is all settled, in accordance with what passed yesterday. We simply cannot debate it all again to-day. If you object to the committee being reappointed you can vote against it.

Dr. BOYCOTT.—Will the committee bring up a report again?

Dr. NEWINGTON.—The resolution is that the Statistical Committee be reappointed for another year, to facilitate the initiation of the scheme as finally settled. It also empowers the committee to confer with the proper authorities, and that is one point which we want. We also want to settle the date on which it should come into operation.

The PRESIDENT.—A Committee appointed by the annual meeting will have to report again.

Dr. BOYCOTT.—I propose, as an amendment to it, that the words "to facilitate the initiation of the scheme as finally settled" be omitted, and that the words be added, "to further report at the next annual meeting."

Dr. NEWINGTON.—That would delay the whole thing another year. The resolution is proposed in order to enable the Committee to see the Commissioners, and to confer with them as a committee as to the date on which this scheme shall be brought into action. Of course, alteration of the registers involves an alteration in the statutory documents which appear in the schedule of the Lunacy Act, both in England and Scotland, and presumably in Ireland. Those documents cannot be touched, except by the authority of the Lord Chancellor of England, the Irish Secretary, and the Scottish Secretary; and after their sanction has been obtained, notice of the alteration has to be laid on the tables of the Houses of Parliament within a certain time after the commencement of the session for the same time as Provisional Orders. If we cannot come to some arrangement authoritatively with the Commissioners, they are not likely to go forward and give the notice for the alteration for another year. This motion enables us to deal authoritatively from the Association, so that they can get into action if they please.

Dr. CARLYLE JOHNSTONE.—I understand the question to be the confirmation of the minutes.

The PRESIDENT.—This proposition has been made arising out of the minutes, and an amendment has been moved to it. I shall put the amendment. It is that these words be left out: "To facilitate the initiation of the scheme as finally settled," and that the following be substituted, "and report to the next annual meeting."

The amendment was then put, when nine voted in favour and seventeen against.

The PRESIDENT.—I will now put Dr. Yellowlees motion. Carried by twenty against five.

Dr. DOUGLAS.—Is that the Committee provided for by Dr. Mercier's motion?

The PRESIDENT.—No. Is it your pleasure that these minutes be confirmed? Carried.

ELECTION OF OFFICERS AND COUNCIL.

The PRESIDENT appointed four scrutineers to superintend the ballot—Dr. Easterbrook, Dr. Macdonald, Dr. Taylor, and Dr. Bedford Pierce. The Secretary draws my attention to a small error in the name of Dr. Graham; it is put in the list as Dr. Robert A. L. Graham; it should be W. Graham. The list, as submitted to the meeting, was confirmed unanimously.

<i>President</i>	T. OUTTERSON WOOD.
<i>President-Elect</i>	ROBERT JONES.
<i>Treasurer</i>	H. HAYES NEWINGTON.
<i>General Secretary</i>	ROBERT JONES.
<i>Registrar</i>	ALFRED MILLER.
<i>Editors</i>	{ HENRY RAYNER. CONOLLY NORMAN. A. R. URQUHART. JAMES CHAMBERS.

Nominated Members of Council.

FLETCHER BEACH, T. S. CLOUSTON, WILLIAM GRAHAM, GEORGE H. SAVAGE, F. R. P. TAYLOR, ARTHUR A. D. TOWNSEND.

Officers and Council elected by the Divisions.

South-Eastern Division.—DAVID BOWER, DAVID S. THOMSON, JOHN TURNER, ERNEST W. WHITE, ROBERT H. STEEN (Secretary).

South-Western Division.—HENRY C. MACBRYAN, PETER W. MACDONALD, HENRY T. S. AVELINE (Secretary).

Northern and Midland Division.—SAMUEL EDGERLEY, CHARLES K. HITCHCOCK, RICHARD J. LEGGE, BEDFORD PIERCE (Secretary).

Irish Division.—THOMAS DRAPES, MICHAEL J. NOLAN, WILLIAM R. DAWSON (Secretary).

Scottish Division.—ADAM R. TURNBULL, DAVID YELLOWLEES, LEWIS C. BRUCE (Secretary).

ELECTION OF MEMBERS OF STANDING COMMITTEES.

Dr. ERNEST WHITE.—I beg to propose the addition to the list, as recommended by the Parliamentary Committee yesterday, of the name of Dr. Thomas Seymour Tuke.

Dr. THOMSON.—I beg to second that. (Agreed).

EDUCATIONAL COMMITTEE.

The PRESIDENT.—The names recommended, and approved by the Council, are set out here. Are there any additional ones to be proposed?

The list as submitted was agreed to.

LIBRARY COMMITTEE.

The PRESIDENT.—There are three names recommended to form this Committee—Dr. Fletcher Beach, Dr. Henry Rayner, and Dr. Outterson Wood; and they are approved by the Council.

Dr. RAYNER.—I propose that Dr. Cole be added.

Dr. FLETCHER BEACH.—I shall be glad to second that. (Carried).

The PRESIDENT.—With regard to the Examiners, I understand Dr. Goodall is unable to serve.

Dr. CRAIG.—I beg to move that Dr. Robert Jones be appointed Examiner for England for the Medico-Psychological Certificate and the Gaskell Prize in place of Dr. Goodall. (Carried).

The PRESIDENT.—The others are the recommendations of the Council. Is it your pleasure that they be elected Examiners?

Dr. DOUGLAS asked for information regarding the composition of the Nominations Committee.

The rule referring to this matter was quoted and the procedure explained.

On the motion of Dr. MERCIER, seconded by Dr. WHITE, it was agreed that the attention of the Nominations Committee be drawn to the unwieldy size of the standing committees.

TREASURER'S REPORT.

Dr. NEWINGTON.—I lay on the table the Report, a copy of which you all have. It is more satisfactory than usual. We have a gross profit of £152, which is reduced by writing off unpaid subscriptions and a fall in the value of stocks to

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.—For the Year 1904.

REVENUE ACCOUNT—January 1st to December 31st, 1904.

Dr.		Expenditure.		Income.		Cr.	
1903.	£ s. d.	1904.	£ s. d.	1903.	£ s. d.	1904.	£ s. d.
To Journal, Printing, Publishing, Engraving, Advertising, and Postage ...	577 9 9	£ 54 16 7	By Dividends ...	198 9 3	£ 19 13 11	£ 20 0 11	£ 16 13 11
Examinations, Association Prizes, and Clerical Assistance to Registrar ...	209 5 8	192 19 9	" Sale of Journal ...	20 4	189 8 6	43 8 0	34 0 0
Petty Disbursements, Stationery, Postages, etc.	38 1 2	36 5 3	" Sale of Handbook ...	43 8 0	33 10 1	262 3 7	33 10 1
Annual, General, and Divisional Meetings	132 15 6	126 16 11	" Advertisements ...	9 9 0	6 6 0	9 9 0	6 6 0
Rent of Premises at 11, Chandos Street, care of Office, etc.	51 0 0	52 5 0	" Fees, Certificates of Psychological Medicine	214 16 6	221 9 6	324 5 6	221 9 6
Audit and Clerical Assistance ...	6 6 0	6 6 0	" Fees, Certificates of Proficiency in Nursing	...	681 9 0	653 12 6	6 6 0
Miscellaneous ...	182 13 0	92 19 0	" Subscriptions
Library ...	6 0 0	3 1 4					
Balance ...	6 16 5	1035 9 10					
	£ 1155 0 6	152 9 2					£ 1187 19 0 £ 1155 0 6

BALANCE-SHEET—31st December, 1904.

1903.		1904.	
£ s. d.	£ s. d.	£ s. d.	£ s. d.
Assets.		Liabilities.	
Lloyd's Bank:—Bankers ...	£ 460 19 6	Journal Account, balance of ...	£ 8 15 4
New Zealand Stock ...	394 14 10	Examinations Account, balance of ...	0 0 0
5% per cent. value at this date	314 6 5	Petty Disbursements Account, balance of ...	22 13 11
Hack Tuke Memorial ...	87 17 1	Meetings Account, balance of ...	13 11 9
Victoria Stock: ...	189 11 6	Gaskell Fund ...	127 1 6
Dr. Paul's bequest ...	189 11 6	Rent Account ...	15 10 0
Subscriptions Account, balance ...	166 13 0	Miscellaneous ...	0 7 0
Sales Account, balance ...	38 1 2	Balance on 1st January ...	1267 16 11
Fees Account, balance ...	0 0 0	Add:—Balance of Revenue Account ...	152 9 2
Gaskell Fund ...	0 0 0		1420 6 1
Examination Account, balance ...	10 0 0		
	£ 1566 3 6	Liabilities.	
	£ 1566 3 6	Decrease in value of New Zealand Stock ...	£ 9 6 7
		New Zealand Stock (Hack Tuke Memorial) ...	9 12 5
		Victoria Stock ...	1 0 8
		Subscriptions written off ...	32 11 0
			52 10 8
			1967 15 5
			£ 1566 3 6

H. HAYES NEWINGTON, TREASURER.

about £100. I do not think there is any point upon which one can usefully say anything. The expenses have been well kept down, and the income has gone on very satisfactorily. With regard to another fund, the Gaskell Fund, on my recommendation a further sum of £300 was added to the capital of this fund. The original capital stands at about £1360 in value, and £300 has now been added to that. The sum now invested arises from the failure of any qualified gentleman to come forward and gain the valuable prize which is offered annually. This has been going on for a long time. The question has been brought before the Educational Committee, and no doubt they will consider whether some means can be devised within the trust deed for preventing this waste of good opportunities. I move the adoption of my report.

The report was agreed to.

The PRESIDENT.—It is evident that the Treasurer's Report meets with general approval.

AUDITORS' REPORT.

Dr. F. H. EDWARDS.—I think the Auditors have no special comment to make upon the Balance-sheet. I will read the report: "The Auditors beg to report that they have examined the accounts and vouchers of the Association for 1904, and have checked the receipts and expenditure, and certify the same and the Balance-sheet to be correct.

" H. GARDINER HILL, }
" FRANCIS H. EDWARDS, } *Auditors.*"

Dr. CRAIG.—I second the Report.

The Report was put and carried.

The PRESIDENT.—The Auditors proposed for the ensuing year are Dr. Edwards and Dr. Beveridge Spence.

Dr. ERNEST WHITE.—I shall be glad to propose Dr. Edwards and Dr. Beveridge Spence.

Dr. OUTTERSON WOOD.—I second that. (Carried.)

REPORT OF THE EDUCATIONAL COMMITTEE.

Dr. CRAIG read the report of the Educational Committee:

The Educational Committee have held many meetings during the year, and have had several important subjects before them for consideration. Among other matters the following have been dealt with:

The question as to what time of day was most convenient for holding the written portion of the Nursing Certificate Examination was again discussed in order to see if it were possible to arrange a uniform time for all asylums. It was considered that if, in two neighbouring asylums, the written examination was held in the morning in one and in the afternoon in the other, it was possible for candidates in the second asylum to get to know the questions. A circular was sent round to the superintendents inquiring the most convenient time for holding the examination.

Seventy *per cent.* of the replies gave the morning and 25 *per cent.* the evening.

Finally it was resolved that when two asylums were in such proximity as to render it possible to communicate the questions of the written examination from one to the other, in the limits of a day, it should be left to the superintendents of such asylums to arrange with one another the time of the examination, so as to render such communications impossible.

The desirability of making a rule to the effect that the period of training in an institution for the treatment of mental disorders, as prescribed by the nursing regulations, should be served in one such institution has been discussed, but the Educational Committee decided not to advise such a restriction.

A matter which has given rise to much discussion is the question as to what date the new nursing regulations should come into force.

At the meeting held at York it was resolved that three years training should be required by all nurses who present themselves for examination after the 30th day of April, 1905. This matter was again brought up in May, and after a long discussion it was resolved to recommend to the Council that, considering that the date fixed at York for the commencement of the operation of the three years' rule was fixed under a misapprehension as to its effect upon the candidates already in training, this Com-

mittee recommends that candidates who have commenced their training prior to the Annual Meeting in 1904 be eligible under the old regulations.

At the meeting held at York it was decided to recommend that after the examination in July, 1905, the examinations for the Medico-Psychological Certificate be discontinued. The adoption of such a course is now found to be impossible as one of the fundamental rules for a candidate for the Gaskell Prize is that he shall hold the Medico-Psychological Certificate. It is therefore decided that the examination must continue until the difficulty regarding the Gaskell Prize regulations is overcome.

Cases of copying have been reported by the examiners in the case of papers from a certain asylum at the recent Nursing Certificate Examination. The identity of this asylum is unknown except to the Registrar. The matter was referred to a sub-committee, who have reported that they are satisfied that the alleged copying did actually take place, and accordingly those candidates have been disqualified.

The Education Committee considered whether the asylum in question should be debarred in the future from sending any further candidates for the examination, but have decided that no such action should be taken. Nevertheless, in order to draw attention to the seriousness of copying, the Committee recommend that notice of this special case should be published in the JOURNAL without naming the asylum in which it occurred.

The Registrar reported that, during the year, 1071 candidates have entered for the Nursing Certificate, and that 584 certificates have been granted.

Dr. Mercier has been appointed Chairman of the Educational Committee, and consequently has retired from the post of Secretary, a position which he has held with untiring zeal for twelve years.

Dr. Maurice Craig has been appointed Secretary in the place of Dr. Mercier.

The PRESIDENT.—Dr. Craig has been elected by the Committee as its Secretary to succeed Dr. Mercier. I think that should be stated, to make the Report complete.

Dr. ERNEST WHITE.—I second the adoption of that Report.

Dr. D. G. THOMSON.—With regard to the candidates who were disqualified, are they disqualified for ever, or merely till another examination?

Dr. CRAIG.—Only from the recent examination.

Dr. URQUHART.—The Report says nothing further is to be done, and I think it would be a useful addendum to say this action is not to be regarded as a precedent; that is, the action of the Association in regard to this particular case. I think we should guard against a repetition of this offence.

The PRESIDENT.—Do you move anything?

Dr. MERCIER.—This sort of thing has happened before. It is not an isolated instance, though it did not happen before at the same asylum. There has been copying at another examination.

Dr. ERNEST WHITE.—I think we must deal lightly with the case. Should the disease continue we shall be able to adopt a more radical remedy.

The PRESIDENT.—Dr. Urquhart's question is whether this meeting can lay down any guidance with regard to the cure or the remedy, or whether it can apply any drastic treatment to such a case. Do you move any suggestion?

Dr. URQUHART.—That in approving of the Report this particular finding is not to be considered a precedent.

Dr. RAYNER.—You cannot do more than that, because the rules only allow for disqualifying. We came to that decision yesterday. If we want to take further steps we can alter the rule.

Dr. CARLYLE JOHNSTONE.—Every institution should be recognised, and you can withdraw your recognition at any time.

Dr. URQUHART.—I think the attention of the meeting having been drawn to it will serve the purpose perfectly well. I withdraw my proposal.

Dr. MERCIER.—May I make one further suggestion? This is a very serious matter indeed, this matter of copying, and I think it should go forth to the Association that an institution in which it takes place is liable to have its recognition withdrawn; every institution has to be recognised as a place of training for nurses by the Council of this Association, and it should be understood that the Council has power to withdraw that recognition if it chooses. And I can imagine no more proper occasion for withdrawing that recognition than the discovery that the examination in an institution is not properly conducted. (Hear, hear.)

The PRESIDENT.—Have we power in the rules to withdraw recognition ?

Dr. CARLYLE JOHNSTONE.—The Council may or may not recognise.

Dr. DOUGLAS.—Having recognised, it can withdraw.

Dr. MERCIER.—I do not move anything, but I wish it to appear on the report of this meeting.

The PRESIDENT.—I now put the Report of the Educational Committee. (Carried.)

REPORT OF THE EDITORS.

Dr. RAYNER.—The Editors beg to report that there has been no change in the arrangements for the issue of the JOURNAL during the past year. The number of journals printed remains the same, viz. 1075. The number of members receiving the JOURNAL has increased from 645 to 670. The receipts from advertisements have increased to £43 8s. The Editors wish especially to thank the Assistant Editors, Dr. Chambers and Dr. Lord, for the very important help that they have given during the past year.

(Signed) H. RAYNER.
A. URQUHART.

Dr. MAURICE CRAIG.—I second it. (Carried.)

REPORT OF THE PARLIAMENTARY COMMITTEE.

The Parliamentary Committee beg to report that, *inter alia*, the work of the year has included the following items :

(a) *On the registration of mental nurses.*

The Chairman of the Committee attended the Select Committee on the State Registration of Nurses at the House of Commons on June 27th last, and gave evidence, extending over a period of an hour and a half, upon the origin and development of the Medico-Psychological Association, the origin and development of its nursing certificate, the syllabus, handbook, examination papers, and the nature of the clinical training and *vivâ voce* examination. He also stated that 6500 candidates had obtained the certificate, since its inception in 1890, and that 75 per cent. of the candidates had passed and 25 per cent. had failed. The appointment of independent examiners and the valuation of the *vivâ voce* examination by assessors was fully explained. The increasing necessity of this certificate for promotion in asylums was alluded to. In concluding he asked that mental nurses, male and female, should be made eligible to any scheme of State Registration which may be adopted, and he ventured to hope that the Medico-Psychological Association would be represented on any State Registration Board. During cross-examination he explained the composition and election of the Council, suggesting that, if necessary, Divisional Registration Boards might be formed, expressed his opinion that the registration fee should not exceed £1, and finally, when asked if State Registration were adopted, would the Medico-Psychological Association undertake to register the mental nurses, he replied in the affirmative, and added they would assist State Registration in every way, and would make their register subservient to it.

(b) *Leave of absence.*

Dr. Weatherly brought before the Committee a disputed readmission during leave of absence, in which the Commissioners in Lunacy had given the opinion that the patient could not be brought back to the asylum as the term of leave had not expired, and that fresh certificates were therefore necessary. After full correspondence with the Commissioners, and after they had obtained a further opinion of the Law Officers of the Crown, the Commissioners decided "that leave for a fixed period, but revocable before the expiration of that period, would be good if so expressed, and also that leave could be granted for an indefinite period revocable at any time. On revocation the patient might be retaken if he did not return." At a later meeting the Committee asked the Commissioners to issue forms for these cases, and to state in whose hands the power of revocation rests, to which the following reply was received :—"In reply to your letter of the 22nd inst., I have to state that the view of the Commissioners in Lunacy is that power to revoke leave of absence should, at the time when such leave is granted, be reserved, in the cases of patients in asylums, hospitals, or licensed houses to the medical officer, and in

the case of single patients to the medical attendant. For so simple a process no form appeared to be necessary." It is proposed to make this generally known in the specialty.

(c) *Disqualifications under the Lunacy Act, 1890.*

These disqualifications brought before the Committee by Dr. Mercier have been considered, and it was resolved that the authorities in charge of the Attorney-General's Bill, dated April 17th, 1905, should have their attention drawn to the temporary disqualifications of persons interested in licensed houses with a view to their removal, and that the Commissioners in Lunacy be asked to receive a deputation consisting of the Chairman (Dr. Ernest White), Dr. Mercier, and the Honorary Secretary to the Committee (Dr. Fletcher Beach). The Commissioners consented to receive a deputation on Wednesday, the 5th of July, when the above-named members attended, and, after the Chairman had introduced the deputation and stated its object, Dr. Mercier fully explained the disqualifications referred to. The Commissioners quite saw the justice of the case, but have since sent a letter saying that, inasmuch as no immediate legislation is possible, the matter will be fully considered at the first Board meeting after the vacation. A copy of the evidence submitted to the Commissioners has been forwarded to them, and another copy has been sent to the Attorney-General, together with a letter in which his attention has been drawn to these disqualifications and a hope expressed that in any future Bill he may be able to remove them. An answer has been received in which he says that the letter shall have every attention.

(d) *Making the Elementary Education (Defective and Epileptic Children) Act, 1890, compulsory on all school authorities.*

This question has been considered at two meetings of the Committee, and, finally, it was resolved "that in the opinion of this Committee the attention of the school authorities should be drawn to the powers they possess under the Elementary Education (Defective and Epileptic Children) Act, 1890, and it is the opinion of this Committee that these powers should be more generally effectively used," and that this resolution should be transmitted to the Honorary Secretary of the Parliamentary Committee and to the Boards of Education for England, Scotland, and Ireland. The Honorary Secretary of the Committee made use of this resolution when giving evidence before the Royal Commission for the Feeble Minded, and the resolution has been forwarded to the three above-named Education Boards, and acknowledged by them. The Secretary of the English Education Board has also laid the resolution before that Board.

(e) *The introduction of pension clauses into the Attorney-General's Bill, dated April 17th, 1905.*

This point has been carefully considered, and a resolution has been forwarded to the Attorney-General and acknowledged by him that, while fully appreciating generally the principles of the Bill, the Parliamentary Committee is of opinion that it should contain pension clauses.

(f) *The Lunacy Acts Amendment (London) No. 2 Bill.*

This Bill has been considered and it has been decided that it should be opposed, and it was left to the Chairman (Dr. Ernest White), Dr. Percy Smith, and the Honorary Secretary of the Committee (Dr. Fletcher Beach) to formulate objections to the Bill and bring them before the proper quarter. Four objections were drawn up and forwarded to Sir John Batty Tuke, who introduced the Bill and they have been acknowledged by him in a letter in which he says that they will receive his full consideration.

Dr. ERNEST WHITE presented this Report, and moved its adoption.

Dr. MERCIER.—The Commissioners in Lunacy have not seen their way to comply with the request of the Parliamentary Committee to draw up a form of leave of absence. I think we must agree with Dr. White that as an action has been brought and decided against the asylum authorities on this point, it would be very convenient to members of the Association if some authoritative form could be settled; and therefore I suggest that it should be remitted to the solicitor of the Association to have such a form drawn up, and settled by counsel, for the use of members of the Association. I second the adoption of the Report.

Dr. ERNEST WHITE.—I will add that to the original suggestion.

Dr. NEWINGTON.—I know the present condition of affairs is very perplexing,

even to trained legal minds, and I think Dr. Mercier is right in suggesting it should be settled by this Association.

Dr. ROBERT JONES.—The clerk to the London County Council and the chairman of the Asylums Committee of the Council have seen the Lunacy Commissioners on this very matter, and, as a result of their interview, a form has been drawn up, which is in use now at Claybury.

Dr. MERCIER.—But the Commissioners have definitely refused to draw up a form at the request of the Parliamentary Committee, and it is in default of any official form that we should have one drawn up by our solicitor. We are bound to safeguard the interests of all our members. It may be that legal assistance is available for the London County Council, but it is not available for the humble single-care members.

Dr. Mercier's resolution was then put and carried.

Dr. DOUGLAS said that, in view of the importance of the reports which are presented by the various standing committees, it would, in his opinion, greatly facilitate the transaction of the business of the Annual Meeting if these reports were printed beforehand and circulated amongst the members. He accordingly moved that the attention of the Council be drawn to this matter.

This was seconded by Dr. URQUHART, and carried.

Dr. CARSWELL dissented from the findings of the Parliamentary Committee, as stated in their objections to the Lunacy Acts Amendment (London) No. 2 Bill. He referred to his own work, and asked the members of the Association to defer an expression of opinion until after he had placed before them the record of what has been accomplished in Glasgow.

A discussion followed, in which very complimentary references were made to Dr. Carswell's work.

On the motion of Dr. CARLYLE JOHNSTONE, seconded by Dr. DOUGLAS, it was resolved to delete from the Parliamentary Report the reasons there given for opposing the above-mentioned bill.

The PRESIDENT then put the Parliamentary Report as amended, and it was adopted.

NOMINATIONS COMMITTEE REPORT.

The PRESIDENT.—That is embodied in the Officers and Committees already appointed.

LIBRARY COMMITTEE.

Dr. FLETCHER BEACH read this report, and moved its adoption.

REPORT OF THE LIBRARY COMMITTEE.

During the past year there has been an increase in the issue of books, some members calling for books at the Library, and others being sent to members by post. Additions to the Library have been acquired both by purchase and presentation, and the Committee beg to thank authors for their kindness in responding to the invitation to present their works to the Library. The list of additions has been duly reported in the Journals. It is proposed to continue the subscription to Lewis's Library, so that books of psychological interest which are not in our Library can be procured forthwith and sent to members. A new book-case has been purchased, and the Library is in good order.

Mr. George Bethell has been appointed to succeed the late Mr. Hall as Librarian. The Committee tender to Dr. R. H. Cole their thanks for his services as Hon. Secretary, and recommend that his name be added to the Library Committee.

The report was seconded and carried.

REPORT OF THE COUNCIL.

Dr. ROBERT JONES, as Honorary Secretary, presented the report, and moved its adoption.

As in previous years, so during the past year, the Association has increased its membership, as the following table shows:

Members	1897	1898	1899	1900	1901	1902	1903	1904
Ordinary . . .	524	540	550	568	580	586	597	620
Honorary . . .	38	38	36	38	37	37	36	35
Corresponding .	12	12	12	10	11	12	12	15
Total . . .	574	590	598	616	628	635	645	670

The Association has lost by death its former Registrar, Dr. Harry Arthur Benham, and also its President-Elect, Sir John Sibbald, whose painful illness was a matter of regret to all.

The general meetings have been well attended, as also have those held in the various divisions. At the February meeting the Association was hospitably entertained at the North Riding Asylum, in York, and the thanks of the Association were expressed to Dr. J. T. Hingston, who has since resigned the Medical Superintendency, for his kind reception.

The Statistics Committee, appointed at the Annual Meeting held at Liverpool in 1902, has now issued its final report, which was considered and adopted at the adjourned annual meeting held yesterday, July 19th.

The special thanks of the Association are due to Dr. Yellowlees, the Chairman, and to the members of the Committee, viz.:

Drs. H. Rayner, T. B. Hyslop, R. S. Stewart,
 J. R. Turnbull, C. Easterbrook, M. J. Nolan,
 W. R. Dawson, H. Hayes Newington, R. Bedford Pierce,

and in no small degree to the Secretary, Dr. Hubert Bond.

The report demonstrates an enormous amount of work, and the Tables will be a valuable help in collecting and classifying facts relating to the incidence and cause of mental diseases.

The thanks of the Association are due, as heretofore, to the Editors of the JOURNAL, which has maintained its standard.

The finances of the Association are in a very satisfactory state. Revenue has increased and expenditure has diminished, and the thanks of the Association are again cordially expressed to its Treasurer, whose interest in the welfare of the Association continues unabated.

The Educational Committee, now under the Chairmanship of Dr. C. A. Mercier, having recommended that the nursing curriculum for the certificate of proficiency in nursing be extended from two to three years, and also that the period of service in two asylums be recognised by the Association as a part of this time, the Association at the last Annual Meeting has agreed to this, giving the Educational Committee power to fix the date of initiation, which it has done as from May, 1906.

The Parliamentary Committee, under the Chairmanship of Dr. E. W. White, has watched legislation relating to insanity, also relating to the registration of nurses, and the Committee has continued to take especial interest in the question of pensions for those who devote their lives to the service of the insane.

Dr. URQUHART.—I have much pleasure in seconding the adoption of the report of the Council, and, as usual, I direct the attention of the Association to the obligation that we ought to thank the General Secretary for the enormous amount of work which he has done, not only during the past year, but for the many years he has occupied the position of General Secretary. I rejoice to see that Dr. Jones is to rise to still higher honours next year, and I am sure we all congratulate him, not only on the honour of the future, but on the honours which he has gained in the past. (Hear, hear.)

Dr. ROBERT JONES.—I should indeed be impervious and indifferent if I did not appreciate your too-flattering remarks. You have referred to the fact that the Association has sufficient confidence in me to place me as its figure-head in the coming year. I need not say how glad I am that I have found a marshal's bâton in my knapsack, and that I have had the opportunity of rising in your opinion to higher distinctions than I now occupy. May I say that if you will take my very earnest interest in the welfare of the Association in the past as my disposition in the future, I can unhesitatingly promise that I will do the best I can to follow the traditions of the long list of distinguished predecessors who have done honour to the Chair.

The PRESIDENT.—Is it the pleasure of the meeting that this Report be approved? Carried.

Dr. ERNEST WHITE.—Arising out of this Report, I have to propose that we accord our sympathetic and most sincere thanks to the Statistical Committee, which has done such an enormous amount of work during the past three years. The Chairman is our much-respected past-president, Dr. Yellowlees, the Secretary is Dr. Hubert Bond, and in the other members are included our much-revered Treasurer and several of the young bloods of our ranks. I am sure that, whatever difference of opinion there may be about the Tables and the minute detail connected with the working of them, one and all will be of opinion that every man on that Committee has done his best in the interests of the Association and for the benefit of suffering humanity. I have, therefore, very much pleasure in proposing a hearty vote of thanks from this Association to the Statistical Committee, and especially would I associate with that vote of thanks a recognition of the untiring energy that has been devoted to its labours by the Secretary, Dr. Hubert Bond. (Applause.)

Dr. URQUHART.—I suppose that, as one of those who were amongst the most captious critics of this Committee, I may be allowed to say a word of appreciation of their eminent merits on the conclusion, or the approaching conclusion, of their labours. I profoundly differ, of course, from a great many of their findings, and I am sure you will excuse me for not pursuing that part of the topic at any length this afternoon. But when I remember how Dr. Bond brought this subject before the Association in Liverpool three years ago, and the immense amount of trouble that he has taken in regard to every detail in connection with the Tables, I am sure the Association will render him very hearty thanks on this occasion. Dr. Bond is not the sort of man who produces an idea from his own inner consciousness, and drops it in an instant and runs away from it. He has worked out thousands of cases in his own particular way, and has shown that what he has proposed is capable of being done by any man who has the energy and the ability, and the time and the patience to pursue investigation along these particular lines. I have great pleasure in seconding this vote of thanks.

The resolution was carried by acclamation.

Dr. YELLOWLEES.—I wish to acknowledge your kind thanks, and specially to emphasise the services which Dr. Bond has rendered. He was always with us, and always ready with information of every kind; he has always taken a great deal of personal interest and trouble in the matter, and I am very glad indeed that the vote of thanks has been associated with him. With regard to the general question, I feel now that we have been, if possible, too considerate of the numberless suggestions that came to us. They came to us all in a tremendous rush at the last, when the work was, as we thought, largely done; and we had to interfere with a great many things which I personally believe we had better have left as they were. We were anxious to please as many members as possible, and I think that we have pleased the majority.

Dr. NEWINGTON.—I would say a word, not for myself, or for any other member of the Committee except Dr. Bond. I wish to add my testimony to what Dr. Yellowlees and others have said. Nobody knows in the least, except those who have worked with him in these years, what Dr. Bond has done; and, whatever the defects of that long report may be, one of its glories is that no one has shown an *impasse* in it or an absurdity. As it now stands it has not been constructed from the beginning, which would have been comparatively easy, but it has been torn up two or three times; and I think that it is a notable tribute to Dr. Bond's ability and extreme care that no arithmetical fault has been found in it.

Dr. BOND.—What I have just heard has astounded and surprised me immensely.

I was very nearly prevented from coming to-day, and I had no idea that it was in store for me to hear what I just have. It is altogether too kind. I think all of us would say that whatever we have done in connection with the statistics has been really a labour of love. Our meetings together have been of the pleasantest; but why my name should be so signally emphasised in the way it has been I cannot see. There is the Chairman on my right, and the Treasurer on my left, and neither of them has missed a meeting. The Chairman came very many miles, and I feel that altogether too much credit has been given to me. I can only say that whatever good comes out of the Tables will be the reward of the members of the Committee and myself. I thank you once again.

Dr. DRAPES.—I understood a resolution was passed referring a table to a Committee. Has any Committee been appointed?

Dr. ROBERT JONES.—It was left to the President to nominate the Committee.

The PRESIDENT.—The next matter on the agenda is the report of the Housing Committee and of the JOURNAL Advertisements Committee. These Committees are appointed by the Council, and unless they involve an expenditure of £10 there is no reason for them to come up before the annual meeting.

THE JOURNAL ADVERTISEMENTS COMMITTEE.

The Committee has considered and inquired into the possibility of extending the advertisements, but are unable to make any recommendations.

THE HOUSING COMMITTEE.

This Committee has met and considered this question, and has obtained a promise from the officials of the Medical Society of London of an opportunity of improved accommodation in the event of the union of the medical societies not being carried out.

COMMITTEE APPOINTED TO CONSIDER THE "PRICE OF THE JOURNAL."

This Committee decided to recommend the adoption of Messrs. Churchill's recommendation that the *Journal of Mental Science* should be published at 5s. net, and that this price should be made retrospective for back numbers. Messrs. Churchill under this arrangement would in future account for copies at 4s. 2d. instead of 3s. 10d. as at present, and all back numbers (including those at 3s. 6d.) would be sold at the same price. That Messrs. Churchill's publishing fee be raised from £24 to £27. That this change be made from the 1st January, 1906.

MOTIONS INVOLVING EXPENDITURE OF FUNDS.

The PRESIDENT.—There is no motion.

DATES OF ANNUAL, QUARTERLY, AND DIVISIONAL MEETINGS, AND QUARTERLY MEETINGS OF THE COUNCIL.

Dr. NEWINGTON proposed, and Dr. MACDONALD seconded, that they be those on the agenda. Carried.

Quarterly Meetings.—Thursday, November 16th, 1905 Friday, February 23rd, 1906; Thursday, May 31st, 1906.

South-Eastern Division.—October 18th, 1905, and April 25th, 1906.

South-Western Division.—October 27th, 1905, and April 27th, 1906.

Northern and Midland Division.—October 12th, 1905, and April 19th, 1906.

Scotland.—November 24th, 1905, and March 23rd, 1906.

Ireland.—November 23rd, 1905; April 24th, 1906; and July 5th, 1906.

ELECTION OF NEW MEMBERS.

The following candidates were unanimously elected ordinary members:—Carre, Henry, L.R.C.P., L.M., Senior Assistant Medical Officer, Woodilee Asylum, Lenzie, Glasgow (proposed by Hamilton C. Marr, William A. Parker, and Landel R.

Oswald); Drew, Charles Milligan, M.A., M.B., Ch.B.Glasg., Senior Medical Officer, Stirling District Asylum, Larbert, N.B. (proposed by Hamilton C. Marr, George M. Robertson, and William A. Parker); Dunlop, James Craufurd, M.D.Edin., L.R.C.P. Edin., M.R.C.S.Eng., Superintendent of Statistical Department, H.M. General Registry of Births, Marriages, and Deaths, Scotland, 33, Chester Street, Edinburgh (proposed by John Macpherson, Thomas S. Clouston, and John Fraser); MacIlraith, W. MacIaren, L.R.C.P.E., L.F.P.S.Glasg., House Surgeon, North Riding Infirmary, Middlesborough (proposed by Hamilton C. Marr, William A. Parker, and Landel R. Oswald); Marshall, Robert Macnab, M.B., Ch.B., Assistant Medical Officer, Woodilee Asylum, Lenzie, near Glasgow (proposed by Hamilton C. Marr, William A. Parker, and Landel R. Oswald); Strathern, John, M.B., Ch.B., Assistant Medical Officer, Woodilee Asylum, Lenzie, near Glasgow (proposed by Hamilton C. Marr, William A. Parker, and Landel R. Oswald); White, Robert George, M.A., M.B., B.Sc., Ch.B., Pathologist and Assistant Medical Officer, Woodilee Asylum, Lenzie, near Glasgow (proposed by Hamilton C. Marr, William A. Parker, and Landel R. Oswald) (the above through the Secretary of the Scottish Division); McDougall, Alan, M.D.Vict., M.R.C.S., L.R.C.P.Lond., The David Lewis Colony, Sandle Bridge, near Alderley Edge, Cheshire (proposed by John Milsom Rhodes, George W. Mould, and Robert Jones).

VOTE OF THANKS TO THE OFFICERS.

The PRESIDENT.—Before leaving the chair, and relinquishing the office which I have held during the past year, I wish to move a formal vote of thanks to those officers of the Association who have been associated with me, and to whom every President must owe a great deal. The smooth working of the Association depends enormously on the loyalty and the capacity of the officers, and there is no doubt that our Association is extremely well served by the officers who hold office for a good many years. And first of all one must refer to the General Secretary, Dr. Robert Jones—(applause)—who has now been for nearly eight years our Secretary. It is within the knowledge of all of us that to-day he has been nominated as President-Elect—(applause)—and I think perhaps the President and three or four of the other officers are the people who are best able to judge of the enormous amount of work which falls to the General Secretary. He has an enormous amount of correspondence; he has the preparation of all the minutes, and in every way a large amount of work falls on to his shoulders, and one wonders how he can do it all together with his general work. We must congratulate him very much that he is about to relinquish that work and pass into calmer waters. Then with regard to the Divisional Secretaries, they all, as the Association well knows, do a large amount of work; and in the course of the last year several changes have been made. Dr. Boycott has relinquished the South-Eastern Division, and Dr. Steen has succeeded him. Dr. Macdonald has relinquished the South-Western Division, of which I think he has been Honorary Secretary since it was originally founded, and it has been filled by a former colleague of mine, Dr. Aveline. The other Divisional Secretaries continue. In every case one has had the greatest possible assistance from them in any work connected with the Divisions. The Secretary to the Educational Committee, Dr. Mercier, as we know, has done a great deal of work for the Association—(applause)—and he again has now retired from that post to become the Chairman of the Educational Committee, and has been succeeded by a former colleague of mine, Dr. Craig. With regard to the Editors we know that the conduct of the JOURNAL is due to them, and its position in the world of medicine is extremely well known. This is due entirely to their work. Then again with regard to their Registrar, the President knows best what sort of work the Registrar does. His work does not, as a rule, appear on the surface. He does a great deal of very confidential work for the Association which could not be talked about, in particular with regard to the painful question of copying of papers. The Registrar is the person who knows all the secrets, and he keeps them so well that not even the President knows who are the delinquents. The Registrar not only has the work connected with nursing in England, but also questions connected with the colonies sometimes arise in a very acute form. It does honour to those who live in the colonies that they are anxious to be still connected with this Association. And there are difficulties with regard to the exami-

nation out there, but one feels that in the hands of the present Registrar the work is done in an exceedingly able manner, and as well as it can be done. Lastly, there is the Treasurer, Dr. Hayes Newington. (Applause.) We all know what a tower of strength he is to the Association, how in every way his opinion comes up on almost any question that arises. And we know what a splendid opinion he is always able to give; and one may say that, whether as a business man, as a physician, or as a friend—(applause)—he is a man who is invaluable, and I should like to ask Dr. Hayes Newington to reply for the officers to this vote of thanks which I now propose.

Dr. HAYES NEWINGTON.—I am sure it falls more into the province of the Secretary to respond. One can but express one's thanks for the appreciation which you (Mr. President) and the Association have shown for the work of the officers. I do not think it would be anything but false modesty to say that the work is light. For several of the officers it is very considerable, and it is work which goes on all through the year. That is especially the case with the General Secretary, whose work far exceeds that of anybody else. I can only thank you, sir, and the Association for the nice things which have been said about the officers.

The PRESIDENT.—The last business I have to do is to introduce my successor to the chair. (Applause.) It does not seem to me necessary that I should say very much about Dr. Utterson Wood. He needs no approbation from me; you know him as well as, or better than, I do. We feel that he undertook the duties of President at a time when the Association was in difficulty, and that our very best thanks are due to him for so doing. And one feels confident that in his hands the business of the Association will be carried on in the best possible way. Dr. Utterson Wood, I will now remove the Presidential badge, and invest you with it.

Dr. T. Utterson Wood then occupied the Presidential Chair amid hearty applause.

VOTE OF THANKS TO THE PRESIDENT.

Dr. T. CLAYE SHAW.—It is my very great pleasure, and my great privilege to be asked to propose a vote of thanks to our late President, Dr. Percy Smith. I do not think I err in saying that in all the qualities of a President and the way in which he has performed those duties which appertain to the office, Dr. Percy Smith has not been beaten by any of his predecessors. (Applause.) The duties of Chairman of this Association, gentlemen, are very difficult. In the first place, he has a very critical body of men to deal with. Next, he must be a well-known man as to his qualifications; he must have been a recognised man in the working of the Association, and he must possess that quality of tact which, in managing bodies of men, especially a body of this kind, is one of the essential attributes of the Chairman. In all these qualities Dr. Percy Smith is eminently distinguished. (Applause.) I know partly, and I am told on good authority—and I can well believe it,—that he has worked like a Trojan; he has conducted the meetings of this Association during a somewhat critical period, and during the elaboration, partly, of these statistical tables. (Hear, hear.) And I know that in another important matter, which concerns the merging of this Society with others into a general Royal Medical Society in London, Dr. Percy Smith's observations have had very great weight. Therefore, gentlemen, for the tact which Dr. Percy Smith has displayed, for the kindness with which he has settled little questions of arbitrament which may have arisen, and for the general elaborate and intellectual manner in which he has conducted the functions of the Chair, I am sure that our best thanks are due, and we tender them to him with grateful appreciation. (Applause.)

Dr. WEATHERLY.—It falls to me to have the equal privilege and honour of seconding this vote of thanks to Dr. Percy Smith. I have, as an old member of the Association, known Dr. Percy Smith for many years, and we all recognise that no better President has occupied the Chair. He has had a very difficult year of office, and he has presided over us with that ability and tact which we all knew he possessed. We shall always look back with the greatest possible pleasure, as I believe he himself will, to his tenure of the Presidentship. (Applause.)

Carried by acclamation.

Dr. PERCY SMITH.—Dr. Claye Shaw, Dr. Weatherly, and gentlemen, I beg to thank you in the most hearty way for the words which have fallen from you, and

for the reception of this vote of thanks by the meeting. I feel, as Dr. Weatherly has remarked, that the President is here to-day and gone to-morrow; his is an ephemeral existence, but the work goes on for ever. And the work is done mainly by the permanent officers. At the same time there must be somebody in the Chair, and it has been a great pleasure to me to preside over the meetings this year. And if there have been difficulties in the subjects which we have had before us, I think I may say that the President has been supported throughout the year by the goodwill of those who were at the meetings, and I can look back and say there has not been an unpleasant incident in the course of these proceedings and the complementary debates. I must not occupy the time of the meeting any more, as Dr. Outterson Wood will give us his Presidential Address. I beg to thank you for your hearty thanks to me.

The President then delivered his Address (see page 643).

The PRESIDENT.—A letter has been received from Dr. A. E. Macdonald, of Manhattan Asylum:

"431, RIVERSIDE AVENUE, NEW YORK;
"July 6th, 1905.

"MY DEAR DR. JONES,—I very greatly regret that I find it impossible to attend the Association meeting this year, and see my good friends thereof once more. Will you please convey my heartiest best wishes to them individually, and my best wishes also, that, collectively, they may have a most pleasant and successful meeting.

"Very truly yours,
"A. E. MACDONALD."

Dr. URQUHART.—I hope that letter from Dr. Macdonald, who has taken so much interest in our affairs, will be entered on the minutes.

Dr. NEWINGTON.—Is it not the fact that he is President of the American Psychological Association this year? (Yes.) I think we might send him a letter of congratulation. He is an American member of this Association whom we like to honour, and I suggest that you congratulate him, Sir, in the name of the Association. (Applause.)

Dr. GEORGE M. ROBERTSON read a paper entitled "The Employment of Female Nurses for the Care of Insane Men."

Dr. ROBERTSON.—Before reading my paper I desire to say that the subject on which I am addressing you this afternoon is not one of my own selection. I was asked to read this paper by the Secretary of the Association, and, as a loyal member of the Association, and also as one who is very much interested in the subject, I have great pleasure in doing so.

This paper will appear in the next number of the JOURNAL.

SECOND DAY.

Dr. HELEN BOYLE read a paper entitled "Some points in the Early Treatment of Mental and Nervous Cases, with special reference to the Poor" (see page 676).

Dr. MILSOM RHODES read a paper entitled "The Provision of Suitable Accommodation for the Various Forms of Insanity" (see page 681).

Dr. ALAN MCDUGALL read a paper entitled "The David Lewis Colony for Epileptics, Alderley Edge." This paper will appear in a future number of the JOURNAL.

A paper by Dr. George Greene entitled "Notes upon the Incidence of Tuberculosis in Asylums, a Comparative Study," was read by Dr. ROBERT JONES, in the absence of the author. This paper will appear in a future number of the JOURNAL.

Dr. Mercier's paper on "Some Definitions" and Dr. Robert Jones' paper on "Some Remarks in regard to Urine Testing" were postponed.

At the desire of the meeting, Dr. KOCH made a few remarks on the urine of insane patients. A report of Dr. Koch's contribution will appear when Dr. Robert Jones' paper is published.

The PRESIDENT expressed the pleasure the Association felt in having Dr. Koch and Dr. Alexander present, and hoped that they had enjoyed the discussions.

Dr. HAYES NEWINGTON, on behalf of the members present, congratulated Dr. Wood on a very successful meeting under his chairmanship, and on the excellent discussions which had been held.

The PRESIDENT briefly acknowledged the compliment, and the meeting terminated.

IRISH DIVISION.

The Summer Meeting of the Division was held at the District Asylum, Carlow, by the kindness of Dr. Fitzgerald, on Thursday, July 6th.

The morning having been pleasantly spent in visiting the old castle of Carlow (reduced to its present ruined state in an attempt to adapt it for use as a private asylum) and some flourishing local industries, the members were taken round the asylum, and were then entertained at luncheon by Dr. Fitzgerald.

At the meeting subsequently Dr. Fitzgerald occupied the chair, and there were also present Drs. F. E. Rainsford, R. R. Leeper, C. Norman, T. Drapes, E. J. McKenna, and W. R. Dawson (Hon. Sec.), as well as Drs. L. Stokes, F. P. Colgan, and R. Lane Joynt, who were present as visitors. Letters regretting inability to attend were received from the President and Dr. Oakshott.

The minutes of the previous meeting having been read, confirmed, and signed, the Hon. Secretary reported shortly with reference to various matters connected therewith.

A letter from Dr. E. D. O'Neill was read thanking the members of the Division for the resolution of condolence passed at the last meeting.

It was decided to hold the next meeting of the Division at the Royal College of Physicians, Dublin.

It was unanimously decided to consider at the next divisional meeting the provision of regulations for the filling of vacancies amongst the officers of the Association occurring in the interval between two annual meetings.

COMMUNICATIONS.

Dr. J. J. FITZGERALD read a paper entitled "Note on Carlow Asylum."

Dr. DRAPES alluded to the close relation between Carlow and Enniscorthy Asylums, and pointed out that whereas originally £37,000 had been allocated to provide asylum accommodation for four counties, Wexford had spent £60,000 for one. All would like to admit only curable cases, but such a regulation would not be humane. Dr. White had deprecated punishment of the insane, and the principle was good, though possibly the pendulum had now swung too far in the opposite direction.

Dr. F. E. RAINSFORD read a paper on "The Necessity for State Interference on behalf of the Imbecile." This paper will appear in a future number of the JOURNAL.

Dr. CONOLLY NORMAN read a paper entitled "Multiple Lipomata in General Paralysis." This paper will appear in a future number of the JOURNAL.

A vote of thanks to Dr. Fitzgerald for his kind hospitality was passed unanimously, and he having replied, the meeting terminated.

RECENT MEDICO-LEGAL CASES.

REPORTED BY DR. MERCIER.

[The Editors request that members will oblige by sending full newspaper reports of all cases of interest as published by the local press at the time of the assizes.]

Rex v. Clapham.

Walter James Harry Clapham, 20, was indicted for the wilful murder of his wife, Bessie Amelia Clapham, under very peculiar circumstances, on May 15th, at the Horton Asylum, at Epsom.

It appeared that the prisoner, who was a wheelwright's assistant, was married to the woman, who was then twenty-two years of age, about four and a half years ago. Their married life had been a perfectly happy one, and they lived on extremely affectionate terms. About the time of the birth of her second child, the woman's

mind failed, and she was sent to the Camberwell Infirmary. From there she was removed on September 24th, 1904, to the Horton Asylum, at Epsom, which is the London County Council asylum for the reception of insane persons. She was extremely depressed there, and continually wrote letters to the prisoner appealing to him to come and end her dreadful suffering and torture; and in one of them she asked him to bring an "r" if possible, which, counsel suggested, meant a razor. The prisoner used to visit his wife every visiting day. On May 15th last the prisoner visited his wife, who had gone to bed because she was not well. The prisoner was sitting by her bedside, and she was crying. Soon after three o'clock the nurse left the room for a few minutes on duty, but did not go out of hearing, the door of the room being open. There was a rule that the nurses were not to go too near to visitors, so as not to interfere with their private conversation. The prisoner came out of the bedroom and said to the nurse, "Don't say anything to the other patients; she has just died." The nurse at once called another nurse, to whom the prisoner said, "Don't go near her, she has cut her throat." The nurse said, "My God, what with?" and the prisoner replied with a razor which he had given her, as he could not see her suffering, and he said that he thought he had done her a kindness. The woman was found lying on her back on the bed covered with a sheet and with her throat cut. The doctor was summoned at once, and, upon the prisoner's asking him if she was dead and being told that she was, he said "Thank God," and that he wished he had killed himself.

The principal medical officer at the asylum in his evidence said that, when the woman was admitted to the asylum, she was suffering from acute suicidal melancholia. She remained in this condition all the time. In his opinion, from the character of the wound and other circumstances, it was not a case of suicide.

When charged by the sergeant of police with the wilful murder of his wife, the prisoner said, "That is right. Yes; I am ready, Sir, if you are. I don't care where I go now as long as she has gone. I would not let a cat of mine come to this building. She begged me to bring something in to do it."

Counsel for the prisoner was proceeding to cross-examine one of the witnesses as to whether, seeing that letters were not allowed to go out of the asylum without supervision, any one at the asylum was responsible for these numerous letters from the woman to the prisoner, asking him to bring something to put an end to her life, being allowed to go out of the asylum, when the learned Judge said that they could not go into that question there. He agreed that the question as to who was to blame for allowing those letters to go out ought to be inquired into on some other occasion, but neither he nor the jury had any means of entering upon such an inquiry.

Counsel for the prisoner, in his address to the jury, contended that the evidence he would call would prove beyond all doubt that the receipt of those numerous letters from his wife gradually unhinged the prisoner's mind, though he struggled long against the request to bring something to put an end to her life, and that upon the day in question he was of unsound mind and was not responsible for his acts.

Dr. Scott, the medical officer at Brixton prison, said that, though he could not say that the prisoner was not now of sound mind, in his opinion he was not at the time in question of sound mind.

The jury found the prisoner guilty of the act charged, but that he was insane at the time he committed it; and the learned Judge ordered him to be kept in custody until His Majesty's pleasure was known. The jury said that they desired to add a recommendation that care should be taken that such letters as those written by the woman should not be allowed to go out of the asylum.

Mr. Lushington said that he was asked by the principal medical officer at the asylum to state that he knew nothing about the letters going out of the asylum, that they must have been smuggled out, and that inquiry would be made into the matter.

The learned Judge said that he was most anxious in any remarks he made not to say a word against any individual, and he was sure that the jury did not mean to cast any reflection upon any individual. The letters, however, should not have got out, and the proper authorities should make careful inquiries into the matter, and see that it did not occur again.—Guildford Assizes, July 20th (Mr. Justice Bray).—*Times*, July 22nd.

Far too much seems to have been made of the posting of the letters to the prisoner. It is quite true that the receipt of these letters does seem to have distressed the unfortunate man so terribly as to induce him to commit the crime; but rules are not to be made to deal with cases so exceptional that they cannot be foreseen. It is easy to be wise after the event, and the jury, impressed by the fact that the prisoner appears to have been prompted by the letters to commit the crime, censured the asylum authorities for allowing the letters to be posted. But, if the letters had been intercepted, it is quite as probable that circumstances might have occurred which would have induced a jury to censure the authorities for intercepting them. Suppose the woman had written to her husband imploring him to take her home, and had killed herself, leaving a statement that she did so because her husband refused her request and did not answer her appeals. In such case the jury would undoubtedly have censured the asylum authorities for refusing to forward the letters. In my opinion, it requires a very cogent reason indeed to justify the suppression of letters written by patients detained in institutions. Of course, libellous letters, obscene letters, letters addressed to foreign potentates, and other persons with whom the patient has no business to correspond, and by which he would be merely advertising to strangers his insanity, are rightly suppressed; but I see no justification for suppressing a letter from a wife to her husband, who is greatly attached to her, and who surely has a right to know from her letters in what state of mind she is. The husband might, as so often happens, have disbelieved in the seriousness of his wife's malady, and have determined to take her home, thereby precipitating her suicide; and these letters might, in such a case, have been the only means of opening his eyes to the true state of the case, and preventing him from taking a fatal step. As well might a jury, inquiring into a case of suicide by jumping out of a window, censure the builder for putting windows to a house. It is impossible to legislate for those exceptional cases, in which people act against all likelihood, and all possibility of prediction, and, if the attempt is made, it will result in restrictions that do more harm in 999 cases out of 1000 than good in the thousandth.

Rex v. Bennett.

Louisa Bennett, 31, laundress, was indicted for the manslaughter of her infant child, at Birkenhead, on May 11th.

The case for the prosecution was that the prisoner, who was the wife of a respectable working man, having already had nine children, was confined on the 1st of May last of a boy, a full-time, well-developed child, who was perfectly healthy. At the end of the first week after the birth of the child the prisoner was in bed, and kept sober; but after that she began to drink heavily; and on Thursday, May 11th, she appears to have begun drinking at six in the morning, and continued to do so during the day. In the afternoon her eldest daughter suggested to her mother that she should go upstairs and go to bed, and let her take care of the baby. The prisoner said that she would go up, but insisted on taking the baby with her. About five o'clock the daughter went upstairs and found her mother asleep with her arm pressing on the child's face, who was dead, having been suffocated by that cause. Several witnesses were called to prove the drunken state the prisoner was in on the day of the child's death and the previous days. The medical evidence showed that the child was a thoroughly healthy child, and that the cause of death was suffocation by the mother lying on the child in her drunken sleep.

The jury found the prisoner guilty; and a long list of convictions, some thirty in number, including three of neglecting her children, upon proceedings taken by the National Society for Prevention of Cruelty to Children, were proved against her. She was sentenced to one year and nine months' imprisonment with hard labour.—Chester Assizes, July 19th (Mr. Justice Phillimore).—*Times*, July 22nd.

In his *History of the Criminal Law*, Mr. Justice Stephen says, "For legal purposes it is enough to say that no involuntary action, whatever effects it may produce, amounts to a crime by the law of England. I don't know that it has ever been suggested that a person who, in his sleep, set fire to a house or caused the death of another would be guilty of arson or murder." In my forthcoming work on *Criminal Responsibility*, now in course of printing by the Clarendon Press, I express surprise that Mr. Justice Stephen did not adduce the case of overlying, which causes the deaths of so many children every year. Until this case occurred I have never heard that a woman has been prosecuted in this country for thus causing the death of a child; but I am told that in Germany it is a criminal offence. The case recounted above was not a simple case of overlying, but was complicated by the drunkenness of the mother. There is nothing in the account to show whether the offence was regarded as criminal negligence, or on what ground the verdict was obtained. It is quite clear, from the dictum of Sir James FitzJames Stephen, that the conviction is a very unusual one, and deserves to be placed on record. It seems to establish the principle that intention is not necessary to criminality, unless, indeed, we suppose that the jury found the woman guilty, nominally of manslaughter, but really of drunkenness. See also the following case.

Rex v. Hancocks.

William Alfred Hancocks, 36, described as a labourer, was charged with the wilful murder of Mary Elizabeth Hancocks, at Birkenhead, on March 23rd.

Mr. B. Francis-Williams, K.C., and Mr. Colt-Williams, instructed by the Director of Public Prosecutions, appeared for the prosecution; Mr. R. M. Montgomery, at the request of the learned Judge, defended the prisoner.

The prisoner was the father of the girl, who was fifteen years of age, in service in the town. The prisoner, with his wife and two other children, aged four and two, lodged at Birkenhead with a Mr. and Mrs. Storey (another room being let to a widow named Wyley), his occupation being that of an assistant sheriff's officer. On March 23rd Mary Elizabeth Hancocks came home, and during her mother's absence went up into her parents' room with the prisoner and the two small children. A scream for help was heard, and Mrs. Storey and Mrs. Wyley rushed in, followed by Mrs. Hancocks. They found the prisoner and his daughter lying across the bed, and the girl cried out, "I am choking," at the same time putting up her hand to her throat. The prisoner picked up a pocket-knife and threatened to kill his wife; but she ran out, followed by her daughter, into Mrs. Wyley's room. The prisoner tried to force his way in, but afterwards became more quiet, and his wife escaped out of the house. Mrs. Storey and Mrs. Wyley went downstairs; but before they went the prisoner told his daughter to go into their room and look after the children. She refused at first, but at last went, and the prisoner followed her. Later on Mrs. Storey and Mrs. Wyley heard a piercing cry from the girl, and, going up, met the prisoner rushing down the stairs, and found the girl in the act of falling between the landing and Mrs. Wyley's room, bleeding profusely from wounds in her head, arms, and hands. She was removed to the borough hospital unconscious, where she died four days afterwards, having been operated upon. The prisoner escaped and afterwards jumped into the river, from which he was rescued. There was some evidence that he had been drinking, but he appeared quite sensible

of what he was doing. The *post-mortem* examination showed that the cause of death was the result of a blow with such a pocket-knife as was found in the prisoner's room.

For the defence it was urged that these wounds might have been caused accidentally in a struggle.

No evidence was given on behalf of the prisoner; but it was submitted that there was sufficient evidence that the prisoner was in a half drunken and mad state, and that there was no evidence of intent.

The learned Judge having summed up, the jury found the prisoner guilty of murder, but recommended him to mercy on the ground of his being in a partially drunken condition when he struck the blow which caused his daughter's death.

The learned Judge said he would forward the recommendation of mercy by the jury to the proper quarter, and passed sentence of death in the usual form.—Chester Assizes, July 20th (Mr. Justice Channell).—*Times*, July 22nd.

That "drunkenness is no excuse for crime" is a well-established rule of law, but in practice it is not unusual to found an excuse on drunkenness, as was done in this case. Intention, it is said, is a condition necessary to criminality; and, if a man is so bemuddled with drink that he is unable to form an intention, then any unintentional act that he may do in that condition is not criminal. This plea has been admitted in cases that have been reported in these pages; but it will be noted that it was not admitted—it does not appear, from the report, that it was set up—in the preceding case, in which intention was certainly absent. In the case of Hancocks the jury admitted the plea to some extent: not sufficiently to acquit the prisoner; not sufficiently to reduce his crime to manslaughter; but sufficiently to found upon it a recommendation to mercy.

Rex v. Blood.

William Blood, 24, grocer's assistant, was charged with stealing thirteen live fowls on May 14th and June 18th. He had been charged before with the same offence. The stealing was admitted, but for the defence it was denied that it was done with felonious intent, the defence being that the accused was a kleptomaniac in so far as chickens were concerned. The defendant's employer was called, and gave the accused an excellent character. Accused had been in witness's employment for two years, and witness had found him strictly honest in every way. Accused was at times, perhaps, a bit erratic, and was of rather a nervous temperament, but witness has never had a better man. Accused had had many opportunities of robbing witness both of money and goods if he had been so disposed; but witness had never the slightest reason to suppose prisoner had done so. By being erratic witness meant that accused was inclined to exceed his position. Inspector Plant arrested the defendant, who replied "I am truly sorry for what I have done, but something seemed to come over me; I could not help it. I took them as I went by the sewage farm, and put them in the stable with my mother's chickens." Dr. G. B. Norman, of Oakham, had known the defendant and his family for some years past, and from his experience of the defendant thought that his account, that "something seemed to come over me, and I could not help it," was not an impossible theory. He saw the accused eight years ago when in trouble on a similar charge, and he saw him after the present charge had been made, and from the way he expressed to witness what had happened, it conveyed to witness's mind that defendant could not help himself, and that there was a sudden impulse to steal, which was practically irresistible and bordered on mania.

Defendant told him that the night before he could not sleep for thinking about the chickens. The year defendant was born his father very nearly died from a severe brain attack, and the defendant himself, when a child, had several fits, and this would all predispose to defective moral power.

By Mr. Phillips: He should not say that defendant, leaving Rugby by train at three o'clock in the morning, getting out at Seaton, and bicycling to Uppingham, two

miles out of his way, instead of going the direct road through Ridlington to Stoke Dry, was a sudden impulse, and it was impossible to say how long an impulse of the kind he had described would last.

By the Chairman: He had not come there for the purpose of trying to get the accused off; he would very much sooner have been at the other end of the county. He could only give them his opinion that the accused was practically insane when he committed the offences.

The Chairman: Why?

Dr. Norman: Because I can see no reason for his doing what he did at all.

The Chairman: Why should this young man come from Rugby, take a round as he did in the early morning, and steal these chickens, and take them home?

Witness: What he told me was quite reconcilable with that. He said he could not sleep for thinking of the fowls, and he got up with the intention of fetching them.

By Mr. Simpson: He did not think there was any felonious intent on defendant's part; he thought he was irresponsible for his actions.

By Mr. Phillips: He should not say kleptomania was confined to stealing a particular object.

Mr. Phillips: He might steal spoons as well as fowls?

Witness: He might do.

By Mr. Simpson: A great many people were mad on one subject, and perfectly sound on all others.

Dr. Pink, of Lyddington, said he examined the accused about a week ago, and also that day. On the first occasion he had a conversation with him, lasting for about twenty minutes, and the result of that was he was morally certain he was of weak mind. His nervous system, as a whole, was decidedly weak, and it was in subjects of that kind they got the irresistible impulse to commit any particular offence or act.

By Mr. Phillips: He had not attended accused before a week ago.

Mr. Phillips addressed the jury, and the Chairman, having summed up, the jury deliberated some time over their verdict.

The Foreman then announced that they found the accused guilty, and then stated "but with no felonious intent."

Mr. Simpson said he claimed that as a verdict in favour of the defendant, but the Clerk said the jury must return either a verdict of "Guilty" or "Not guilty."

The jury then retired, and, after an absence of about three-quarters of an hour, returned with a verdict of "Not guilty," and accused was discharged.—*Rutland Quarter Sessions, June 29th.*—*Grantham Journal, July 1st.*

The jury took a very merciful view of the case. The defence was based entirely upon the prisoner's own statements that he had an irresistible impulse to steal the fowls; and it certainly appears as if he did suffer from an obsession towards fowl stealing. Whether this was in fact irresistible, or merely unresisted, no one but the prisoner could know; but it was certainly not an impulse. Mr. Phillips hit this nail on the head when he asked if going two miles out of the way to get at the fowls was consistent with a sudden impulse. In any true meaning of the word, suddenness is of the essence of an impulse, and it weakens a defence of this kind to speak of an obsession, which may be prolonged and enduring, as if it were a sudden and transient affection of the mind. On the whole, it appears as if the prisoner's account was true. The fact that on at least three occasions he had stolen fowls, while, with every opportunity to do so, he had never stolen anything else, is consistent with obsession; and the medical men who examined him, and who do not appear to have been obsessed, as some medical practitioners are, by the notion that every offender must of necessity be insane, but who gave their evidence with moderation and self-restraint, were convinced that his account was true. Dr. Norman had known

the prisoner for years, and both practitioners had opportunities of examining the defendant personally and testing, to some extent, the veracity of his account, and they both believed him. It marks a very great and striking change in the intelligence of juries, and in their attitude towards accused persons, that their verdict was for the defendant. A few years ago such a verdict would have been impossible. Defences much more plausible than this, on the ground of mental aberration, have been laughed out of court in recent times; and the men of Rutland are to be congratulated on the production of a jury which, whether their verdict was right or wrong, were capable of appreciating and entertaining a defence of very unusual character. It is noteworthy that the prisoner was not found "guilty but insane," but "not guilty;" and, although the former verdict would have been the more logically correct, the latter was, of the two, the more practically just. Broadmoor is not the place for an offender of this description. If the accused is in fact subject to the obsession of stealing fowls, and is in other respects honest, he has only to confine his activities to a large town, in which fowls are not kept, to keep himself out of the danger of appearing again before the Court.

In the matter of F. M. C.

In this case, the report of which is very imperfect, a lady who had been detained under care on the authority of a magistrate's order, and for the administration of whose affairs a "receiver" had been appointed by the Master in Lunacy, apparently under Section 116 of the Lunacy Act, 1890, appealed to the Court of Appeal to disallow the expenses of the "receiver." The usual petition for a reception order had been presented to a magistrate, who visited the lady, but found that, for some reason not stated in the report, he was not qualified to make a reception order. A second magistrate, however, made an order without seeing the patient, a course he was quite entitled to take under the provisions of the Act. The lady had divorced her husband, and the petition was signed by a friend of hers, and it seems that this friend was the gentleman who was afterwards appointed receiver, and who had been staying in the lady's house, at her invitation, for some weeks previously. He acted on the advice of the lady's family solicitor. However obtained, the reception order was made, and then the petitioner made arrangements to stop the express train, as it passed near the house in which the patient was living, in order that she might be taken by it to her destination. This arrangement failed, as the lady could not be made ready in time, and, upon its failure, a special train was engaged, and she was taken in that to the institution. Subsequently the "receiver" was appointed, to administer her estate; and, on the order of the Master in Lunacy, a petition for an inquisition was presented by the "receiver." The inquisition was never tried, however, for the medical men who examined the lady were unable to satisfy themselves that she was certifiably insane, or a person who ought to be detained. About five weeks after her admission the Commissioners in Lunacy made an order for her discharge, and she was discharged and readmitted as a voluntary boarder. It was contended by counsel that, upon her discharge, the office and powers of the "receiver" lapsed, and that the Master had no power to continue them, as it appeared he had done. On the other hand it was contended that the receiver should not be deprived of his costs for acts done under the orders of the Court, even if it was held by a higher Court that those orders should not have been given.

In the result, the Court ruled that the interim receivership should be discharged, and that the receiver should pay the costs relating to the transfer of a mortgage and certain payments of household expenses, there having been no serious attempt to justify the unnecessary haste with which the lady had been hurried away by special train to an asylum.—Court of Appeal (Vaughan Williams, L.J., Romer, L.J., and Sterling, L.J., August 10th).—*Daily News*, August 11th.

It is to be regretted that no report of this case appeared in the *Times*, whose reports always set forth the essential legal factors in trials. The report in the *Daily News* is of a sensational character, and, though it extends to a column and a half, and is full of unnecessary detail, it slurs over the real points at issue and leaves the reader in doubt as to what was decided. If the report can be relied on, it appears that the contention of counsel for the appellant, that a receivership lapses and determines forthwith upon the discharge of the patient, was not sustained; for the Court is said to have made an order that the receivership should be discharged, which implies that it was then in existence. The decision of the Court, directing the receiver to pay his own costs to some extent, will not render it easier in the future to induce persons to take this unthankful task upon them. The chief interest to medical men of the judgment, is however, the ground upon which the receiver was saddled with costs. It was not on account of anything he had done or omitted to do in his capacity of receiver, but because, in his capacity of petitioner, he had shown unnecessary haste in hurrying the lady to an asylum. This must be good law, or it would certainly not have been sanctioned by three such excellent judges, but it seems extraordinary justice. The receiver is punished for the fault of the petitioner. The receiver happens to be the same person as the petitioner, it is true; but this is by no means a necessary arrangement. It happens very frequently that the receiver and the petitioner are different persons. But if it is legal to punish the receiver, by depriving him of his receiver's costs, for an act done, not in his capacity as receiver, but in an entirely different capacity, then two things are possible. Then it seems, Jones (receiver) may be deprived of his costs because Smith (petitioner) has been too hasty in removing Robinson to an asylum; and, beyond this, Jones may be deprived of his costs as receiver in *re* Robinson, on the ground that he, Jones, has acted, in some other capacity, in a manner not illegal, but displeasing to the Court. He has spoken against the *entente cordiale*; he is a pro-Boer; he is Secretary to the League for Depriving Judges of their Wigs; he has spoken disrespectfully of the Equator; and, as his acts in these capacities are disapproved by the Court, they may deprive him of his costs in *re* Robinson (so it seems) although, in his capacity as receiver, he has done nothing to which any exception can be taken.

Whether this be so or no, the Court has again marked its disapproval of anything in the least degree approaching unseemliness or undue haste in procuring the admission of a patient into an institution. There was no suggestion that the petitioner had acted in bad faith or without reasonable care. He acted on the advice of the family solicitor; in every step he acted strictly in accordance with law; but, for the trifling indiscretion of acting with undue precipitation, he is heavily fined. The decision should make medical practitioners cautious not to sign urgency orders except in cases of real urgency; for it is obvious that the same principle will apply, and that, although they may be acting strictly within the law, they may perchance find themselves rendered in some way liable, if ever the case comes to be reviewed in a Court of Justice.

CORRESPONDENCE.

THE TRAINING OF NURSES, from Dr. T. OUTTERSON WOOD.

Seeing the consummate ease with which the Japanese method of defence enables the weak to overcome the strong it has occurred to me what a valuable addition it would be to the subjects taught our nurses, male and female, in preparing for their examination for the certificate of our Association for proficiency in nursing the insane. I quite believe the "ju jitsu" would enable our nurses to overcome the serious physical violence they are always open to in the management of dangerous refractory patients, with far less risk to themselves, and remove the danger there invariably exists of injury to the patient by the unscientific application of that physical force which is absolutely necessary to prevent injury to the patient or his surroundings.

NOTICES BY THE REGISTRAR.

The next examination for the Certificate of Proficiency in Nursing will be held on Monday, November 6th, 1905.

NOTICE BY THE LIBRARIAN.

The following works have been kindly presented by the respective authors:—*Ex Cathedrâ Essays on Insanity*, Claye Shaw; *Psychological Medicine*, Maurice Craig.

The Life of Sir Harry Vane, the Younger, at which Dr. W. W. Ireland has been working for four years will be published in October by Eveleigh Nash, London.

NOTICES OF MEETINGS.

Quarterly Meeting.—The next meeting will be held in London on November 16th, 1905.

South-Eastern Division.—The Autumn Meeting will be held, by the courtesy of Dr. Langdon Down, at Normansfield, Hampton Wick, on Wednesday, October 18th, 1905.

South-Western Division.—The Autumn Meeting will be held at University College, Bristol, on Friday, October 27th, 1905.

Northern and Midland Division.—The Autumn Meeting will be held, by the courtesy of Dr. Ewan, at Kesteven County Asylum on Thursday, October 12th, 1905.

APPOINTMENTS.

Greenwood, T. Parker, M.D., B.Sc., Assistant Medical Officer at the County Asylum, Radcliffe, Notts.

McDermid, Peter, M.B., Ch.B., Junior Physician, Lancashire County Asylum, Winwick.

Thompson, Alexander Dey, M.B., Ch.B. Glasg., Senior Assistant Medical Officer to the Monmouthshire Asylum, Abergavenny.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

REPORT OF THE STATISTICAL COMMITTEE, APPOINTED AT THE
ANNUAL MEETING HELD AT LIVERPOOL IN 1902, PRESENTED
TO THE ANNUAL MEETING OF THE ASSOCIATION,
JULY 21ST, 1904.

The reference to the Committee was :

“ That the Committee be requested to report to the next Annual Meeting upon the statistical tables of the Association as to whether, and if so in what direction, their alteration or amplification would be of advantage; that individual members of the Association be hereby invited to communicate to the Committee any views they may have on the subject; and that such Committee consist of Drs. Bond, Dawson, Easterbrook, Hayes Newington, Hyslop, Nolan, Bedford Pierce, Rayner, R. S. Stewart, Whitwell, and Yellowlees.”

The Committee have met several times in London, once in Derby, once in York, and once in Edinburgh. Almost each meeting extended to two days or more.

The Committee at its first meeting appointed Dr. Yellowlees chairman, and Dr. Bond secretary. Communications made by members, as invited by the reference, were duly considered and summarised.

It being found, for reasons then stated, to be impossible to report fully to the Annual Meeting of 1903, an *interim* report was presented, a print of which will be found in the *Journal of Mental Science*, 1903, October No., p. 770.

The work of the Committee having now been virtually com-
LI.

pleted, the following report will be submitted to the Annual Meeting on July 21st, 1904.

The members of the Association are aware that the tables in their present form have been in use since 1882, when a Committee brought up a new edition, which was approved of by the Association. A sufficient time has therefore elapsed for proving the value of the propositions then made, and it cannot be doubted that in some directions results have not justified the amount of statistical labour that has been expended.

The Committee have omitted from their scheme of tables those particulars which do not appear to have a general and practical value; but they suggest that it will be quite open to those who may feel sufficient interest in them, to treat them in optional tables and include them as such in their annual reports.

In approaching their work the Committee have steadily kept before them certain broad principles, among which are: first, simplification and ultimate saving of labour; second, the necessity for maintaining, as far as possible, a distinction between certain classes of cases; third, the elimination of information which has not proved itself to be of much value; fourth, the advantages of correlating certain facts; and fifth, the guarding against ambiguities of expression which have in the past led compilers to take varying views of what was really required.

The Committee think that simplification has been promoted by grouping together all the tables dealing with Admissions, Discharges, Deaths, and the Residue respectively, prefacing the groups with two General Tables showing the movements of the asylum population during the year under report, as well as during those which have elapsed since the opening of the institution. With regard to the saving of labour, it will be apparent to those who have compiled the statistics for even a moderately-sized asylum that the work is not at all confined to the statement of figures and working out of the calculations. A source of heavy labour, and possibly irritation, is found in the looking up in various directions of the necessary facts, and in subsequently marshalling them for treatment. The Committee have endeavoured to find some method by which facts should be stated as far as possible, and as correctly as possible, in places where they could be easily found and extracted at the set time. For dealing with the facts concerning the admissions of the year,

naturally the Register of patients admitted would appear to be the readiest source of information, but it is notorious that the information therein contained at present is frequently not the truest and best. The Lunacy Acts require speedy entry of the particulars furnished on the reception papers, which particulars are often short in amount and unreliable, since they may have to be rendered in a hurry by friends or relieving officers. In consequence a reference to the case-book is frequently required. The facts about the register were so well known that the English Lunacy Commissioners have for several years past issued an Annual Register for the purpose of obtaining more reliable information, supplied by medical officers after inquiry and mature consideration of their cases. In this latter Register the Committee found a suggestion for carrying out their leading idea on the subject. It was considered to be advantageous that the civil and medical facts about a given case, which now are mixed up in one register, should be dissociated, and therefore it has been proposed that there should be a Civil Register and a Medical Register. The latter, perhaps, can be treated with more elasticity than the former in regard to the speedy entering up of particulars on admission. It is, as proposed by the Committee, a modification and amplification of the above mentioned Annual Register, and when it has been fully and correctly filled up, it will be found to contain all those particulars regarding the admissions which are necessary for the compiling of the Admission tables. It has to be added that the Annual Register of the English Commissioners only deals with those cases which the Committee term "direct admissions." It will be necessary to keep a few pages in another part of the same register, or in large asylums a separate volume, for those cases which are transferred into an asylum. By this means all the admissions will be ready to be dealt with for compilation where general results are required, such as the total recovery ratio. Similarly it has been proposed to have separate Registers for Discharges and for Deaths, a system which now obtains in Scotland. The modifications proposed by the Committee in these registers will, in their opinion, lead to readiness and accuracy in working out the tables. A very important point is that when once the facts have been stated in the various registers, as definitely settled by the medical officers, the task of evaluating them becomes

clerical, and these officers can be relieved of much statistical work which has been hitherto left to them by the necessity of working up medical points simultaneously with calculations.

The Committee experienced genuine satisfaction in being able to state that as a result of several communications and conferences with the various Lunacy Authorities, a general acceptance of the idea involved in the alterations of the registers has been manifested. Further than that, a general approval of most of the details has been expressed, but, of course, as important legal considerations are involved, a final agreement at present cannot be looked for. It is hoped that, should this agreement be reached, it will be possible to collate and compare the lunacy statistics from all parts of the kingdom.

With regard to the distinction between certain classes of cases, the Committee think that they will receive general support in their proposal to deal with cases, admitted direct into asylums on fresh orders, on quite a different footing from those which have been transferred from another institution or from single care. It is apparent that proper inquiries into the antecedents of the latter cases is generally impossible. Therefore, for the sake of accuracy as to the majority, it is considered right to entirely ignore these transfer cases (amounting to about 11 *per cent.* of all admissions) in those tables which aim at elucidating scientific facts. Then, since the present tables were instituted the new Lunacy Act in England has produced another class of admissions, those resulting from lapse of the original order; and in all divisions of the kingdom there have been, and always will be, instances where failure to comply with legal requirement leads to discharge and readmission. These two classes, unless carefully separated, must destroy accuracy, and therefore the Committee have proposed to strain them off from the total admissions, and to deal for scientific purposes only with "direct admissions," viz., those cases which come into the asylum from the outside world with fresh orders and certificates.

The Committee have given some scope to a feeling expressed in several quarters that distinction can be profitably made between "first" and "not first" attacks, especially with regard to antecedent duration of illness and length of treatment. They have also, where it appeared advisable, separated off the congenital cases.

The elimination of any portions of the scheme instituted by the Committee of 1882 has been a matter of much consideration and hesitancy to the present Committee, who feel that the procedure may appear to be somewhat ungracious. But there can be little question that the endeavours made to discriminate between "persons" and "cases" have not been attended with the success that was expected, and, from experience, they apparently do not advance scientific knowledge to any appreciable extent. On the other hand, the tables which were designed to carry out this discrimination (Tables II and IIA) are well known to cause an immense amount of labour, which the Committee think can be better applied to other calculations. The present Table IV also has not been considered by the Committee to justify the work involved; but, as has been already said, there is no reason why those who value it should not continue to reproduce it.

Correlated information.—The value of this in all statistical inquiries cannot be overestimated. The Committee's predecessors made use of this method of tabulation in Table V, and partly in Table VII; but in the tables now recommended justification has been felt for utilising it much more freely. Thus Admission group Tables II, III, VI, VII, and VIII, Discharge group Tables II and III, Death group Tables I and II, and Residue group Table I are all examples of its adoption. Of necessity, the preparation of such tables implies an increased expenditure of time, but it is probably not going too far to say that, however great pains are bestowed upon accuracy of data, their separate tabulation is in very many instances of small value, indeed, is often misleading, and that it is only when these data are associated and correlated, or, as one may phrase it, "expressed in terms of each other," that their true bearing, on the ætiology and nature of the disorder under investigation, becomes clear and free from fallacy of inference.

Subjoined are some annotations and explanatory remarks with reference to certain of the series of tables now suggested.

ADMISSION GROUP TABLES.

A. G. Table II virtually covers the ground of old Table VII as far as admissions are concerned, but expresses the facts in greater detail. It is the only table of the Admission group series in which transfers have been included; their careful

distinction from the direct admissions has, however, been maintained. Their inclusion here was owing to the bearing they have on the recovery rate, and to the fact that the recoveries tabulated in the discharge group tables represent cases from both classes of admissions.

A. G. Table IV.—Though much attention has been bestowed upon this table, its far removal from perfection is fully realised. Some will perhaps feel disappointed that more of the terms used in modern classifications have not been adopted. The Committee did not feel either that the time for this was ripe, or that the suggesting of a new classification really formed part of the task imposed upon them. They have, however, ventured to include certain forms of insanity not in the old tables mainly because so many cases occurred for whom without them there seemed no suitable niche. They have abandoned the ætiological varieties of mania and melancholia; the total number of these cases can be ascertained in a moment from Admission group Table VI, and their separation into mania and melancholia is not always sound.

A. G. Table V.—The groupings adopted by the Registrar-General for census purposes have been followed here.

A. G. Table VI has occupied very much of the Committee's time. The very nature of the table—ætiology—makes it one of prime importance. In almost every case of mental disease its causation is a complex in which the entering factors play a disproportionate part. It was felt that it would be a great gain in summing up the ætiology of any given case, to be able to state what, in the medical officer's opinion, was the most important causative agent, and to give it its due prominence in a tabular form. Hence the first column in the table, into which one and one only cause may be entered for each case. Certain cases present themselves in which it would be extremely difficult to assign a principal cause, and for these provision has been allowed. An increase in the number of scheduled causal factors has been made and spaces left for still further additions under appropriate headings. And lastly, but probably of chief importance, a method of cross reference has been framed whereby the extent to which other factors were found in association with any given factor can be seen at a glance. The potentialities of this are too apparent to need enlargement upon. On the right hand side of the table are

columns enabling the association of certain conditions to be recorded in a valuable manner.

A. G. Table VIII has been suggested in order to follow in various localities the inferences of the valuable similar table published by the English Lunacy Commissioners in reference to general paralytics.

DISCHARGE GROUP TABLES.

DI. G. Table I is on parallel lines to the analysis of the admissions in the first Table of the previous group.

DI. G. Table II.—It is believed that by this table the importance of early treatment will be brought out in strong relief. The information at present given in old Table VI as regards recoveries can be obtained here, except that “duration of residence” has not been limited to the particular asylum.

DEATH GROUP TABLES.

Many adverse criticisms have been levelled at the present mode of death tabulation. As a matter of fact they apply to practically all death tables, owing to the fact that, just as in the case of the ætiology of insanity, so also is the cause of death almost invariably a complex. It seldom happens that there are less than two important factors entering into the cause of death, and, while deprecating any attempt at a pathological index of all morbid conditions found at death, the Committee feel that an immense step forward would be attained if it could be found practicable to record in tabular form two or three causes (when present) of death. This is especially important in dealing with preventable diseases, because if two causes contributed to the death, as not infrequently happens, while only one cause can be tabulated, it of necessity follows that the totals can never accurately represent the incidence of any disease as a cause of death.

DE. G. Table I.—The Committee have set themselves earnestly to the task of meeting these difficulties, and offer this table as a solution. It is intended that the diseases tabulated shall be enumerated in the order and groups agreed upon by the Registrars-General for the three divisions of the kingdom, which is based on the nomenclature of the Royal College of

Physicians. As in the ætiological table, a column is provided for the instances when any disease acted as a principal cause of death; but the Law does not recognise the possibility of uncertainty as to which is the principal cause, therefore it is impossible to allow latitude here in that respect. In the second column any other diseases entering into the cause of death will find their places. Sub-columns to each of these indicate verification by *post-mortem* examination. It will be noticed that the terms "principal" and "contributory" appear here in a manner analogous to their use in A. G. Table VI, and replace the terms "primary" and "secondary" customarily used in death returns.

Further, it was felt that certain diseases had a specific relationship either to insanity—in one or other of its varieties—or at least to inmates of asylums, and that when these caused death or contributed thereto, a means of tabulating their association with other causes of death would be of very great value. Accordingly, and again in a manner parallel with the ætiology table, columns have been added to express this. Twelve diseases have been selected whose association with other diseases it is desirable that all asylums should show, but there are vacant columns for other diseases according to the demands of the locality.

DE. G. Table II is virtually the same as old Table V. It is of course recognised that all statistical inquiries into causes of death are worthless, for purposes of comparison, without a statement of the age at death in relation to each cause of death. This is best made in quinquennial periods as is the case at present in old Table V.

DE. G. Table III replaces that portion of old Table VI which expresses the length of residence of those dying during the year. Again, it has been the question of transfers that was the determining factor in the scope of this table. It is of merely local value, and that probably not great, to know that a patient dying had been resident in that asylum, say, three years, when possibly he had been transferred there from another asylum where he had been perhaps fifteen years. Hence it was decided that the "total duration of the present attack of mental disorder" should be the subject-matter asked for. In discussing the causes of a high or low death-rate the table will be of much value.

RESIDUE GROUP TABLES.

R. G. Table I.—A statement of the ages of all asylum inmates resident at the end of the year is required by some authorities; information which, standing alone, is of little value, but, correlated with the duration of the attack of mental disorder in regard to which they are under certificates, does shed a very valuable light on the character of the asylum's population. With reference to the cases falling within the first four named durations, the facts of this table, taken in conjunction with A. G. Table II for the ensuing year, are of the utmost value in examining an apparently high or low recovery rate. The Committee accordingly resolved to recommend this table, which is a correlation between the age of the patient and the duration of his present attack of mental disorder.

Other tables have suggested themselves to your Committee, partly in the course of their deliberations, and partly by the replies received from their original circular of inquiry. The policy followed, however, had in view the limitation of the number of tables strictly to those which might be expected, when summarised, to yield results of imperial value, in contradistinction to those whose utility is necessarily restricted and local.

Having now concluded the review of the work done, the Committee have to remark that they desire to submit to the Association a satisfactory heredity table for the preparation of which there has not been sufficient time. They feel also ~~that~~ they may be able to make further recommendations for the facilitation of statistical work, *e. g.* by the suggestion of forms for use in compiling the tables. There is also, if the Committee's suggestions are carried through, further work to be done in bringing into operation the new scheme in all its bearings. For the above reasons the Committee is of the opinion and recommend that it be re-appointed for another year.

(Sgd.) DAVID YELLOWLEES, *Chairman*.
C. HUBERT BOND, *Secretary*.

GENERAL TABLE I.—*Showing the movement of the Asylum
Population during the year 19...*

	Certified Patients.		Voluntary Boarders.	
	M. F. T.	M. F. T.	M. F. T.	M. F. T.
On the Asylum Registers, Jan. 1st, 19 .				
Total cases admitted during the year .				
Total cases under treatment in the year .				
Cases discharged or transferred as—				
Recovered				
Relieved				
Not improved				
Died				
Total cases discharged and died during the year				
On the Asylum Registers, Dec. 31st, 19				
Average daily number resident during the year				

[In the following Tables the term "Direct Admission" is used as excluding those transferred from other Asylums, Registered Hospitals, Licensed Houses, and from Certified Single-care; those irregularly admitted and those readmitted in consequence of Reception Order having expired.]

GENERAL TABLE II.—*Showing the movement of the Asylum Population (excluding Voluntary Boarders) during each year since the year....., and a Summary of the same, together with the Recovery and Death Rates.*

Year.	Total Admissions.	Total No. under treatment.	Discharged.			Died.	Re-maining on Registers Dec. 31st.	Average Daily Number Resident.	Percentage of Total Recoveries on the Total Number of Admissions.	Percentage of Total Recoveries on the Direct Admissions.	Percentage of Deaths on Average Daily Number Resident.
			Recovered.	Relieved.	Not improved.						
			M. F. T.	M. F. T.	M. F. T.						
*											
Total											

* The date and figures in respect of the year under report to be printed in bold type.

ADMISSION GROUP, TABLE I.—*Analysis of the Admissions during the year 19... (excluding Voluntary Boarders).*

Congenital.	DIRECT ADMISSIONS.				Total.	TRANSFERS from other Asylums, etc., and admissions, irregular or due to lapsed orders, etc.		GRAND TOTAL.
	Acquired.			Transfers.		Lapsed orders, etc.		
	First attack.	Not first attack.	Unknown whether first attack or not.					
M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	

ADMISSION GROUP, TABLE II.—*Showing the Duration of the present attack on Admission in the Direct Admissions during the year 19... (stating whether First Attack or not) and in the Transfers (Voluntary Boarders excluded).*

Duration of mental disorder prior to admission.	Direct Admissions.				Transfers.	Total Direct Admissions and Transfers.
	First attack.	Not first attack.	Unknown whether first attack or not.	Total.		
	M. F. T.	M. F. T.	M. F. T.	M. F. T.		
Within 2 weeks						
2 weeks and within 1 month						
1 month " 3 months						
3 months " 6 "						
6 " " 9 "						
9 " " 12 "						
12 " " 18 "						
18 " " 2 years						
2 years " 3 "						
3 " " 5 "						
<i>Longer known periods to be specified.</i>						
Duration unknown						
Congenital cases						
Totals						

[The following Tables, of the Admission Group, refer to Direct Admissions only.]

ADMISSION GROUP, TABLE III.—*Showing, in quinquennial periods, the Ages on Admission of the Direct Admissions during the year 19..., arranged according to their Civil State and distinguishing the Congenital Cases (Voluntary Boarders excluded).*

Ages.	Congenital Cases.	Single.	Married.	Widowed.	Unknown.	Total.
	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.
Under 10 years of age						
10 to 14						
15 to 19						
20 to 24						
25 to 29						
30 to 34						
35 to 39						
40 to 44						
45 to 49						
50 to 54						
55 to 59						
60 to 64						
65 to 69						
70 and over						
Total						
Average age						
Civil State of the Congenital Cases						

ADMISSION GROUP, TABLE IV.—*Showing the Form of Mental Disorder on admission in the Direct Admissions during the year 19... (Voluntary Boarders excluded).*

Forms of mental disorder.	M.	F.	T.
Congenital or infantile mental deficiency:			
(a) Without epilepsy			
(b) With epilepsy			
Epileptic insanity			
General progressive paralysis			
Mania { Recent*			
{ Chronic			
Melancholia { Recent*			
{ Chronic			
Alternating insanity			
Volitional and moral insanities			
Delusional insanity			
Stupor and states of confusion			
Dementia { Primary (including Dementia præcox)			
{ Senile			
{ Organic and paralytic.			
{ Secondary			
Total			

* The period of one year is taken as the limit of the term recent.

ADMISSION GROUP, TABLE V.—*Showing the Occupation of the Direct Admissions during the year 19... (Voluntary Boarders excluded).*

Occupations.	M.	F.	T.
Professional			
Commercial			
Agricultural			
Industrial { Working in mills, manufactories			
{ Working at handicrafts			
{ Manual labour, heavier kind			
Domestic			
Unknown and no occupation			
Total			

ders excluded).

CA) subjoined factors or groups of factors.										CO-EXISTING CONDITIONS. (Correlated with the principal factors.)															
		G. Other toxic.		Traumatic.		Diseases of nervous system.				Congenital defects.															
		5,6,7,8		H		Lesions of brain, cord, and nerves. Epilepsy and other neuroses.		Other bodily affections.		Congenital and infantile mental defect.		Previous attacks.		Cases in which no principal cause could with certainty be assigned.		General paralysis.		Mental (not amounting to complete imbecility or idiocy).		Moral.		Showing marked stigmata of degeneration.		With deprivation of sense.	
		F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
MENTAL STRESS—																									
A. SUDDEN—																									
1. Nervous a																									
2.																									
3.																									
B. PROLONGED—																									
1. Anxiety a																									
2. Disappoint																									
3. Mental ov																									
4. Solitude																									
5.																									
6.																									
PHYSICAL STRES																									
C. HEREDITY—																									
1. Insane—																									
2. " "																									
3. Neurotic— asthma																									
4. Of paraly																									
5. Alcoholic																									
6. Tubercula																									

ADMISSION GROUP, TABLE VII.—Showing in the "Not First Attack" Direct Admissions during the year 19... the number of Previous Attacks arranged according to the age on First Attack (Voluntary Boarders excluded).

	Age on first attack.											Total.			
	Under 10	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59		60-64	65-69	70 and above
Number of attack known to have been treated to recovery in an Institution or elsewhere.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F. M. F. T.
Have had 1 prior attack															
" 2 prior attacks															
" 3 or more prior attacks															
Not first attack, but number of prior attacks unknown															
Totals															

ADMISSION GROUP, TABLE VIII.—Showing among the Direct Admissions during the year 19... the number of General Paralytics arranged according to their ages on admission and their civil state.

		Ages on admission.												Total.			
		Under 10	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64		65-69	70 and above.	Unknown
		M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.
Civil state.																	
Single
Married
Widowed
Unknown
Totals

DISCHARGE GROUP, TABLE I.—*An analysis of the Discharges during the year 19... (Voluntary Boarders excluded).*

	M.	F.	T.
Discharged as recovered :			
First attack cases
Not first attack
Unknown whether first attack or not
Total
Discharged as not recovered—Total
<i>and of these there were—Sent to care of friends, M., F., T.</i>			
" " <i>Relieved</i>			
" " <i>Not improved</i>			
Transferred to other institutions
Total discharged and transferred
Classification at time of discharge :			
Rate-paid
Private
Criminal (not included under private)

DISCHARGE GROUP, TABLE II.—*Showing in the RECOVERIES during the year 19... the Duration of the present attack previous to admission, either direct to this Institution or to any other Institution under the existing Reception Order, and also the Duration of Residence (including absence "on leave") in this and any other Institution from which the patient may have been transferred, arranged according to whether the attack is the First, "Not First," or "Unknown whether First or not" (Voluntary Boarders excluded).*

Duration of this Attack Previous to Admission either to this Institution or to any other Institution under the existing Reception Order.	Duration of Residence (including any absence "on leave") in this, and any other Institution from which the patient may have been transferred here.														Un-known whether First Attack or not.	Grand total.		
	First Attack Cases.							Not First Attack.										
	Under 1 mth.	1 m. and under 3 m.	3 m. and under 6 m.	6 m. and under 9 m.	9 m. and under 1 yr.	1 yr. and under 2 yrs.	2 yrs. and over.	Total.	Under 1 m. and under 3 m.	3 m. and under 6 m.	6 m. and under 9 m.	9 m. and under 1 yr.	1 yr. and under 2 yrs.	2 yrs. and under 3 yrs.			3 yrs. and over.	Total.
Within 2 weeks	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F. T.	M. F. T.
2 weeks and within 1 month																		
1 month " 3 months																		
3 months " 6 "																		
6 " " 9 "																		
9 " " 12 "																		
12 " " 18 "																		
18 " " 2 years																		
2 years " 3 "																		
Longer periods specified																		
Totals																		

DISCHARGE GROUP, TABLE III.—*Showing the age in quinquennial periods at recovery of those Discharged Recovered during the year 19... , arranged according to the Total Length of the present attack of Mental Disorder (Voluntary Boarders excluded).*

Total length of this attack of mental disorder.	The age on recovery.												Total.			
	Under 10	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64		65-69	70 and over.	U. A. O. U. I.
Within 1 month																
1 month and within 3 months																
3 months " 6 "																
6 " " 9 "																
9 " " 12 "																
12 " " 18 "																
18 " " 2 years																
2 years " 3 "																
(Longer periods specified)																
Totals																

DISCHARGE GROUP, TABLE IV.—*Showing the Form of Mental Disorder on admission in those Discharged Recovered during the year 19... (Voluntary Boarders excluded).*

Forms of Mental Disorder.	M.	F.	T.
<p>The foregoing Terminology of Table IV, Admission Group, to be used here as far as possible.</p>			
<p>Total . . .</p>			

DEATH GROUP, TABLE I.—Showing all the Causes of Death that entered into the Deaths during the year 19... arranged as PRINCIPAL and CONTRIBUTORY, together with Correlations between them and certain Selected Causes. Also the number of instances in which the Cause was verified by post-mortem examination (Voluntary Boarders excluded).

Names of causes of death.	Instances when returned as PRINCIPAL.			Instances when returned as CONTRIBUTORY.			Total Incidence.			Showing the total correlation between any given Cause of Death (whether acting as Principal or Contributory) and the subjoined selected causes.																				
	M.	F.	T.	M.	F.	T.	M.	F.	T.	Influenza.	Epidemic diarrhoea and enteric enteritis.	Dysentery (Colitis).	Pneumonia.	Erysipelas.	Pulmonary tuberculosis.	Carcinoma and sarcoma.	Cerebral hemorrhage.	General paralysis.	Chronic Bright's disease.	Valvular heart disease.	Fatty degeneration of the heart.	M.	F.	M.	F.	M.	F.			
As grouped by the Registrar-General, and using the nomenclature of the Royal College of Physicians.																														
Total.																														

* One cause only, and that the principal, must be entered in this column.
 † Any cause other than the principal to be entered in this column; there may of course be no secondary cause, or there may be two or more.

DEATH GROUP, TABLE II.—*Showing the Principal Cause of Death in each Death during the year 19..., together with the ages at Death in quinquennial Periods (Voluntary Boarders excluded).*

Principal Causes of Death.	Ages at Death in Quinquennial Periods.															Total.	
	Und'r 10.	10—14.	15—19.	20—24.	25—29.	30—34.	35—39.	40—44.	45—49.	50—54.	55—59.	60—64.	65—69.	70 & over.			
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.			
As grouped by the Registrar-General, and using the Terminology of the Royal College of Physicians.																	
Totals																	

DEATH GROUP, TABLE III.—*Showing the Total Duration of the Present Attack of Mental Disorder in the Deaths during the year 19... (Voluntary Boarders excluded).*

Duration of Present Attack of Mental Disorder.	M.	F.	T.
Within 1 month			
1 month and within 3 months			
3 months			
6 " " 6 "			
9 " " 9 "			
12 " " 12 "			
2 years			
3 " " 3 "			
5 " " 5 "			
10 " " 10 "			
15 " " 15 "			
20 " " 20 "			
Longer periods specified			
Total			

RESIDUE GROUP, TABLE I.—*Showing the Ages (in quinquennial periods) of those resident on December 31st, 19... arranged according to the Total Duration of Present Attack of Mental Disorder (Voluntary Boarders excluded).*

Total Duration of Present Attack of Mental Disorder.	Ages in Quinquennial Periods of those resident December 31st, 19...														Un- known.	Total.	
	Under 10.	10—14.	15—19.	20—24.	25—29.	30—34.	35—39.	40—44.	45—49.	50—54.	55—59.	60—64.	65—69.	70 & over.			
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.			
Under 3 months																	
3 months and within 6 months																	
6 " " 12 " "																	
12 " " 2 years																	
2 years " 3 " "																	
3 " " 5 " "																	
5 " " 10 " "																	
And afterwards in decennial periods																	
Total																	

RESIDUE-GROUP, TABLE II.—*Showing the Form of Mental Disorder on December 31st, 19..., of those resident on that Date (Voluntary Boarders excluded).*

Forms of Mental Disorder.	M.	F.	T.
Congenital or infantile mental deficiency:			
(a) Without epilepsy			
(b) With epilepsy			
Epileptic insanity			
General progressive paralysis			
Mania { Recent *			
Chronic			
Melancholia { Recent *			
Chronic			
Alternating insanity			
Volitional and moral insanities			
Delusional insanity			
Stupor and states of confusion			
Dementia { Primary (including dementia præcox)			
Senile			
Organic and paralytic			
Secondary			
Total			

* The period of one year is taken as the limit of the term "recent."

CIVIL REGISTER.

Date of Previous Admission (if any).	No. in Order of Admission.	Date of Admission.	Date of Urgency Order.	Date of Reception Order.	Date of Continuation Order.	A Transfer.	A Re-admission after previous irregularity or lapsing of Order.	Christian and Surname.	Class.	Sex.	Civil State.	Previous Place of Abode.	Union or County to which chargeable.	By whose Authority Name and Address of Petitioner (if any).	Date of Medical Certificate and by whom signed.	Dis-chrgd.	Trans-ferred.	Died.	Date of Dis-charge, Transfer, or Death.	Observations.
									Rate-paid.							Recovered.				
									Private.							Relieved.				
									Criminal (not included under Private).							Not Improved.				
										Male.	Single.									
										Female.	Married.									
											Widowed.									
											Unknown.									
												Usual Place of Abode.								
												Wh'nc brought Abode.								

REGISTER OF DISCHARGES AND TRANSFERS.

Date of Discharge.	Date of last Admission.	No. in Civil Registrar.	Name.	Sex.	Class.	Discharged.				Transfers and where transferred to.		Columns to be filled in only in the case of those discharged recovered.				Observations.				
						Rate-paid.	Private.	Criminal (not included under Private).	Recovered.	Relieved.	Not improved.	Of those discharged, relieved, and not improved.	Name of asylum, etc., to which patient was removed.	Relieved.	Not improved.		Duration of present attack of mental disorder.		Attack.	
												Prior to admission on present or original order.	Since admission on such order.	Total duration.	First.	Not first.	Unknown whether first or not.			

In large institutions it would be probably convenient to have two such registers, one for each sex. Where one register serves for both sexes, it is suggested, in order to facilitate arriving at totals, that entries for females be in red ink.

REGISTER OF DEATHS.

Date of Death.	Date of last Admission.	No. in Civil Register.	Name.	Sex.		Age at Death.	Class.			Duration of Present Attack of Mental Disorder.			Causes of Death.		Verified by post-mortem Examination.	Form of Mental Disorder at Death (as returned in Statement of Death). (1)	Observations.	
				M.	F.		Rate-paid.	Private.	Criminal (not included under Private).	Before Admission under Certificates.	Since Admission.	Total Duration.	Principal. (One cause, and one only must be entered here.)	Contri- butory.				

(1) The words in italics are only provisionally inserted. They have reference to a variation in the form of Statement of Death which the Committee understand to be in contemplation.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

FURTHER REPORT OF THE STATISTICAL COMMITTEE AS
AMENDED AND ADOPTED AT THE ADJOURNED
ANNUAL MEETING, JULY 19TH, 1905.

SINCE the Adjourned Annual Meeting, held on November 17th, 1904, a report of which will be found in the *Journal of Mental Science* for January, 1905, p. 190, the Committee has met for five whole days in London, York, and Leeds. In addition much correspondence has taken place between it and other bodies and individuals. Further, several personal interviews by the Chairman and the Secretary, on the part of the Committee, have been held with various authorities and persons. The work has been very arduous and of great volume, but the Committee has the satisfaction of feeling that the utmost has been done by it towards endeavouring to adjust differences in those views and wishes that have been pressed on it. The Committee does not pretend to think that it has been entirely successful in satisfying every member on all points, in fact the full adoption of amendments suggested to it would have produced chaos. But it does feel that the Tables and Registers now presented are reasonably full and sufficient for their purpose, which is to bring out and record the main facts relating to the occurrence of insanity without undue labour and prolixity.

The Committee begs to offer the following remarks on the individual Tables and Registers :

It will be remembered that at the last meeting it was provisionally agreed that, while the Tables should retain their group arrangement as proposed in the previous report, they should be numbered consecutively. But on further study of this proposal

it was found to be likely to prove extremely inconvenient, as difficulty and confusion would probably arise in introducing any new Tables that the Association might, from time to time, think fit to institute. The Committee has reverted therefore to the original idea of having groups, and numbering the Tables inside the groups. Thus, at any time, a further Table can be added to a group without trouble or dislocation of settled numbers. But it is proposed, in order to facilitate reference, to substitute letters for the names of groups. Thus the General Tables will be docketed "A," the Admission Tables "B," Discharge and Transfer Tables "C," Death Tables "D," and Residue Tables "E."

GENERAL TABLES.

Tables A 1 and A 2 differ in only slight degree from the form in which they have already been submitted. In the latter, three columns have been provided to express the recovery-rate calculated according to three methods :—The first corresponds with the percentage which appears in the Scottish and Irish Annual Reports of the Lunacy Commissioners ; the second with that in the Commissioners' Report for England and Wales, where Transfers and Statutory Readmissions are excluded from the admissions ; and the third aims at greater *local* accuracy for a particular set of cases, by not only making this exclusion from the admissions, but by also excluding any recoveries which may have taken place in cases admitted as Transfers.

Table A 3 is old Table IIA retained as an optional one.

ADMISSION-GROUP TABLES.

Certain of these Tables, notably B1, B2, and B5, now detail the same information for the Transfers as for the Direct Admissions. This involves to some extent an increase in labour, but it is in compliance with the strong desire felt by some to attain a local completeness of portraiture. The Committee has, however, throughout this group adhered to the principle they laid down in its report of last year, in which it was postulated that, for purposes of collective investigation, and the attainment of results of imperial value, accuracy of induction and the elimination of statistical fallacy

could not be essayed except means are steadily maintained of preventing an admixture of other classes of admissions with the important class signified by the term Direct. As the Committee previously pointed out, proper inquiries into the antecedents of the Transfers are generally impossible, and the relative number of this class seems to be increasing; moreover, the medical facts-on-admission will have already been once recorded and tabulated by both the central authority and locally by the asylum into which the case was originally admitted, and the repetition of these facts involves a gravely false statistic.

In revising certain other Tables, the Committee has taken advantage of the ready acceptance of the next step in classification whereby the cases are subdivided into Congenital, First-Attack, and Not-First-Attack, with a fourth class to take in those cases in which the information to distinguish between the last two classes is lacking, to somewhat extend this principle. It will be observed that it has done so in Tables B3, B4, B6, B7, and B8, as also in the first Table of the next group. It is a method of treating the cases to which it attaches no small importance, and, if the Association will acquiesce in restricting its request for information upon certain points to the First-Attack cases, a very considerable saving in labour to the compilers will ensue.

Tables B3 and B4.—In reviewing the Tables dealing with *Age* the Committee has felt that a statement of the age at commencement of the attack of mental disorder is a fact of greater intrinsic medical importance than the age on admission; both, it is true, will often be practically identical, but not always so, because the latter is not infrequently fortuitous.

Table B6.—In submitting the very simple form of Table in the Report presented last year, the Committee felt that the labour necessary to tabulate all the individual occupations which may be found in the admissions would, as a matter of fact, be time entirely wasted, except it was done in such a manner as to permit of an accurate comparison between the cases so tabulated and the published returns of the Registrar General. This necessitates the strict and full adoption of his classification of occupations and the arrangement of the cases in precisely similar age-periods, and involves a greater expendi-

ture of labour than the Committee felt prepared to seek until it had received some further mandate from the Association. That it gladly welcomed. It can now report that the English Commissioners in Lunacy have signified their willingness to co-operate and to issue a new schedule of occupations; in this, instead of numerals, as at present, composite symbols will be used. This will not only much facilitate reference but will permit of the necessary revision of the schedule at each census.

Tables B 7 and B 8.—The re-drafting of the Ætiological Table, which has been incorporated in the form of these two, has, in attempting to either harmonise or effect a compromise between the various conflicting views, been a serious task. The list of factors has been revised and amended. Their order now fulfils the undertaking given to the Association. The Committee, after very careful consideration, has come to the conclusion that both accuracy and simplicity will be promoted by studying the ætiology of the cases in the same four groups already alluded to. Table B 7 details the ætiology in respect to each of these groups, with a summary, in much the same fashion as is adopted in No. X of the Association's Tables at present in use, except that the terms Principal and Contributory replace Predisposing and Exciting, and that in the column "Principal" only one factor may be assigned for each case. To be content, however, with such a bald tabulation of the incidence of the various factors would, the Committee feel, be the presentment of a very partial truth, giving rise at every turn to questions which could only be answered by a statement of the correlation which existed between the several factors. To furnish the latter is the intention of Table B 8. The Committee is aware that there is more than one method of correlation which might be tabulated, and that, for instance, it might have asked for an expression of the factors (with the number of instances) associated in a contributory relationship with the number of instances any given factor appeared as the Principal: in other words and expressed concretely, if alcohol were returned as the principal factor in thirteen instances, what, if any, were the contributory factors and in how many instances were they present. This, at first sight, is an attractive method to adopt and moreover in the construction of the Table, it involves a considerably less number of entries. It would, in

truth, suffice were it a fact that not more than two factors were ever found in association in the same case. But, there being frequently three, and not uncommonly more, it follows that by this method the association between any two factors, when both happen to be contributory to a third, is entirely lost. The Committee is therefore persuaded that its proper course is to adopt the fuller method, feeling that the labour bestowed upon any less comprehensive method will be largely waste of time, that if accuracy can be attained the *Ætiology Table* may claim a position of first importance in the set, and that no one will grudge the extra labour necessary to compile it in the manner recommended. It will be observed that Table B 8 has reference only to First-Attack cases, and by that limitation a considerable saving of labour will be obtained. It will, of course, be open to any one to repeat the Table either for Congenital or Not-first-attack cases. In abolishing the side columns headed co-existing conditions, the importance of elucidating all that is possible in regard to the *ætiology* of General Paralysis has been recognised by retaining a column for this purpose.

Tables B 10 and B 11.—The Committee has prepared these Tables for recording inquiries concerning **Heredity of Insanity**. It proposes that these Tables should be entirely optional, since it recognises that a really reliable inquiry can only be made by those who may be more or less enthusiastic in working out intricate histories. A few such inquiries recorded with solicitous accuracy would be of far more value than a larger bulk of loose data.

The Committee believes that it is following the best advice in suggesting that such enthusiasts should not only furnish the optional Tables in form now submitted, but should also publish in their reports a copy of entries in a special register designed for the purpose of gathering up from time to time the particulars of cases in which inquiry has been successful and accurate, and which the Committee will submit if the principle of these Tables is adopted. The chief value of this procedure will be that the data would be preserved for ever, and therefore any person who was making a special study of the question could, at any future time, take the entries and use them for his own work.

The question of **Alcohol** could, in the Committee's opinion,

LI.

be elaborated on similar lines by those who take a special interest in the study. But the Committee, having no instructions, has not gone to the length of preparing any forms. If, however, the Association approves the idea it would undertake the preparation of them for approval hereafter.

DISCHARGE- AND TRANSFER-GROUP.

Table C 1 is an amplification of the corresponding Table submitted last year.

Table C 2.—By correlating the age-at-commencement of the attack, instead of that on recovery, with the duration, a means is afforded of comparing the recoveries with the admissions at similar age-periods. A still greater degree of accuracy of comparison would be attained if the cases, previous to correlation, were divided according to the attack into First, Not-first, and Unknown-whether-first-attack-or-not.

Table C 4 and Table C 5 Optional.—It has been pressed upon the Committee that it should recommend the *Ætiological* statistics being worked out, not only in the admissions, but in the successes and failures, including in the latter both deaths and residue. To do that obviously involves a very great expenditure of labour, especially in respect to the failures, much more indeed than it feels justified in asking the Association to sanction. It is, however, of opinion that there is much to be said in favour of adopting this course in respect to the recoveries, and it accordingly recommends the adoption of Table C 4 on similar lines to Table B 7, omitting, of course, the column for Congenital cases, and the adoption of Table C 5 as optional.

Table C 6.—The suggestion of Dr. Chapman has now been incorporated in this Table, but the Committee recognises that the compilation of this Table as a whole will be very laborious. Its main, indeed almost only, deduction will be the pressing home the fact that the earlier a case comes under treatment the sooner will recovery occur, and the better will be the chance for the latter. Is that not now a practically universally accepted doctrine among those to whom such figures have any meaning? Believing that to be the case, the Committee, while recognising the importance of the facts in the Table, recommends that it be regarded as optional.

DEATH- AND RESIDUE-GROUPS.

The minor alterations that have been made in these probably explain themselves. As promised, the Committee has carefully considered to what extent they might be modified in order to assist in the investigation of the "expectation of life" in the case of the Insane for Assurance purposes. It has, however, been forced to the conclusion that for this purpose a special set of Tables would be necessary. These it is prepared to frame and submit if desired, but it is not of opinion that they can legitimately form part of a series of Tables, the compilation of which the Association advises each asylum to annually undertake.

Certain forms have been prepared for the purpose of facilitating the expeditious and accurate expiscation of the Registers in such shape as to render tabulation, a merely mechanical operation. A specimen of one such form will be submitted. The cost of these "compilation forms" is likely to be quite light.

The Committee has come to the conclusion that it would be useful if each year a copy (*a*) of the Tables; (*b*) of the Explanatory Preface; and (*c*) of the compilation forms were sent at the expense of the Association to the Medical Superintendent of each Asylum, Hospital, and Licensed House (of sufficient size) as a matter of course, and also to the authorities of any kindred institution, or to any other authorised persons who may ask for them. If the idea is approved by the Association close estimates would be obtained for submission to either the Association or the Council.

The Committee recommends that it be continued in its work for another year in order to facilitate the initiation of the Scheme as finally approved. Further there will still be some arrangements and negotiations to be carried through, and this can best be done by those who have undertaken them so far.

Signed,

D. YELLOWLEES,
Chairman.

C. HUBERT BOND,
Secretary.

EXPLANATORY PREFACE.

DEFINITIONS OF TERMS USED IN THE REPORT AND STATISTICAL TABLES.

ADMISSIONS.

DIRECT ADMISSIONS—are persons received into an asylum on new certificates and a new order.

INDIRECT ADMISSIONS—include

A. Transfers, within the same country :

- (i) From Asylums.
- (ii) „ Registered Hospitals.
- (iii) „ Licensed Houses.
- (iv) „ Single-care (England).

B. Statutory Readmissions :

- (i) After Lapsed Orders.
- (ii) „ irregularities in Order or Certificate.

DISCHARGES AND TRANSFERS.

DISCHARGE—means a patient being absolutely freed from the control of the existing Order.

TRANSFER—means a change of habitat, the existing Order remaining in force.

RECOVERED, RELIEVED, NOT IMPROVED.

The Committee have carefully considered these terms and are unable to suggest any definitions which will be universally acceptable. They feel that they must be left to individual interpretation.

CONGENITAL OR INFANTILE.

Signifies that the patient has never at any time in his life shown the possession of normal mental faculties ; but does not include those cases of minor mental defect which are not certifiable.

ATTACK.

FIRST ATTACK—is the earliest recognition in the life of a patient by his friends or others of the fact that a patient is becoming insane, whether the progress of the symptoms may or may not lead to control or certification.

SECOND ATTACK—is not merely an exacerbation of a continuous mental disorder but implies recovery from a prior attack.

PREVIOUS ATTACK—includes defined manifestations of mental disease though such may not have led to control or detention.

DURATION OF ATTACK, PRIOR TO ADMISSION.

Is the length of time elapsing between admission and the earliest recognition by his friends or others that a person is becoming insane, in the course of the present attack.

TABLE AI.—GENERAL TABLE, showing the movement of the Asylum Population during the year 19...

	Certified Patients.		Voluntary Boarders.	
	M. F. T.	M. F. T.	M. F. T.	M. F. T.
On the Asylum Registers, Jan. 1st, 19
Total cases admitted during the year
Total cases under treatment during the year
Cases discharged or transferred, during the year, as—				
Recovered
Relieved
Not improved
Died during the year
Total cases discharged, transferred, and died during the year
On the Asylum Registers, Dec. 31st, 19
Average daily number on the Registers during the year

CERTIFIED PERSONS (*i.e. separate persons in contradistinction to "cases," which may include the same individual more than once*).

„ under care during the year . M. ; F. ; T. .

„ admitted „ ; „ ; „ .

„ recovered „ ; „ ; „ .

TABLE A.2.—GENERAL TABLE, showing the movement of the Asylum Population during each year since the year, together with the Recovery and Death Rates (excluding Voluntary Boarders).

Year.	Admissions.			Total No. under treatment.	Discharged or Transferred.			Died.	Remaining on Registers 31st Decem-ber.	Aver- age Daily Number on Regis- ters.	Per- centage of Total Reco- veries on Total Number of Admis- sions.	Per- centage of Reco- veries yielded by Direct Admis- sions on the Direct Regis- ters.	Per- centage of Deaths on Aver- age Daily Num- ber on Direct Regis- ters.
	Direct.	In- direct.	Total.		Reco- vered.	Re- lieved.	Not im- proved.						
	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.
•													
Total													

* The date and figures in respect of the year under report to be printed in bold type.

TABLE A3.—OPTIONAL.

Showing the Admissions and Recoveries of Persons from.....
to the present date.....19... (.....years).*

History of Recoveries of Persons.	The same, only omitting all persons transferred from other Asylums, etc.					
	M.	F.	T.	M.	F.	T.
Persons admitted during the years ...						
Of whom were discharged recovered, during the same period, being per cent. of persons admitted }						
Of whom were re-admitted relapsed † ...						
Leaving recovered persons who have not relapsed }						
Relapsed persons discharged recovered ‡ ...						
Net recovered persons,§ being per cent. of persons admitted }						

* Persons, *i. e.*, separate persons in contradistinction to *cases*, which may include the same individual more than once.

Re-admission applies only to re-admission into this Asylum.

† *i. e.*, persons who have relapsed one or more times.

‡ *i. e.*, after last re-admission, if relapsed more than once.

§ *i. e.*, recovered persons sane at the present time so far as the Asylum statistics show.

TABLE B1.—*Analysis of the Admissions during the year 19... (excluding Voluntary Boarders).*

CLASSES OF ADMISSIONS.	CONGENITAL.	ACQUIRED.			TOTAL.
		First attack.	Not first attack.	Unknown whether first attack or not.	
	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.
DIRECT					
INDIRECT { Transfers..... Statutory re-admissions					
TOTAL ADMISSIONS.					

TABLE B2.—*Showing the Duration of the present attack of Mental Disorder on Admission in the Admissions during the year 19..., distinguishing between the Direct and the Transfers, and stating (in those not congenital) whether First Attack or not (Voluntary Boarders excluded).*

Duration of mental disorder prior to admission.	DIRECT ADMISSIONS.			
	First attack.	Not first attack.	Unknown whether first attack or not.	Total.
	M. F. T.	M. F. T.	M. F. T.	M. F. T.
Less than 2 weeks				
2 weeks and less than 1 month				
1 month " 3 months				
3 months " 6 "				
6 " " 9 "				
9 " " 12 "				
12 " " 18 "				
18 " " 2 years				
2 years " 3 "				
3 " " 5 "				
<i>Longer known periods to be specified.</i>				
Duration unknown				
Congenital cases				
Totals				

TABLE B3.—*Whether, and in the Congenital Cases of the Direct Admissions.*

CLASSES OF AD-	0-74.		TOTAL.	CIVIL STATE.			
	Greater ages specified in quinquennia.			Single.	Married.	Widowed.	Unknown.
	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.
TOTAL ADMISSIONS AND TRANSFERS							
CONGENITAL CASES.	A.						
	B.						

TABLE B4.—*es "Unknown whether First Attack or not"—Not-First-Attack cases, respectively arranged. A statement of the number of Previous Attacks (Voluntary Boarders excluded.)*

CIVIL	0-74.		Age unknown.	TOTALS.
	Greater ages specified in quinquennia.			
	M. F. T.	M. F. T.	M. F. T.	M. F. T.
FIRST-ATTACK CASES.	Single .			
	Married			
	Widowed			
	Unknown			
	TOTALS			
NOT-FIRST-ATTACK CASES.	Single .			
	Married			
	Widowed			
	Unknown			
	TOTALS of and Not-			
THE AGES OF THE NOT-FIRST-ATTACK CASES.				

ed to recovery in

, T. .
 , T. .
 , T. .
 , T. .

TABLE B 5.—*Showing the Form of Mental Disorder on admission in the Direct Admissions and Transfers during the year 19... (Voluntary Boarders excluded).*

Forms of mental disorder.	Direct admissions.		Transfers.			Total.		
	M.	F.	M.	F.	T.	M.	F.	T.
Congenital or infantile mental deficiency:								
(a) Without epilepsy								
(b) With epilepsy								
Epileptic insanity								
General paralysis of the insane								
Dementia from tumours, coarse brain lesions, etc.								
Mania { Recent*								
Chronic								
Melancholia { Recent*								
Chronic								
Alternating insanity								
Volitional and moral insanities								
Delusional insanity								
Stupor and states of confusion								
Dementia { Primary								
Senile								
Secondary								
Total								

* The period of one year is taken as the limit of the term "recent."

TABLE B 6
TABLES B 7 AND B 8.—ÆTIOLOGICAL.

—
—
Pc
H
—
—

guishing between cases—*Congenital, First-Attack, Not-First-Attack, and*

TOTAL INCIDENCE.	CASES UNKNOWN-WHETHER-FIRST-ATTACK-OR-NOT.			TOTAL DIRECT ADMISSIONS.		
	PRINCIPAL.	CONTRIBUTORY.	TOTAL INCIDENCE.	TOTAL PRINCIPAL.	TOTAL CON- TRIBUTORY.	GRAND TOTAL INCIDENCE.
	Instances where regarded as the essential or chief factor. *	Instances where regarded as a contributory factor or associated condition. †		Total instances where regarded as the essential or chief factor.	Total instances where regarded as contributory factor or associated condition.	
F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.

existing b

and the numh

AL DEFECTS
ERORS.

4 Masturbation.	5 Sexual Excess.
F. M. F. M. F.	F. M. F. M. F.

TABLE B 10, OPTIONAL.—HEREDITY.

.....
.....
.....
.....

*Showing the number of Cases
which such was conf
on both sides, and th
Paternal or Matern*

It will be observed that when
uncle or aunt on the
affected, affection in
recorded when there

Collateral affection—meaning
recorded at all.

Headings (twenty-four), under o

A. Paternal side affected ; maternal side

1. Father, without either grand
2. Father and one or both pater
3. Paternal grandfather
4. Paternal grandmother
5. Both paternal grandparents
6. Paternal uncles and aunts, o

B. Maternal side affected ; paternal side

1. Mother, without either grand
2. Mother and one or both materal
3. Maternal grandfather
4. Maternal grandmother
5. Both maternal grandparents
6. Maternal uncles and aunts, o

C. Both paternal and maternal sides affected

1. Father and mother, with or

Father without mother, but with

TABLE B 11.—OPTIONAL.

Showing the number of instances in which an Insane Heredity was ascertained in the Parents and Grand-parents of the set of cases investigated, distinguishing the instances in which information, positive or negative, was certain and complete, from those in which such information was lacking.

Relatives of the cases investigated.	Known to be Alive.			Known to be Dead.			Unknown whether Alive or Dead.			Totals.		
	Insane at some time.	As yet never Insane.	Un-known whether ever Insane.	Totals still alive.	Insane at some time.	Never Insane.	Un-known whether ever Insane.	Known to have been some time Insane.	Un-known whether ever Insane.	Totals un-known whether alive or dead.	Known to have been some time Insane.	Known to have been as yet never Insane.
	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.	M. F. T.
Paternal grandfather	.	.	.									
" grandmother	.	.	.									
Maternal grandfather	.	.	.									
" grandmother	.	.	.									
Father	.	.	.									
Mother	.	.	.									
Totals	.	.	.									

TABLE C I.—*An Analysis of the Discharges and Transfers during the year 19... (Voluntary Boarders excluded.)*

	M. F. T.	M. F. T.	M. F. T.
DISCHARGED AS RECOVERED.			
From Direct Admissions.			
First-Attack Cases		
Not First-Attack Cases		
Cases unknown whether First Attack or not		
Total from Direct Admissions	
From Transfers.			
First-Attack Cases		
Not First-Attack Cases		
Cases unknown whether First Attack or not		
Total from Transfers	
Total Discharged as Recovered	
DISCHARGED (NOT RECOVERED) AS—		RELIEVED.	NOT IMPROVED.
RELIEVED	
NOT IMPROVED
Total
REASONS FOR SUCH DISCHARGE.			
To go to care of friends		
" workhouse		
" metropolitan asylum (<i>England</i>)		
To be boarded out		
Statutory, by irregularity in Reception Order		
" by lapsing of "		
Other reasons (<i>specifying them</i>) " "		
Total		
TRANSFERRED AS—			
RELIEVED	
NOT IMPROVED
Total
DESTINATIONS OF SUCH TRANSFERS.			
To other asylums, reg. hospitals, and licensed houses		
To "single care"		
Other destination (<i>specifying such</i>)		
Total		
TOTAL DISCHARGED AND TRANSFERRED AS—			
RELIEVED	
NOT IMPROVED

TABLE C 3.—*Showing the Form of Mental Disorder, on admission, in those Discharged Recovered during the year 19... (Voluntary Boarders excluded).*

Forms of Mental Disorder (on Admission).	M.	F.	T.
The foregoing Terminology (see Table B 5) to be used here as far as possible.			
Totals . . .			

TABLE C 4.—*Showing the Ætiological Factors ascertained in the Recoveries during the year 19..., distinguishing between cases—First-Attack, Not-First-Attack, and Unknown-whether-First-Attack-or-not. (Voluntary Boarders excluded.)*

The Table arranged precisely as Table B 7, except that columns for Congenital Cases will be omitted.

TABLE C 5.—OPTIONAL

Showing in respect of the First-Attack Cases in the Recoveries during the year 19... the full correlation between the various Ætiological Factors ascertained. (Voluntary Boarders excluded.)

It is intended that the form of this Table shall precisely follow that of Table B 8.

Showing in the Admission, either direct to this Institution or to any other Institution (absence "on leave") in this and any other Institution from which the First, "Not First," or "Unknown whether First or not" (Va

Duration of this Attack Admission either to this or to any other Institu the existing Reception	Institution from which the patient may										Grand Total.
	Total.	Unknown whether First Attack or not.									
		Under 1 m.	1 m. and under 3 m.	3 m. and under 6 m.	6 m. and under 9 m.	9 m. and under 1 yr.	1 yr. and under 2 yrs.	2 yrs. and under 3 yrs.	3 yrs. and over.	Total.	
F. T.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F. T.	M. F. T.	
Within 2 weeks											
2 weeks and within											
1 month											
3 months											
6 "											
9 "											
12 "											
18 "											
2 years											
3 "											
Longer duration spe - quinquennial perio											
Duration unknown											
Totals											

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TABLE C 6.—OPTIONAL.

TABLE D 2.—*Showing the Principal cause of death in each death during the year 19..., together with the ages at death in quinquennial periods. (Voluntary Boarders excluded.)*

Principal Causes of Death.	Ages at Death in Quinquennial periods.														Total.		
	Less than 10.	10—14.	15—19.	20—24.	25—29.	30—34.	35—39.	40—44.	45—49.	50—54.	55—59.	60—64.	65—69.	70 & over.			
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.			
As grouped by the Registrar-General, and using the Terminology of the Royal College of Physicians.																	*
Totals																	

* The figures in this column should correspond with those in the column indicated by an asterisk in Table D 1.

TABLE D 3.—Showing the Total Duration of the Present Attack of Mental Disorder in the Deaths during the year 19...., arranged according to the Form of Mental Disorder on admission. (Voluntary Boarders excluded.)

Form of Mental Disorder (on admission).	Total duration of Present Attack of Mental Disorder.														Totals.			
	Less than one month.	1 m. and less than 3 m.	3 m. and less than 6 m.	6 m. and less than 9 m.	9 m. and less than 12 m.	12 m. and less than 2 yrs.	2 yrs. and less than 3 yrs.	3 yrs. and less than 5 yrs.	5 yrs. and less than 10 yrs.	10 yrs. and less than 15 yrs.	15 yrs. and less than 20 yrs.	Longer periods specified in quinquennia.	Un- known.	Totals.				
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F. T.				
Congenital or infantile mental deficiency																		
(a) Without epilepsy																		
(b) With epilepsy																		
Epileptic insanity																		
General paralysis of the insane																		
Dementia from tumours, coarse brain lesions, etc.																		
Mania { Recent*																		
{ Chronic																		
Melancholia { Recent*																		
{ Chronic																		
Alternating insanity																		
Volitional and emotional insanities																		
Delusional insanity																		
Stupor and states of confusion																		
Dementia { Primary																		
{ Senile																		
{ Secondary																		
Totals																		

* The period of one year is taken as the limit of the term "Recent."

TABLE E. I.—Showing the ages (in quinquennial periods) of those on the Registers on the 31st December, 19...., arranged according to the Total Duration of present Attack of Mental Disorder. (Voluntary Boarders excluded).

Total duration of present attack of mental disorder.	Ages on 31st December, 19..... of those on Registers at that date.																Totals.	
	Less than 10.	10—14.	15—19.	20—24.	25—29.	30—34.	35—39.	40—44.	45—49.	50—54.	55—59.	60—64.	65—69.	70—75.	Ages over 75 specified in quinquennia.	Un-known.		
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.		M. F.
Congenital																		
Less than 3 months																		
3 months and less than 6 months																		
6 "																		
12 "																		
18 "																		
2 years																		
3 "																		
5 "																		
And afterwards in decennial periods																		
Totals																		*

* The figures here should correspond with the total of (a) and (b), Congenital Cases, in Table E. 2.

TABLE E 2.—*Showing the Form of Mental Disorder on 31st December, 19..., of those on the Registers at that date. (Voluntary Boarders excluded).*

Forms of Mental Disorder on 31st December.	M.	F.	T.
Congenital or infantile mental deficiency :			
(a) Without epilepsy			
(b) With epilepsy			
Epileptic insanity			
General paralysis of the insane			
Dementia from tumours, coarse brain lesions, etc.			
Mania { Recent *			
Chronic			
Melancholia { Recent *			
Chronic			
Alternating insanity			
Volitional and moral insanities			
Delusional insanity			
Stupor and states of confusion			
Dementia { Primary			
Senile			
Secondary			
Totals			
Prospect of mental recovery { Favourable			
Doubtful			
Unfavourable			

* The period of one year is taken as the limit of the term "Recent."

MEDICAL REGISTER—DIRECT ADMISSIONS.

Date of Admission.	No. in Civil Register.	Name.		Attack. †		Age.		Civil State.		Occupation.		Etiological Factors.		Form of Mental Disorder. (No entry to be made here in respect of Congenital Cases.)	Bodily State on Admission.		Observations.
		Brought forward.															
				Totals where possible.													

NOTE.—It will probably be convenient to use another book as a Register for Transfers. In small institutions the use of another portion of the same book, substituting the word *Transfer*, for *Direct Admissions* at the head of the page, would possibly suffice. It is intended that separate Registers for the Sexes shall be used.

* Where the information asked for in columns marked with an asterisk is unknown, U.K. should be entered to signify this. In cases where the age on present admission is not with certainty known, an approximate age should be entered.

† Each case must be entered in only one of these four columns.

REGISTER OF DISCHARGES AND TRANSFERS.

Date of discharge or transfer.	Date of last admission.	No. in civil register.	Name.	Sex.	Classification.	Discharged.	Transferred.	Class of Admission.	Attack.	Age.	Duration of present attack of mental disorder (in year, month, and day).	Form of mental disorder on admission.	Observations.	
				Male.	Rate-paid.	Not improved.	Not improved.	A direct admission.	First attack.	On Recovery.	Since admission on such order.	Total duration.	Epileptic insanity.	
				Female.	Private.	Recovered.	Relieved.	A direct admission.	Received as a transfer.	At commencement of recent attack of mental disorder.	Prior to admission on present or original order.		Mania:—Recent (R), Chronic (C).	
					Rate-paid.	Recovered.	Relieved.	A direct admission.	First attack.	On Recovery.	Since admission on such order.		Melancholia	
					Private.	Not improved.	Not improved.	A direct admission.	Received as a transfer.	On Recovery.	Since admission on such order.		Alternating insanity.	
					Rate-paid.	Not improved.	Not improved.	A direct admission.	Received as a transfer.	On Recovery.	Since admission on such order.		Volitional and moral insanities.	
					Private.	Not improved.	Not improved.	A direct admission.	Received as a transfer.	On Recovery.	Since admission on such order.		Delusional insanity.	
					Rate-paid.	Not improved.	Not improved.	A direct admission.	Received as a transfer.	On Recovery.	Since admission on such order.		Stupor and states of confusion.	
					Private.	Not improved.	Not improved.	A direct admission.	Received as a transfer.	On Recovery.	Since admission on such order.		Primary dementia.	
					Private.	Not improved.	Not improved.	A direct admission.	Received as a transfer.	On Recovery.	Since admission on such order.		Senile dementia.	
					Private.	Not improved.	Not improved.	A direct admission.	Received as a transfer.	On Recovery.	Since admission on such order.		Secondary dementia.	

In large institutions it would be probably convenient to have two such registers, one for each sex. Where one register serves for both sexes, it is suggested, in order to facilitate arriving at totals, that entries for females be in red ink.

REGISTER OF DEATHS.

Date of Death.	Date of last Admission.	No. in Civil Register.	Name.	Sex.		At Commencement of Present Attack of Mental Disorder.	At First Attack (if not a First Attack Case).	Class.	Duration of Present Attack of Mental Disorder (in years, months, and decimals of a month).	Causes of Death.			Form of Mental Disorder (as returned in Statement of Death).*		Observations.
				M.	F.					Principal. (One cause, and one only, must be entered here.)	Contributory. (All such to be entered here.)	On Admission.	At Death.		
						At Death.	At First Attack (if not a First Attack Case).	Rate-Paid. Private. Criminal (not included under Private).	Before Admission under Certificates.	Since Admission.	Total Duration.	Principal. (One cause, and one only, must be entered here.) Contributory. (All such to be entered here.) Verified by Post-mortem Examination.	Congenital or Infantile Mental Deficiency, without Epilepsy. Congenital or Infantile Mental Deficiency, with Epilepsy. Epileptic Insanity. General Paralysis of the Insane. Dementia from tumours, coarse brain lesions, etc. Mania—Recent (R.), Chronic (C.). Melancholia—Recent (R.), Chronic (C.). Alternating Insanity. Volitional and Moral Insanity. Delusional Insanity. Stupor and States of Confusion. Primary Dementia. Senile Dementia. Secondary Dementia.	Congenital or Infantile Mental Deficiency, without Epilepsy. Congenital or Infantile Mental Deficiency, with Epilepsy. Epileptic Insanity. General Paralysis of the Insane. Dementia from tumours, coarse brain lesions, etc. Mania—Recent (R.), Chronic (C.). Melancholia—Recent (R.), Chronic (C.). Alternating Insanity. Volitional and Moral Insanity. Delusional Insanity. Stupor and State of Confusion. Primary Dementia. Senile Dementia. Secondary Dementia.	

* The words in italics are only provisionally inserted. They have reference to a variation in the form of Statement of Death, which the Committee understand to be in contemplation.

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