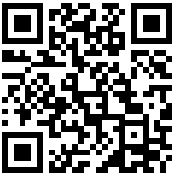

The Journal of mental science

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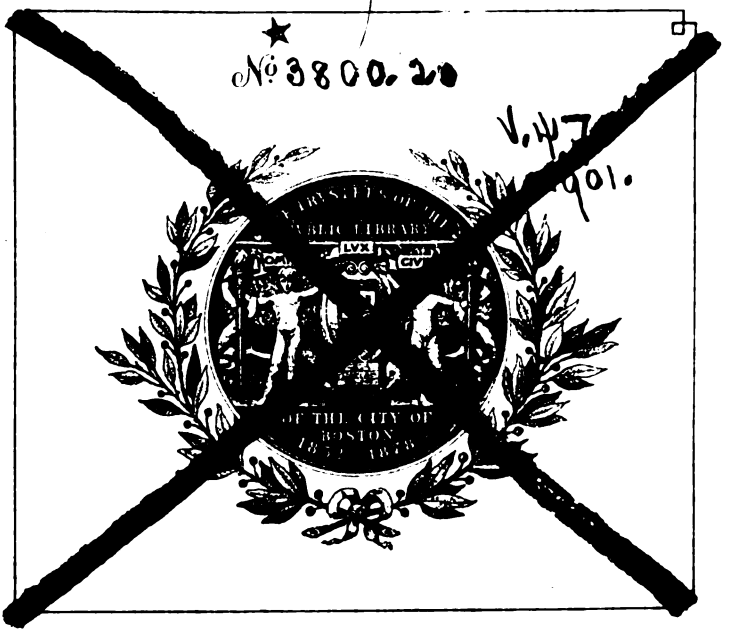

THE JOURNAL

OF

MENTAL SCIENCE.

VOL. XLVII.

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J. & A. CHURCHILL,

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MDCCCCI.

"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. Buchnill, M.D., F.R.S.*

THE

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1860. J. C. Bucknill, M.D., Devon County Asylum.
1861. Joseph Lalor, M.D., Richmond Asylum, Dublin.
1862. John Kirkman, M.D., Suffolk County Asylum.
1863. David Skae, M.D., Royal Edinburgh Asylum.
1864. Henry Munro, M.D., Brook House, Clapton.
1865. Wm. Wood, M.D., Kensington House.
1866. W. A. F. Browne, M.D., Commissioner in Lunacy for Scotland.
1867. C. A. Lockhart Robertson, M.D., Haywards Heath Asylum.
1868. W. H. O. Sankey, M.D., Sandywell Park, Cheltenham.
1869. T. Laycock, M.D., Edinburgh.
1870. Robert Boyd, M.D., County Asylum, Wells.
1871. Henry Maudsley, M.D., The Lawn, Hanwell.
1872. Sir James Coxe, M.D., Commissioner in Lunacy for Scotland.
1873. Harrington Tuke, M.D., Manor House, Chiswick.
1874. T. L. Rogers, M.D., County Asylum, Rainhill.
1875. J. F. Duncan, M.D., Dublin.
1876. W. H. Parsey, M.D., Warwick County Asylum.
1877. G. Fielding Blandford, M.D., London.
1878. Sir J. Crichton-Browne, M.D., Lord Chancellor's Visitor.
[illegible]. J. A. Lush, M.D., Fisherton House, Salisbury.

1880. G. W. Mould, M.R.C.S., Royal Asylum, Cheadle.
1881. D. Hack Tuke, M.D., London.
1882. Sir W. T. Gairdner, M.D., Glasgow.
1883. W. Orange, M.D., State Criminal Lunatic Asylum, Broadmoor.
1884. Henry Rayner, M.D., County Asylum, Hanwell.
1885. J. A. Eames, M.D., District Asylum, Cork.
1886. Geo. H. Savage, M.D., Bethlem Royal Hospital.
1887. Fred. Needham, M.D., Barnwood House, Gloucester.
1888. T. S. Clouston, M.D., Royal Edinburgh Asylum.
1889. H. Hayes Newington, M.R.C.P., Ticehurst, Sussex.
1890. David Yellowlees, M.D., Gartnavel Asylum, Glasgow.
1891. E. B. Whitcombe, M.R.C.S., City Asylum, Birmingham.
1892. Robert Baker, M.D., The Retreat, York.
1893. J. Murray Lindsay, M.D., County Asylum, Derby.
1894. Conolly Norman, F.R.C.P.I., Richmond Asylum, Dublin.
1895. David Nicolson, M.D., C.B., New Law Courts, Strand, W.C.
1896. William Julius Mickle, M.D., Grove Hall Asylum, Bow.
1897. Thomas W. McDowall, M.D., Morpeth, Northumberland.
1898. A. R. Urquhart, M.D., James Murray's Royal Asylum, Perth
1899. J. B. Spence, M.D., Burntwood Asylum, nr. Lichfield, Staffordshire.

HONORARY MEMBERS.

1896. Allbutt, T. Clifford, M.D., F.R.C.P., Regius Professor of Physic, Univ. Camb., St. Radegund's, Cambridge.

1881. Benedikt, Prof. M., Franciskaner Platz 5, Vienna.
1900. Blumer, G. Alder, Utica Hospital for the Insane, Providence, U.S.A. (*Ord. Mem.*, 1890.)
1900. Bresler, Johannes, M.D., Freiburg in Silesia, 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.)

1887. Chapin, John B., M.D., Pennsylvania Hospital for the Insane, Philadelphia, U.S.A.
1867.* Cleaton, John D., M.R.C.S.Eng., late Commissioner in Lunacy, 66, Victoria Street, S.W.
1872. Courtenay, E. Maziere, A.B., M.B., C.M.T.C.D., M.D., Inspector of Lunatics in Ireland, Lunacy Office, Dublin Castle. (*Hon. Member*, 1891; *Secretary for Ireland*, 1876-87.)
1884. Curwen, J., M.D., Warren, Pennsylvania State Hospital for the Insane, U.S.A.

1879. Echeverria, M. G., M.D.

1865. Falret, Jules, M.D., 114, Rue de Bac, Paris.
1892. Féré, Dr. Charles, 37, Boulevard St. Michel, Paris.
1895. Ferrier, David, M.D., 34, Cavendish Square, London.
1872. Fraser, John, M.B., C.M., F.R.C.P.E., Commissioner in Lunacy, 19, Strathearn Road, Edinburgh.

1868. } Gairdner, Sir William T., K.C.B., M.D.Edin., F.R.S., Professor of Practice
1888. } of Physic, 225, St. Vincent Street, Glasgow. (PRESIDENT, 1882.)

1898. 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.

1881. Krafft-Ebing, R. V., M.D., Vienna.

1866. Laehr, H., M.D., Schweizer Hof, bei Berlin, Editor of the *Zeitschrift für Psychiatrie.*

1887. Lentz, Dr., Asile d'Aliénés, Tournai, Belgique.

1898. MacDonald, A. E., M.D., Manhattan Asylum, New York, U.S.A.

1898. Magnan, V., M.D., Asile de Ste. Anne, Paris.

1871. } Manning, Frederick Norton, M.D.St. And., M.R.C.S. Eng., Inspector of
1884. } Asylums, 147, Macquarie Street North, Sydney, New South Wales.

1866. } Mitchell, Sir Arthur, M.D.Aberd., LL.D., K.C.B., late Commissioner in
1871. } Lunacy for Scotland; 34, Drummond Place, Edinburgh.

1897. Morel, M. Jules, M.D., States Lunatic Asylum, Mons, Belgium.

1880. Motet, M., 161, Rue de Charonne, Paris.

1889. Needham, Frederick, M.D. St. And., M.R.C.P.Edin., M.R.C.S.Eng., Commissioner in Lunacy, 19, Campden Hill Square, Kensington, W. (PRESIDENT, 1887.)

1891. O'Farrell, Sir G. P., M.D., M.Ch.Univ. Dubl., Inspector of Lunatics in Ireland, 19, Fitzwilliam Square, Dublin.

1881. Peeters, M., M.D., Gheel, Belgium.

1873. Pitman, Sir Henry A., M.D.Cantab., F.R.C.P.Lond., Registrar of the Royal College of Physicians; Enfield, Middlesex.

1900. Ritti, Ant., Maison Nationale de Charenton, St. Maurice, Paris. (*Corr. Mem.*, 1890.)

1886. Roussel, M. Théophile, M.D., Sénateur, Paris.

1887. Schüle, Heinrich, M.D., Illenau, 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.

1881. Tamburini, A., M.D., Reggio-Emilia, Italy.

1881. Virchow, Prof. R., University, Berlin.

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1880. Kornfeld, Dr. Herman, Grottkau, Silesia, Germany.

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1895. Lindell, Emil Wilhelm, M.D., Sweden.

1897. Näcke, Dr. P., Hubertusberg Asylum, Leipzig.

1886. Parant, M. Victor, M.D., Toulouse.

1890. Régis, Dr. E., 54, Rue Huguerie, Bordeaux.

1893. Semelaigne, Dr. Réné, Secrétaire des Séances de la Société Médico-Psychologique de Paris, 16, Avenue de Madrid, Neuilly, Seine, France.

MEMBERS OF THE ASSOCIATION.

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1900. Abbott, Arthur J., M.D., B.Ch., B.A.O., T.C.Dublin, Hants County Asylum, Fareham.

1900. Abbott, Henry Kingswell, M.B., B.Ch., M.D.Dublin, D.P.H.Ireland. Hants County Asylum, Fareham.

1891. Adair, Thomas Stewart, M.B., C.M.Edin., Assistant Medical Officer and Pathologist, Wadsley Asylum, near Sheffield.

1874. Adam, James, M.D.St. And., West Malling, Kent.

1868. Adams, Josiah O., M.D.Durh., F.R.C.S.Eng., Brooke House, Upper Clapton, London.

1857. Adams, Richard, L.R.C.P.Edin., M.R.C.S.Eng., Penhenver, Newquay, Cornwall.

1880. Agar, S. H., L.R.C.P.I., Glendossil, Henley-in-Ardeu.

1886. Agar, S. Hollingsworth, jun., B.A.Cantab., M.R.C.S., Glendossil, Henley-in-Arden.

1869. Aldridge, Chas., M.D.Aber., L.R.C.P., Plympton House, Plympton, Devon.

1899. Alexander, Hugh de Maine, M.D., District Asylum, Murthly, Perth, N.B.

1890. Alexander, Robert Reid, M.D.Aber., Medical Superintendent, Hanwell Lunatic Asylum.

1899. Allen, John Gower, L.R.C.P.&S.I., Part Proprietor, The Retreat, Armagh.

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, G., M.B., Medical Supt., County Asylum, Brentwood, Essex.

1900. Anderson, John Charles, M.D.Durh., Darenth Asylum, Dartford, Kent.

1898. Anderson, John Sewell, M.R.C.S., L.R.C.P., Assistant Medical Officer, Hull City Asylum, Willerby, near Hull.

1894. Andriezen, W. Lloyd, M.D.Lond., 7, Apsley Terrace, Acton, W.

1894. Angus, Charles, M.B., C.M., Royal Infirmary, Aberdeen.

1887. Aplin, A., M.R.C.S.E. and L.R.C.P.Lond., Medical Superintendent, County Asylum, Sneinton, Nottingham.

1898. Astbury, Thomas, M.R.C.S., L.R.C.P., Market Bosworth, near Nuneaton.

1892. Atherstone, Walter H., M.D., Surgeon-Superintendent, Port Alfred Asylum, South Africa.

1891. Aveline, Henry T. S., M.R.C.S., L.R.C.P., M.P.C., Medical Superintendent, County Asylum, Cotford, near Taunton, Somerset.

1894. Baily, Percy J., M.B.Edin., Senior Assistant Medical Officer, London County Asylum, Hanwell, W.

1878. Baker, H. Morton, M.B.Edin., Assistant Medical Officer, Leicester Borough Asylum, Humberstone, Leicester.

1888. Baker, John, M.B., Broadmoor Asylum, Crowthorne, Bucks.

1876. Baker, Robert, M.D.Edin., Visiting Physician, The Retreat, York; 41, The Mount, York. (PRESIDENT, 1892.)

1900. Barnes, Joseph Sandert, M.R.C.S.Eng., L.R.C.P.Lond., Borough Asylum, Portsmouth.

1895. Barraclough, Herbert, M.B., County Asylum, Devizes.

1878. Barton, James Edward, L.R.C.P.Edin., L.M., M.R.C.S., Medical Superintendent, Surrey County Lunatic Asylum, Brookwood, Woking.

1864. Bayley, J., 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.)

1897. Beadle, T. Alfred, L.R.C.P., L.R.C.S.Edin., Yarm-on-Tees, Yorkshire.

1892. Beadles, Cecil F., M.R.C.S., L.R.C.P., Assistant Medical Officer, Colney Hatch Asylum.

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.

1881. Benham, H. A., M.D., Medical Superintendent, City and County Asylum, Stapleton, near Bristol. (*Registrar.*)

1899. Beresford, Edwyn H., M.R.C.S. & M.R.C.P.Lond., Darenth Asylum, Dartford, Kent.

1894. Bernard, Dr. Walter, District Asylum, Londonderry.

1894. Blachford, James Vincent, M.B., B.S.Durham, Assistant Medical Officer, Bristol Asylum, Fishponds, near Bristol.

1899. Blackwood, Catherine Mabel, L.R.C.P. & S., L.F.P. & S.Glasg., Wadsley Asylum, near Sheffield.

1898. Blair, David, M.A., M.B., C.M., County Asylum, Lancaster.

1883. Blair, Robert, M.D., Medical Superintendent, Woodilee Asylum, Lenzie, near Glasgow.

1879. Blanchard, E. S., M.D., Medical Superintendent, Hospital for Insane, Charlotte Town, Prince Edward's Island.

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, London County Asylum, Banstead, Surrey.

1888. Blaxland, Herbert, M.R.C.S., Medical Superintendent, Callan Park Asylum, New South Wales.

1895. Bodington, George Fowler, M.D.Durh., F.R.C.S.Eng., M.R.C.P.Lond., Medical Superintendent, Government Asylum for the Insane, Province of British Columbia, Canada.

1897. Bois, Charles A., L.R.C.S., L.R.C.P.Edin., Senior Assistant Medical Officer, Lanark County Asylum, Hartwood, N.B.

1900. Bolton, Joseph Shaw, M.D., B.S., B.Sc.Lond., Claybury Hall, Woodford Bridge, Essex.

1892. Bond, Charles Hubert, D.Sc., M.D., Ch.M.Edin., Senior Assistant Medical Officer, London County Asylum, The Heath, Bexley, Kent.

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.

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1898. Boyle, A. Helen A., M.D., 3, Palmeira Terrace, Hove, Brighton.

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1893. Bramwell, John Milne, M.B., C.M.Edin., 2, Henrietta Street, Cavendish Square, London, 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.

1864. Brodie, David, M.D.St. And., L.R.C.S.Edin., 68, Hamilton Road, London, N.W.

1891. Bruce, John, M.B., C.M.Edin., M.P.C., Lauriston Town Hall Square, Grimsby.

1893. Bruce, Lewis C., M.B.Edin., Druid Park, Murthly, N.B.

* Brushfield, Thomas N., M.D.St. And., 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.

1894. Buggy, Louis, L.R.C.S.I., L.M., L.R.C.P.I., Assistant Medical Officer, District Asylum, Kilkenny.

1892. Bullen, Frederick St. John, M.R.C.S.Eng., 10, Pembroke Road, Clifton, Bristol.

1869. Burman, Wilkie J., M.D.Edin., Ramsbury, Hungerford, Berks.

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1874. Cameron, John, M.D.Edin., Medical Superintendent, Argyll and Bute Asylum, Lochgilphead.

1894. Campbell, Alfred Walter, M.D.Edin., Pathologist, County Asylum, Rainhill, near Prescot, Lancashire.

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1880. Campbell, P. E., M.B., C.M., Senior Assistant Medical Officer, District Asylum, Caterham.

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1896. Cashman, James, M.B., B.Ch., B.A.O.Royal Univ. Irel., Assistant Medical Officer, Cork District Asylum.

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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.)

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1899. Dudley, Francis, L.R.C.P. and S.I., Senior Assistant Medical Officer, County Asylum, Bodmin, Cornwall.

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1897. Grant-Wilson, Charles Westbrook, L.R.C.P.Lond., M.R.C.S.Eng., St. Winnows, Bromley, Kent.

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1896. Griffiths, George Batho G., M.R.C.S., L.R.C.P.Lond., Assistant Surgeon, H.M. Convict Prison, Parkhurst, Isle of Wight.

1899. Grogan, Amelia G., M.B., B.Ch., District Asylum, Mullingar, Ireland.

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1895. Harper, Thomas Edward, L.R.C.P.Lond., M.R.C.S.Eng., Assistant Medical Officer, St. Ann's Heath, Virginia Water.
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1897. Jones, Samuel Lloyd, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, London County Asylum, Colney Hatch, N.
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1899. Lewis, H. Wolseley, M.R.C.S.Eng., L.R.C.P.Lond., Horton Manor Asylum, near Epsom, Surrey.
1879. Lewis, William Bevan, West Riding Asylum, Wakefield.
1863. Ley, H. Rooke, M.R.C.S.Eng., Medical Superintendent, County Asylum, Prestwich, near Manchester.
1899. Ligertwood, Walter H., L.R.C.P., Wells Asylum, Somerset.
1900. Lindsay, David Lauder, L.R.C.P. & S.Edin., County Asylum, Exminster, Devon.
1859. Lindsay, James Murray, M.D.St. And., F.R.C.S. and F.R.C.P.Edin. 26, Combe Park, Bath. (PRESIDENT, 1893.)
1883. Lisle, S. Ernest de, L.R.C.P.I., Three Counties Asylum, Stotfold, Baldock.
1899. Longworth, Stephen G., L.R.C.P. and S.I., County Asylum, Melton, Suffolk.
1898. Lord, John R., M.B., C.M., London County Asylum, Bexley, Kent.
1872. Lyle, Thomas, M.D.Glas., 34, Jesmond Road, Newcastle-on-Tyne.

1899. Macartney, W. H. C., L.R.C.P. and S.I., The Grange, East Finchley, London, N.
1880. MacBryan, Henry C., Kingsdown House, Box, Wilts.
1897. McCutchan, William Arthur, L.R.C.P.S.Edin., Assistant Medical Officer, County and City Asylum, Hereford.
1884. Macdonald, P. W., M.D., C.M., Medical Superintendent, County Asylum, near Dorchester, Dorset. (*Hon. Sec. S.W. Division.*)
1893. Macevoy, Henry John, M.D., B.Sc.Lond., M.P.C., 41, Buckley Road, Brondesbury, 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.
1891. Mackenzie, Henry J., M.B., C.M.Edin., M.P.C., Assistant Medical Officer, The Retreat, York.
1886. Mackenzie, J. Cumming, M.B., C.M., M.P.C., late Medical Superintendent, District Asylum, Inverness; care of Mr. Mackenzie, Enzie Station, Buckie, N.B.
1899. Mackeown, W. 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., 10, Lancaster Road, Belsize Park, N.W.
1873. Macleod, M. D., M.B., Medical Superintendent, East Riding Asylum, Beverley, Yorks.
1899. MacLulich, Peers, M.B., B.C., B.A.Dub., Joint Counties Asylum, Carmarthen, S. Wales.

1899. Macmillan, Niel Harrismith, M.B.Edin., M.R.C.S.Eng., Claybury Asylum, Woodford Bridge, Essex.

1898. Macnaughton, George W. F., M.D., Warwick Lodge, 436, Fulham Road, London, S.W.

1882. Macphail, Dr. S. Rutherford, Derby Borough Asylum, Rowditch, Derby.

1896. Macpherson, Dr. Charles, Deputy Commissioner in Lunacy, 51, Queen Street, Edinburgh.

1886. Macpherson, John, M.B., M.P.C., 8, Darnaway Street, Edinburgh.

1895. Madge, Arthur E., M.R.C.S.Eng., L.R.C.P.Lond., Priestwood, Bracknell, Berks.

1896. Maguire, Charles Evan, M.B., C.M., Assistant Colonial Surgeon, Lagos, West Africa.

1896. Mallanah, S., M.B.Edin., Medical School, Hyderabad, Deccan, India.

1865. Manning, Harry, B.A.Lond., M.R.C.S., Laverstock House, Salisbury.

1900. Manning, Herbert C., M.R.C.S., L.R.C.P., County Asylum, Cotford, near Taunton.

1896. Marr, Hamilton C., M.D.Glasg. Univ., Senior Assistant Physician, Woodilee Asylum, Lenzie.

1897. Marshall, John, M.B., C.M.Glasg., Assistant Medical Officer, County Asylum, Bridgend, Glamorgan.

1896. Martin, James Clarke, L.R.C.S.I., L.M., L.R.C.P., Assistant Medical Officer, District Asylum, Letterkenny.

1897. Mathieson, George, M.B., C.M.Glasg., Fir Vale, Sheffield.

1888. McAlister, William, M.B., C.M., The Elms, Kilmarnock, N.B.

1900. McClintock, John, L.R.C.P. & L.R.C.S.Edin., Resident Medical Superintendent, Grove House, Church Stretton, Salop.

1886. McCreery, James Vernon, L.R.C.S.I., Medical Superintendent, Hospital for Insane, New, Victoria.

1900. McConaghey, J. C., M.B., C.M.Edin., Hill End Asylum, St. Albans.

1876. McDowall, John Greig, M.B.Edin., Medical Superintendent, West Riding Asylum, Menston, near Leeds.

1870. McDowall, T. W., M.D.Edin., L.R.C.S.E., Medical Superintendent, Northumberland County Asylum, Morpeth. (PRESIDENT, 1897.)

1899. McKelvey, Alexander Niel, L.&M.P.C.P.&S.I., District Asylum, Omagh, co. Tyrone, Ireland.

1882. McNaughton, John, M.D., Medical Superintendent, Criminal Lunatic Asylum, Perth.

1894. McWilliam, Alexander, M.B., C.M.Aberd., Medical Superintendent, Heigham Hall, Norwich.

1890. Menzies, W. 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.D.Aberd., 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.)

1867. Mickley, George, M.A., M.B.Cantab., Freshwell House, Saffron Walden, Essex.

1893. Middlemass, James, M.D., F.R.C.P., C.M., B.Sc.Edin., Borough Asylum, Ryhope, Sunderland.

1898. Middlemist, George Edwyn, M.B., Moretonhampstead, Devon.

1883. Miles, George E., M.R.C.P., &c., Medical Superintendent, Hospital for the Insane (Idiots), Newcastle, N.S.W.

1887. Miller, Alfred, M.B. and B.C.Dubl., Medical Superintendent, Hatton Asylum, Warwick.
1893. Mills, John, M.B., B.Ch., and Diploma in Mental Diseases, Royal University of Ireland, Assistant Medical Officer, District Asylum, Ballinasloe.
1881. Mitchell, R. B., M.D., Medical Supt., Midlothian District Asylum.
1885. Molony, John, F.R.C.P.I., Med. Supt., St. Patrick's Hospital, Dublin.
1897. Montgomery, Sydney Hamilton Rowan, M.B., B.Ch., B.A.O., Royal University, Ireland, Assistant Medical Officer, Borough Asylum, Nottingham.
1878. Moody, James M., M.R.C.S.Eng., L.R.C.P. and L.M.Edin., Medical Superintendent, County Asylum, Cane Hill, Surrey.
1885. Moore, E. E., M.B.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.B., Assistant Medical Officer, Brislington House, Bristol.
1896. Mott, F. W., M.D., B.S., F.R.C.P.Lond., F.R.S., 25, Nottingham Place, W.; Pathologist, London County Asylum; Assistant Physician, Charing Cross Hospital.
1896. Mould, G. E., M.R.C.S., L.R.C.P.Lond., The Grange, Rotherham, Yorks.
1862. Mould, George W., M.R.C.S.Eng., Medical Superintendent, Royal Lunatic Hospital, Cheadle, Manchester. (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.Aberd., D.P.H.Cantab., Medical Superintendent, Borough Asylum, Portsmouth.
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., Darenth Asylum, Dartford, Kent.
1878. Murray, Henry G., L.R.C.P.Irel., L.M., L.R.C.S.I., Assistant Medical Officer, Prestwich Asylum, Manchester.
1891. Musgrove, C. D., M.D.Edin., 8, Herbert Terrace, Penarth, S. Wales.

1880. Neil, James, M.D., M.P.C., Assistant Medical Officer, Warneford Asylum, Oxford.
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., Ticehurst, Sussex. (PRESIDENT, 1889.) (*Treasurer.*)
1893. Newington, John, M.B.Edin., Riseholme, Bushey, Herts.
1881. Newth, A. H., M.D., Haywards Heath, Sussex.
1869. Nicolson, David, C.B., M.D., C.M.Aberd., M.R.C.P.Edin., F.S.A.Scot., Balgownie, Edgeborough Road, Guildford. (PRESIDENT, 1895.)
1899. Nixon, J. C., M.B., West Riding Asylum, Menston, nr. Leeds.
1893. Nobbs, Athelstane, M.B., C.M.Edin., 339, 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. Nootl, Reginald Harry, M.B., C.M.Edin., Senior Assistant Medical Officer, Broadmoor Criminal Lunatic Asylum, Crowthorne, Wokingham.
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, J. A., M.D., Medical Superintendent, District Asylum, Waterford, Ireland.

1892. O'Mara, Dr., District Asylum, Ennis, Ireland.
1881. O'Meara, T. P., M.B., Medical Superintendent, District Asylum, Carlow, Ireland.
1886. O'Neill, E. D., L.R.C.P.I., Medical Superintendent, The Asylum, Limerick.
1897. Orange, Margaret, L.S.A.Lond., M.B.Brux., Assistant Medical Officer, London County Asylum, Claybury, Essex.
1868. Orange, William, M.D.Heidelb., F.R.C.P.Lond., C.B., The Bryn, Godalming, Surrey. (PRESIDENT, 1883.)
1890. Oswald, Landel R., M.B., M.P.C., Medical Superintendent, City of Glasgow District Asylum, Gartcosh, N.B.
1899. Owen, Corbet W., M.B., C.M.Edin., Counties Asylum, Denbigh, North Wales.

1898. Parker, William Arnot, M.B., C.M., Gartlock Asylum, Gartcosh, N.B.
1899. Parsons, L. D., B.A., M.B., Ch.B., County Asylum, Bodmin, Cornwall.
1898. Pasmore, Edwin Stephen, M.D.Lond., M.R.C.P.Lond., London County Asylum, Banstead, Sutton, Surrey.
1899. Paton, Robert N., L.R.C.P., L.R.C.S.Edin., Medical Officer, H.M. Prison, Wormwood Scrubs, London, W.
1899. Patrick, John, M.B., Ch.B., District Asylum, Belfast.
1892. Patterson, Arthur Edward, M.B., C.M.Aberd., Senior Assistant Medical Officer, City of London Asylum, Dartford.
1869. Peacock, H. G., L.R.C.P.Edin., M.R.C.S. and L.S.A.Lond., The Homestead, Monckton Combe, near Bath, and Ashwood House, Kingswinford, Dudley.
1899. Pearce, G. Heneage, 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.
1899. Penfold, William James, M.B., C.M.Edin., County Asylum, Morpeth, Northumberland.
1893. Perceval, Frank, M.R.C.S.Eng., L.R.C P.Lond., Medical Superintendent, County Asylum, Whittingham, Preston, Lancashire.
1878. Philipps, Sutherland Rees, M.D., C.M. Queen's Univ. Irel., F.R.G.S., 2, Berkeley Place, Cheltenham.
1875. Philipson, 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.
1871. Pim, F., Esq., M.R.C.S.Eng., L.R.C.P.Irel., Medical Superintendent, Palmerston, Chapelizod, co. Dublin, Ireland.
1898. Piper, Francis Parris, M.B.Lond., M.R.C.S., L.R.C.P., London County Asylum, Bexley, Kent.
1890. Pitcairn, J. J., L.R.C.P., M.R.C.S., M.P.C., 1, Parkhurst Road, Holloway, N.
1896. Planck, Charles, M.R.C.S.Eng., L.R.C.P.Lond., M.A.Camb., Assistant Medical Officer, East Sussex County Asylum, Haywards Heath.
1877. Plaxton, Joseph William, M.R.C.S., L.S.A.Eng., Lunatic Asylum, Kingston, Jamaica.
1889. Pope, George Stevens, L.R.C.P. and L.R.C.S.Edin., L.F.P. and S.Glasg., Medical Superintendent, Middlesbrough Asylum, Cleveland, Yorks.
1900. Powell, A. B. S., L.R.C.P. and S.Edin., The Priory, Roehampton, Surrey.
1876. Powell, Evan, M.R.C.S.Eng., L.S.A., Medical Superintendent, Borough Lunatic Asylum, Nottingham.
1891. Price, Arthur, M.R.C.S., L.S.A., M.P.C., Merriebank, Moss Lane, Aintree, Liverpool.

1875. Pringle, H. T., M.D.Glasg., Medical Superintendent, County Asylum, Bridgend, Glamorgan.

1899. Pulford, Herbert, M.A., M.B., B.C.Cantab., Assistant Medical Officer, St. Luke's Hospital, London, E.C.

1899. Rainsford, F. E., B.A., M.B., T.C.D., Resident Physician, Stewart Institute, Palmerston, co. Dublin.

1894. Rambaut, Daniel F., M.D.Univ. Dubl., Third Assistant Medical Officer and Pathologist, Richmond District Asylum, Dublin.

1889. Raw, Nathan, M.D., M.P.C., Mill Road Infirmary, Liverpool.

1893. Rawes, William, M.B.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., and Upper Terrace House, Hampstead, London, N.W. (PRESIDENT, 1884.) (*Late General Secretary.*) (*Editor of Journal.*)

1899. Redington, John, L.R.C.P., L.R.C.S.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.

1897. Richard, William J., M.A., M.B., C.M.Glasg., Medical Officer, Govan Parochial Asylum, Merryflats, Govan.

1899. Richards, John, M.B., C.M.Edin., Leicestershire and Rutland Asylum, Leicester.

1889. Richards, Joseph Peeke, M.R.C.S., L.S.A., 6, Freeland Road, Ealing, W.

1899. Richardson, A. Y., M.B., B.S., County Asylum, Melton, Suffolk.

1899. Rice, David, L.R.C.P., Cheddleton Asylum, nr. Leek, Staffs.

1893. Rivers, William H. Rivers, M.D.Lond., St. John's College, Cambridge University.

1871. Robertson, Alexander, M.D.Edin., 11, Woodside Crescent, Glasgow.

1887. Robertson, G. M., M.B., C.M., M.P.C., Medical Superintendent, District Asylum, Larbert, Stirling.

1895. Robertson, William Ford, M.B., C.M., 7, Hill Square, Edinburgh.

1900. Robinson, Harry A., M.B., Ch.B.Vict., County Asylum, Rainhill, near Liverpool.

1899. Rochfort-Brown, Herbert, M.A.Oxon., M.B., F.R.C.S.Eng., Medical Officer, Natal Government Asylum, Pietermaritzburg, Natal, South Africa.

1876. Rogers, Edward Coulton, M.R.C.S.Eng., L.S.A., County Asylum, Fulbourn, Cambridge.

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.Durh., Senior Assistant Medical Officer, Middlesex County Asylum, Tooting, S.W.

1879. Ronaldson, J. B., L.R.C.P.Edin., Medical Officer, District Asylum, Haddington.

1879. Roots, William H., M.R.C.S., Canbury House, Kingston-on-Thames.

1899. Rorie, George Arthur, M.B., C.M., Westgreen House, Dundee, N.B.

1860. Rorie, James, M.D.Edin., L.R.C.S.Edin., Medical Superintendent, Royal Asylum, Dundee. (*Late Hon. Secretary for Scotland.*)

1888. Ross, Chisholm, M.B.Edin., M.D.Sydney, Hospital for the Insane, Kenmore, New South Wales.

1899. Rotherham, Arthur, M.B., B.C.Cantab., Horton Manor Asylum, near Epsom, Surrey.

1884. Rowe, E. L., L.R.C.P.Edin., Medical Superintendent, Borough Asylum, Ipswich.
1883. Rowland, E. D., M.D., C.M.Edin., The Public Hospital, New Amsterdam, British Guiana.
1877. Russell, A. P., M.B.Edin., The Lawn, Lincoln.
1883. Russell, F. J. R., L.R.C.P.Irel.
1866. Rutherford, James, M.D.Edin., F.R.C.P.Edin., F.F.P.S.Glasgow, Physician Superintendent, Crichton Royal Institution, Dumfries. (*Hon. Secretary for Scotland*, 1876–86.)
1896. Rutherford, James M., M.B., C.M.Edin., Assistant Physician, Royal Edinburgh Asylum, Morningside.
1896. Rutherford, Robert Leonard, M.D., Medical Superintendent, Digby's Asylum, Exeter.
1892. Ruttledge, Victor, M.B., District Asylum, Londonderry, Ireland.

1894. Sankey, Edward H. O., M.A., M.B., B.C.Cantab., Resident Medical Licensee, Boreatton Park Licensed House, Baschurch, Salop.
* Sankey, R. Heurtley H., M.R.C.S.Eng., Medical Superintendent, Oxford County Asylum, Littlemore, Oxford.
1891. Saunders, Charles Edwards, M.D.Aberd., M.R.C.P.Lond., Medical Superintendent, Haywards Heath Asylum, Sussex.
1873. Savage, G. H., M.D.Lond., 3, Henrietta Street, Cavendish Square, W. (*Late Editor of Journal.*) (PRESIDENT, 1886.)
1894. Scanlan, William T. A., M.B., M.Ch., B.A.O.R.U.I., Assistant Medical Officer, District Asylum, Cork.
1862. Schofield, Frank, M.D.St. And., M.R.C.S., Windermere, Spa Road, Weymouth.
1899. Scott, Charles R., M.B., C.M.Edin., Warneford Asylum, Oxford.
1896. Scott, James, M.B., C.M.Edin., Medical Officer, H.M. Prisons, Holloway and Newgate; 3, Parkhurst Road, Holloway, London, N.
1889. Scowcroft, Walter, M.R.C.S., Senior Assistant Medical Officer, Royal Lunatic Hospital, Cheadle, near Manchester.
1850. Seccombe, George, L.R.C.P.L., The Colonial Lunatic Asylum, Port of Spain, Trinidad, West Indies.
1879. Seed, William, M.B., C.M.Edin., The Poplars, 110, Waterloo Road, Ashton-on-Ribble, Preston.
1899. Sells, Charles John, L.R.C.P., M.R.C.S., L.S.A., White Hall, Guildford.
1882. Seward, W. J., M.B.Lond., M.R.C.S., Medical Superintendent, Colney Hatch, Middlesex.
1891. Shaw, Harold B., B.A., M.B., B.B., D.P.H.Camb., Medical Superintendent, Isle of Wight County Asylum, Whitecroft, Newport, Isle of Wight.
1880. Shaw, James, M.D., 310, Kensington, Liverpool.
1867. Shaw, Thomas C., M.D.Lond., F.R.C.P.Lond., Medical Superintendent, London County Asylum, Banstead, Surrey.
1882. Sheldon, T. S., M.B., Medical Superintendent, Cheshire County Asylum, Parkside, Macclesfield.
1900. Shera, J. E. P., L.R.C.P.I., Kent County Asylum, Chartham, near Canterbury.
1898. Sherrard, David John, B.A., M.B., M.Ch.Dubl., The Laurels, Hailsham, Sussex.
1900. Shoyer, A. F., M.B., B.C., B.A.Cantab., County Asylum, Lancaster.
1877. Shuttleworth, G. 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, Purley, Surrey.
1895. Simpson, Francis Odell, M.R.C.S., L.R.C.P., Senior Assistant Medical Officer, County Asylum, Rainhill, near Liverpool.

1889. Simpson, Samuel, M.B. and M.C.H.Dubl., M.P.C., St. Mark's Road, Enfield.
1888. Sinclair, Eric, M.D., Medical Superintendent, Gladesville Asylum, New South Wales.
1870. Skae, C. H., M.D.St. And., Medical Superintendent, Ayrshire District Asylum, Glengall, Ayr.
1891. Skeen, James Humphrey, M.B., C.M.Aberd., 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.
1897. Smalley, Herbert, M.D.Durh., L.R.C.P., M.R.C.S., Prison Commission, Home Office, Whitehall, S.W., and 62, York Mansions, Battersea Park, London.
1899. Smith, J. G., M.D., Herts County Asylum, Hill End, St. Albans, Herts.
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.Aberd., L.R.C.S.Edin., Middelton Hall, Middelton St. George, Durham.
1884. Smith, W. Beattie, F.R.C.S.Edin., L.R.C.P.Lond., Medical Superintendent, Hospital for the Insane, Kew, Melbourne, Victoria.
1899. Smyth, Walter, M.B., B.Ch., R.U.I., Assistant Medical Officer, County Antrim.
1881. Snell, George, M.D.Aberd., M.R.C.S.Eng., 3, Pembroke Vale, Clifton, Bristol.
1885. Soutar, J. G., Barnwood House, Gloucester.
1883. Spence, J. B., 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, formerly *Registrar*.)
1899. Spicer, A. H., M.B., B.S.Lond., Assistant Med. Officer, Claybury Asylum, Woodford Bridge, Essex.
1898. Sproat, James Hugh, M.B.Lond., M.R.C.S., L.R.C.P., Somerset and Bath Asylum, Wells.
1891. Stansfield, T. E. K., M.B., C.M.Edin., The Heath Asylum Bexley, Kent.
1898. Steen, Robert H., M.D.Lond., West Sussex Asylum, near Chichester.
1899. Stevens, Reginald C. J., M.B., B.S.Durh., County Asylum, Exminster, Devon.
1868. Stewart, James, B.A.Queen's Univ.Irel., F.R.C.P.Edin., L.R.C.S.Irel., late Assistant Medical Officer, Kent County Asylum, Maidstone; Dunmurry, Sneyd Park, near Clifton, Gloucestershire.
1884. Stewart, Robert S., M.D., C.M., Assistant Medical Officer, County Asylum, Glamorgan.
1887. Stewart, Rothsay C., M.R.C.S., Medical Superintendent, County Asylum, Leicester.
1862. Stilwell, Henry, M.D.Edin., M.R.C.S.Eng., Moorcroft House, Hillingdon, Middlesex.
1899. Stilwell, Reginald J., M.R.C.S., L.R.C.P., Moorcroft House, Hillingdon, Middlesex,
1864. Stocker, Alonzo Henry, M.D.St. And., M.R.C.P.Lond., M.R.C.S.Eng., Medical Superintendent, Peckham House Asylum, Peckham.
1897. Stoddart, William Henry Butter, M.D., B.S.Lond., M.R.C.S.Eng., M.R.C.P.Lond., Bethlem Royal Hospital, London, S.E.
1900. Stracey, Bernard, M.B., Ch.B.Edin., Crichton Royal Institution, Dumfries, N.B.
1881. Strahan, S. A. K., M.D., Assistant Medical Officer, County Asylum, Berrywood, near Northampton.
1868. Strange, Arthur, M.D.Edin., Medical Superintendent, Salop and Montgomery Asylum, Bicton, near Shrewsbury.

1899. Strangman, Lucia F., L.R.C.P. & S.I., L.M., District Asylum, Cork.
1896. Straton, Charles Robert, F.R.C.S.Edin., Medical Visitor, Fisherton House and Laverstock House, West Lodge, Wilton, Wilts.
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1886. Suffern, A. C., M.D., Medical Superintendent, Ruberry Hill Asylum, near Bromsgrove, Worcestershire.
1894. Sullivan, W. C., M.D.R.U.I., H.M. Prison, Pentonville, London, N.
1898. Sutcliffe, John, M.R.C.S., L.R.C.P., Royal Asylum, Cheadle, near Manchester.
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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.

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1895. Waterson, Jane Elizabeth, M.D.Brussels, L.R.C.P.I., L.R.C.S.Edin., Official Visitor, Cape Town District Lunatic Asylums, Cape Town, South Africa.

1891 Watson, George A., M.B., C.M.Edin., M.P.C., 29, Abbot's Park Road, Leyton, Essex.

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1898. Watson, William R. K., M.A., M.B., C.M., H.M. Prison, Holloway, London, N.

1885 Watson, William Riddell, L.R.C.S. and L.R.C.P.Edin., Govan District Asylum, Hawkhead, Paisley.

1880. Weatherly, Lionel A., M.D., Bailbrook House, Bath.

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1883. Wiglesworth, J., M.D.Lond., Rainhill Asylum, Lancashire.

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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.

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1873. Woods, Oscar T., M.B., M.D.Dubl., L.R.C.S.I., Medical Superintendent, District Asylum, Cork. (*Hon. Secretary for Ireland*, 1897.)

1900. Worth, Reginald, M.R.C.S., L.R.C.P., Middlesex County Asylum, Wandsworth, S.W.

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1899. Wrangham, John Marris, B A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., Wadsley Asylum, Sheffield.

1898. Yeates, Thomas, M.B., C.M., Borough Asylum, Ryhope, Sunderland.

1862. Yellowlees, David, M.D.Edin., F.F.P.S.Glasg., LL.D., Physician Superintendent, Royal Asylum, Gartnavel, Glasgow. (PRESIDENT, 1890.)

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1 To whom the Gaskell Prize (1887) was awarded.
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Friedrich Nietzsche

Frontispiece.

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Part I.—Original Articles.

Friedrich Nietzsche: a Study in Mental Pathology. By WILLIAM W. IRELAND.

FRIEDRICH NIETZSCHE was descended from a noble Polish family which sought refuge in Germany from religious persecution. His ancestors on both sides are reported to have been healthy and long-lived. His father was a Lutheran clergyman, his mother the daughter of a clergyman. He was born on the 15th of October, 1844, in the parsonage of Röcken, in Prussian Saxony. His father laboured under a cerebral affection for eleven months, and died when Friedrich was five years of age. His sister, Frau Förster Nietzsche,(1) tells us that this was the consequence of a fall on the head; but Friedrich stated his belief that his own nervous disorders were inherited from his father.

Olla Hansson (2) learned from a family who knew Friedrich Nietzsche from childhood that a disposition to insanity had been inherited for several generations, both on the father's and the mother's side.

Frau Lou Andreas Salomé acted as secretary to Nietzsche for five months in 1882, and afterwards kept up a friendly correspondence with him. In her book on Nietzsche she shows much analytical skill, though her work is somewhat too disquisitional, and contains few of those traits which female observers are apt to record. Her estimate differs from the fond appreciation of his sister, who passionately accuses her of misrepresenting her brother's character.

As a child, nothing particular is recorded of his health, save that he was two and a half years old before he began to speak. In boyhood he was fond of solitude, shunning other children, and nice in his habits. From his pious and studious ways he was called the little parson. His education was continued at the Universities of Bonn and Leipzig, where he disliked the noisy drinking and smoking habits of the students.

Nietzsche was appointed Professor of Philology in the University of Basle when but twenty-four years of age. He had none of the struggles which sometimes beset the early life of the scholar, but stepped at once into a good position with a moderate income. On the strength of this promotion he was made Doctor of Philosophy by the University of Leipzig without examination or thesis, and spent much of his leisure time at the house of Richard Wagner, the musician, at Lucerne. Nietzsche was then an enthusiast for music, and some of his compositions are given in the biography by his sister. He had a keen appreciation of poetry, and wrote verses which are difficult to read or understand, his poetical fire giving forth much smoke, but rarely bursting into flame.

His peaceful life was broken by the war of 1870, when he went to serve in the ambulance corps. In France he was seized with diphtheria and cholera nostras. He reached Erlangen with difficulty, there to fall prostrate, and never thereafter quite recovered his health. He had never completed his service as a soldier, owing to an injury received in springing upon an unruly horse, nor would the Swiss State have allowed him to take part as a combatant.

From this time he used to suffer about every two or three weeks from attacks of migraine, violent headaches, sickness, narrowing of the field of vision, and sleeplessness. These attacks were often accompanied by mental distress.

Frau Förster-Nietzsche insists that her brother had naturally a good constitution; he was broad and muscular, and suffered from no defect save that he was very short-sighted. This both he and his sister seem to have inherited from their father. Though retiring and undemonstrative to those whom he did not know well, he was naturally very sensitive and pitiful, mild and gentle in manner. In the summer of 1875, after an unusual time of suffering, he wrote to a female friend, "Such as we (you and I) never suffer in the body alone; all is inter-

grown with mental crises, so I have no conception how I could become again sound through medicine and cookery. The secret of all recovery for us is to gain a certain toughness of skin as a protection from our great internal sensitiveness and irritability. Nothing from without may hurt or bruise, and I no more suffer as if fire scorched me from within and without."

In 1876 Nietzsche got a year's leave to recruit his health, and spent the winter in Sorrento, but his malady followed him everywhere, and in the beginning of 1879, after holding it for ten years, he had to resign his professorship with a pension of 3000 francs. His friend Burckhardt, Professor of the History of Art, said that Basle never had such a teacher, and he is reported to have had great influence over young men.

Nietzsche now led a wandering life amongst the Swiss mountains and in Italy, principally in the Engadine and Genoa. In 1880 he wrote, "There lies a heavy, heavy load upon me. Last year I had 118 days of distress. I still lived, but I could not see three steps before me." His eyesight became so bad that he had to cease reading. He struggled manfully with his malady, and in 1882 his condition began to improve, permitting him to form a plan to study the natural sciences. This might have steadied his restless thoughts, and inured him to a strict method of investigating knowledge. A man such as he, versed in Greek literature, music, and the history of the Renaissance, has the reputation of learning, and yet may be very ignorant.

Nietzsche himself recognised that at Basle ten years of life had fled, ten years when the nourishment of the mind had been suspended, where he had learned nothing useful, and had forgotten very much. "For some old ware of dusty learning, with my bad eyesight I crept tortoise-like amongst Greek versifiers. With pity I saw myself so meagre and emaciated. There were no realities in my budget of the sciences, and the idealities were worth nothing."

'Sickness changed my habits and entailed forgetfulness, repose, idleness, waiting, and patience. But that means thinking! I was released from 'books,' I read nothing for years, the greatest favour which I have ever accorded to myself. This undermost self, smothered and stilled by the continuous 'must listen' of other selves (and that is reading), slowly awakened, bashfully, doubtfully, and at last spoke again. I

had never so much happiness in myself as in the years of my greatest suffering from sickness and pain. *Morgenröthe* (*The Dawn*) and *Der Wanderer und seine Schatten* (*The Wanderer and his Shadow*) show that this 'return to myself' was the highest kind of recovery. The other followed upon it."

Unable to read, Nietzsche took to writing, and the procession of his published volumes forms a consecutive record of the changes in his beliefs and mental states. His natural bent inclined him to the problems of philosophy, and his material wants having been provided for, nothing hindered him in his course. For some men the restraint of circumstances, of other men's opinions, is salutary. Nietzsche's university environment had been on the whole both a restraint and a support; yet his self-conceit, naturally large, was swelled by the admiration of his students. There was now no one to check him. His only sister had married and gone to Paraguay. In his tastes and mental processes, in his whole nature, there was something eccentric and perverse; his thoughts did not seem to follow the same associations as other men's; they were vehemently pitched, and this divergence from normal mentalisation progressed in sharper and sharper curves. He cast off the religious faith in which he had been nurtured by his pious mother owing to intellectual difficulties. As he himself said, Christianity had lain upon him smooth and soft like a skin, and he had no difficulty in keeping its commandments.(3) For some years he entertained a deep reverence for two masters in philosophy and art, Schopenhauer and Wagner. In 1865 he adopted Schopenhauer's opinions with enthusiasm, but there was an ardour, a restlessness, a disintegrating force in Nietzsche's mind which soon made him throw off all authority, and disengage himself from all beliefs. His attitude became more and more belligerent. He himself said, "My mode of thought requires a warlike mind, a desire to give pain, a pleasure in saying No." He would not be ready to be burned for his opinions, he was not so sure about them; but he might, perhaps, have gone to the stake for the right of holding his opinions and the right of changing them. Though no man ever strained toleration more severely, Nietzsche met dissent from his own opinions with ill-humour. He well describes the devouring restlessness of his mind in the verses beginning, "Ja! ich weiss woher ich stamme!" (Yes, I know whence I arise: insatiate

like the flame, I glow and consume myself. Light is all that I produce, blackened ashes all I leave. Surely I am flame.)

Perhaps one source of the attraction which his writings have for some people consists in his scornful denunciations of the besetting weaknesses of the day. Whatever the explanation may be, Nietzsche's name is often quoted of late in periodical literature, and in Germany books have been written about or upon him. We are told, too, that he has a great and increasing influence among young men, especially among artists and literati. His admirers call him the greatest of recent German stylists. Several books have been written upon him in France, and we are told in the *Nuova Antologia* that his name is popular in Italy. A course of lectures has been delivered upon his works by Professor George Brandes, of Copenhagen, and several of his books have been translated into English, although the series remains uncompleted for want of support. The Nietzschians also have, or had, a special organ called *The Eagle and the Serpent*.(4)

Mr. Seth Pringle Patterson has found in Nietzsche "passages which in their lucid simplicity seem to reflect something of the serenity and purity of the mountains and the stars ; and when more rarely an elegiac note mood is touched the words fall with a haunting beauty of cadence."

Yet, in his well-known book on *Degeneration*, Max Nordau says, " From the first to the last page of Nietzsche's writings the careful reader seems to hear a madman with flashing eyes, wild gestures, and foaming mouth, spouting forth deafening bombast, and through it all now breaking out into frenzied laughter, now sputtering expressions of filthy abuse and invective, now skipping about in a giddy agile dance, and now bursting upon the auditors with threatening mien and clenched fists. So far as any meaning at all can be extracted from the endless stream of phrases, it shows as its fundamental elements a series of constantly reiterated delirious ideas, having their source in illusions of sense and diseased organic processes."

" It is essential," Nordau observes on another page, " to become habituated to Nietzsche's style. This, I admit, is unnecessary for the alienist. To him this sort of thing is well known and familiar. He frequently reads writings (it is true, as a rule, unprinted) of a similar order of thought and diction,

and he reads them, not for his pleasure, but that he may prescribe the confinement of the author in an asylum. The unprofessional reader, on the contrary, is easily confused by the tumult of phrases."

This denunciation is, in my opinion, too sweeping if applied to Nietzsche's earlier writings, in which the style is much soberer and the connections more rational. Though paradoxical, one can hardly describe them as the effusions of a wandering mind. Sometimes, too, there flashes out an idea both original and true, clothed in language quaint or droll.

[For further information as to Nietzsche's writings reference may be made to the two books of Henri Lichtenberger, *La Philosophie de Nietzsche*,(5) in which he gives an account of his life, and a *résumé* of his opinions; and *Friedrich Nietzsche: Aphorismes et Fragments choisis* (Paris, 1899), in which he gives in clear French out of cloudy German the best of Nietzsche's passages selected out of what may well be called refuse.]

Our task, however, is to consider Nietzsche as a case of mental pathology, and to trace the steps of the descending process to the *dénouement*. The first separate book which he gave to the world (at the end of 1871) was entitled *Die Geburt der Tragödie aus dem Geiste der Musik* (*The Birth of Tragedy from the Soul of Music*). In this work he brings out the correspondence which he had conceived between Æschylus and Wagner. The chorus played a most important part in the old Greek tragedies, which thus resembled operas, like those of the German composer, founded upon old legends more than ordinary dramas. Nietzsche thought that he had gained a conception of the character of the ancient Greeks through the few fragments of their literature. He caught glimpses of their joyous and natural life; but his own individuality was too intense to reflect the tone of bygone times, hence the book savoured strongly of paradox. Like most first efforts, it excited little attention save amongst the author's friends. Frau Förster-Nietzsche remarks that before its publication her brother had a good reputation, and had been offered appointments in Greifswald and in Dorpat; but after *The Birth of Tragedy* became known in philological circles there was a marked estrangement, a dull, painful silence, and no journal vouchsafed any notice of it. But Wagner and his wife were enthusiastic in their praises.

In the year 1873 Nietzsche attracted notice by a vehement

attack upon a contemporary literary celebrity under the title *David Strauss der Bekenner und Schriftsteller* (the avower and author), and later as *David Strauss and other Philistines.* Surely Nietzsche might have seen an ally in the author of *Das Leben Jesu* and of *Der alte und der neue Glaube;* but Strauss, though a foe of the Christian faith, was yet an optimist, so was Socrates, hence both the modern and the ancient philosophers were attacked by the pugnacious disciple of Schopenhauer. In quick succession there appeared under the title of *Unzeitmässige Betrachtungen* (*Unseasonable Considerations*) three more essays upon "The Use and Disadvantages of History for Life," "Schopenhauer as an Educator," and "Richard Wagner in Bayreuth."

In the skilful analysis which Nordau gives of Nietzsche's character there is one passage from which I must dissent, that "the real source of Nietzsche's doctrine is his sadism." "He is subject to erotomania, a veiled form of a psychopathia sexualis (*folie amoureuse chaste*)." The few passages culled from the mass of his writings do not in my opinion sufficiently support this theory, and from my study of Nietzsche's writings I have arrived at a quite contrary belief. Amativeness seems to have been decidedly weak in Nietzsche. He coldly writes, "The best friend will likely be the best wife, as a happy marriage rests upon the talent for friendship;" and "on entering upon marriage one should consider the question, Do you believe that you can continue to entertain yourself well even to old age in conversation with this woman? Everything else in marriage is transitory." Evidently Nietzsche had no idea of the sweet sympathy of a loving wife, far beyond mere friendship and conversation.

Lichtenberger writes, "His only passion was the search for truth. He was vexed that he never could rise to the passion of love; all inclinations towards a person of the other sex, however charming she might be, were merely the impressions of kindly and cordial friendship."

Frau Förster tells us that there were physicians who thought that the cause of his headaches lay in his chastity. "They urgently advised him to marry, but for a man of the refined feelings of my brother, who thought friendship the best thing in wedlock, that was a painful reason for marrying. To sexual intercourse in another way my brother was averse." His

friend Freiherr von Seydlitz wrote, "Where lives the man who could show a stain in him? His life was pure and clear like the water of a mountain brook."

Nietzsche's remarks about women are commonplace enough, and quite devoid of the affectation so common in European literature in treating of this subject, nor is there any trace of the unconscious gratification of the sensuous. Clearly he had none of Schopenhauer's alleged dislike to women, though he looked with disgust upon women clamouring for new rights, and those who seek to escape natural vocations in order to compete with men. He would have women remain in the place heretofore assigned to them, but neither oppressed nor depressed. In despite of his bitter and restless hatred of Christianity, Nietzsche was averse to women freethinkers, as something absolutely repugnant or ridiculous.

Nordau says that Nietzsche's sadism was confined to the intellectual sphere which is satisfied by ideal debauchery; but Nietzsche, though often arrogant, abusive, profane, is never obscene. It seems to us that Nordau was misled by the desire to label and classify a man who does not belong to a class, but who is a case *per se*.

He makes Zarathustra say, "Never have I found the woman from whom I should have wished to have children save that woman whom I love, for I love thee, O Eternity."

In the essay upon history, the soberest of Nietzsche's writings, he would curtail its study in education, holding that it has a benumbing effect upon the mind, weakening the plastic powers. As substitutes he proposes the study of the un-historical, of things nearer daily life; and of the over-historical, that is art and religion. He denounces the superficial and specialised character of modern education.

He derided the idea that history could be reduced to anything like a science. Its main use was to show great solitary men who hail one another across time and over the heads of crowded dwarfs. It never appeared to me, however, that your German doctors of philosophy were in danger of being crushed by the weight of their historical erudition, though they may be better versed in it than your English and Scottish M.A.s, which, indeed, is easy. One of the uses of history comes to the point. It shows that every age has its own peculiar errors, and that it is difficult to avoid being carried

away by the current. Thus history affords a shelter where we may take refuge from the tyranny of the present. As Castelar said, those who look upon life from one side, upon time from one age, the doctrines of one religion only, humanity from one people, will never understand the human mind. Nietzsche gained little from foreign travel, and esteemed the influence of professors and learning upon the life of the times to be much higher than it really is. If he had read something of history he never understood its wider applications. He saw himself and his own environment everywhere, as the gliding stream retains the images of the trees which grow by its margin. The struggle of incoherent ideas, the chaos of strange knowledge, arose from his own feelings. As Frau Andreas remarks,(6) "what he found within himself, that appeared to him a danger to the whole age, and later on rose to be a deadly peril for the whole human race which called on him to become their Redeemer and saviour."

In these early essays we find the beginning of two conceptions—the *genie-cultus*, or worship of genius, and the decadence theory, which play so large a part in Nietzsche's later speculations. Those whom he first delighted to honour were great philosophers, great teachers, or great artists. In *Menschliches Allzumenschliches* he says, "The man of genius differs from the mass less through the difference of his nature (Wesenverschiedenheit) than through the openness of his nature (Wesenenthüllung), through "a divine nakedness," a power of throwing off old habits, conventions, and callosities, and reacting to fresh impressions. "If the great thinker despises men, it is their indolence which he despises." Nietzsche recognises potential greatness in many, holding that a man only requires to relinquish his own ease in order to separate himself from the many. "Artists," he writes (*Menschliches*, 155), "have an interest in making men believe in sudden inspirations, as if the ideas of art, poetry, and philosophy flashed like gifts from heaven. The true artist or thinker is a great worker, and produces good, middling, and bad work; but his highly developed powers of judgment reject, select, and combine, as may be seen on comparing Beethoven's note-books with his finished works."

In another place he says, "Cease to speak only of gifts, of inborn talents. Great men may be moderately endowed with gifts, but they all have that earnest of thorough work which first

learns to form parts till they dare to produce a great whole." Then, again, "men greatly over-value everything which is immense and prominent; extreme natures attract far too much attention." These sentiments have nothing of the vitriolic scorn which, a few years later, Nietzsche poured upon human kind.

Menschliches Allzumenschliches: ein Buch für freie Geister (*Human, all too Human: a Book for Freethinkers*), was written at Sorrento in the company of Wagner and other German authors. It was published in 1877, that is before he gave up his chair at Basle. It is made up of a series of aphorisms and short essays on morals, religion, art, culture, woman and child, after the manner of La Bruyère or Rochefoucauld, and was dedicated to Voltaire. Nietzsche's hatred to Christianity is bitter. He admits that it had a cleansing action on the corrupt Roman world, though he says that it acted like poison upon the fresh Germanic peoples. The most amiable passage in the book is the following:—"The best way to begin each day is to consider whether we can give pleasure to one man at least. If this took the place of the usual religious exercises, humanity would reap advantage from the change."

In *Morgenröthe* he says, "Some think that the reality may be hateful; but do you not think that the recognition even of the most hateful reality is a fine thing? Plato and Aristotle agreed that the highest happiness lay in the activity of an intellect that both searches and finds." No man who has prayed to God as the great Father of all can renounce his belief without a sense of desolation. It was, therefore, with deep sadness that Nietzsche came to think his religious education was all wrong. The very violence of his denials betrayed the tumult in his mind. Frau Andreas emphatically says (7) that "Nietzsche must be the subject of a religious-psychological study to show bright side-lights on the significance of his life, to understand his sorrows and his self-worship. All the changes in his mind are referable to his lost faith—to the 'death of God,'—that profound emotion which vibrates to the last, and brought him to the threshold of delusion." Read the impressive outburst of feeling of the madman in the *Fröhliche Wissenschaft:*

"Where is God?" he cried; "I shall tell you. We have killed Him, you and I. We are His murderers! Do we not hear the gravediggers who are burying God? How shall we console ourselves, the murderers

of all murderers? Who will wash His blood from us? With what water can we cleanse ourselves? Must we not become gods ourselves in order to appear worthy? There was never a greater deed, and those born after us are thus elevated above their ancestors."

By this wild language Nietzsche indicates his belief that the belief in God was dead, and reckons the number of those in Europe who agreed with him at some twenty millions. There are, of course, no data for such an estimate, nor is the assumption correct that all who do not accept the Gospels are atheists.

We have seen that Nietzsche suffered from aggravated migraine, which is a functional disease not very liable to develop into deeper affections, and not of the ominous significance of epileptic seizures. It is often accompanied by great depression of spirits, as was the case with Nietzsche, but sometimes, though rarely, it is the prelude of insanity. One word is frequently reproduced in his writings (*Ekel*), disgust, generally repeated thrice. He viewed all things with a perpetual nausea, as a sufferer from sea-sickness regards food. "He that is giddy thinks the world turns round." His sense of smell was morbidly acute. He hated the smell of human beings, the stink of the rabble of shopkeepers; even superior persons did not smell sweet. He deemed it foolish to feel indignant against wickedness, since men are the tools of a blind necessity; but disgust replaced moral indignation in his mind, chiefly excited by hypocrisy, religious faith, and pity.

In 1882 his sufferings diminished, and he felt the glow of recovered health in the intervals of his attacks, and admitted that the world might be justified as an æsthetic phenomenon. Nietzsche now felt that life was worth living, so he parted with pessimism, as he had also parted from Wagner. He set up as an independent thinker and teacher, and volume after volume was given to the world. In time his extravagance and arrogance gained some followers. In the preface to the *Antichristian* he proclaims, with his huge self-conceit, that the book was written for the few. "The day after to-morrow belongs to me. These alone are my right readers, my predeterminate readers."

Unhappily he was losing the faculty of concentrated and sustained thought, his books assumed the form of broken aphorisms, sentences in which we can trace the associations of words or ideas unguided by sense or judgment, Pythian oracular phrases mixed with raving nonsense.

The Deists of the seventeenth and eighteenth centuries, with one exception, while attacking Christianity respected morals, and Mandeville, in his *Fable of the Bees*, was reasonable compared with Nietzsche's reckless diatribes. There is as much difference between the old Dutch physician and the retired German professor as between a thief who quietly enters your house to commandeer certain of your belongings and a madman who bursts in to destroy everything.

I am not sure that Darwinians will accept Nietzsche as the legitimate successor of Darwin. Two men more utterly unlike never lived. Darwin was well aware that what seemed good for man individually might not be good for man collectively, and that the only way to raise the human type was to raise the whole level of humanity.

In one of his early writings, the first *Unseasonable Considerations*, Nietzsche pushed the logical consequences of the survival of the fittest against the humanistic views of Strauss; but later on he recklessly declared Darwin an estimable though mediocre Englishman, who had promulgated an incredibly one-sided theory of the struggle for existence,[8] whose "ancestors were poor and humble persons who were only too familiar with the difficulty of making both ends meet. Around the whole of English Darwinism there floats, as it were, the mephitic vapour of English over-population, the odour of humble life, of pinched and straitened circumstances."

Frau Andreas tells us that as late as the year 1879 Nietzsche had a great admiration for English philosophers, but towards the end of his career Nietzsche "hated unsympathetic England with his whole soul." He found no readers for his crazy books in Great Britain. His estimate of the eminence of a nation in philosophy, in fact, depended upon the notice they took of Nietzsche.

In 1874 Nietzsche met a young German doctor of philosophy named Paul Rée, who presented him with his *Psychologische Beobachtungen*, in which he had expressed doubts as to the soundness of morality, whether bad was not good and good bad. Rée accompanied Nietzsche to Italy and produced *Der Ursprung der moralischen Empfindungen* (*The Origin of Moral Sentiments*). Frau Förster denies that Rée was her brother's leader in his anti-moral speculations, "as if a little bird should lift an eagle high in the air;" yet the similarity of the views

in Rée's book and in *Menschliches Allzumenschliches* is very marked. Nietzsche's originality consisted in turning everything upside down. Frau Andreas quotes Nietzsche's words, "There are two kinds of genius; one which is creative, and another which is ready to be impregnated and to bear fruit." No doubt, she adds, he belongs to the last class, for there was something of the feminine in his spiritual nature.

Morgenröthe: Gedanken über die moralischen Vortheile (*The Dawn: Thoughts on Moral Prejudices*), was written at Genoa, during the first years of his wandering life, in the intervals of relief from pain. In the preface to a new edition the author boasts that he had begun to undermine the foundations of morality, and in the domain of ethics Nietzsche found a field for his mischievous aggressiveness. His ideas on this subject are given in his last three works, *Jenseits von Gut und Böse* (*Beyond Good and Evil*), published in 1886; *Zur Genealogie der Moral* (*The Genealogy of Morals*), 1887; and *Götzendämmerung* (*The Twilight of the Idols*), 1889.

Also sprach Zarathustra (*Thus spake Z., i.e.* Zoroaster) is regarded by Nietzsche's admirers as his most important work. One of them has called it the greatest poem which Germany has produced since the time of Schiller. It consists of four parts, which came out separately in 1883 and 1884—so many leaves or chapters, with little or no apparent connection with one another. Much of the text is in the form of aphorisms or oracular speeches. The author uses a great variety of words, piling synonym upon synonym, and phrase upon phrase. Now and then there is a pithy remark, which anon is spoiled by some bombast or nonsense tagged on to it. The reader will find some of the most incoherent passages from *Zarathustra* in Nordau's book on *Degeneration*. In Nietzsche's later works a want of measure and a want of taste pervade all his pages; often we can find nothing but a clatter of words. Though it has gone through at least three editions, *Also sprach Zarathustra* is to me a most tiresome book. It thus begins:

When Zarathustra was thirty years old he left his home and the lake by his home, and went into the mountains. Here he remained in the enjoyment of his mind and his solitude, and for ten years was not weary. At last his heart changed, and one morning he got up with the dawn, and, standing before the sun, thus spoke:

"Thou great star, thou wouldst be ill off if thou hadst not something

to shine upon. For ten years thou cam'st to my cave, and wouldst have been tired of thy light and thy way without me and my eagle and my serpent. But we waited upon thee every morning, partook of thy overflow, and blessed thee therefor. See, I am over-burdened with my wisdom, like the bee who has collected too much honey. I need hands stretched out to me."

Now and then his eagle and his serpent make philosophical remarks to Zarathustra in the style of their master; and, indeed, in all the conversations all the speakers use the same abrupt, cynical forms of expression as Zarathustra himself. Whoever contradicts is soon put down. Zarathustra at last descends from his mountain and falls in with an old hermit, who makes songs and sings them, and laughs, weeps, and mutters, and so praises God; on which Zarathustra asks, "Can it be possible this old saint has never heard that God is dead?"

He then makes his way to a town to deliver himself of his load of wisdom, and to teach about the overman. "Man is something that should be surpassed. What have you done to surpass him?"

"All beings have done something beyond themselves, and you would be the ebb of this great flow, and rather fall back to the beast than overpass men. What is the monkey to man? An object of laughter and scorn. Even so will man be for the overman—an object of laughter or scorn. You have traversed the way from the worm to man, and there is still much of the worm in you. Once you were monkeys; now has man more of the monkey than any monkey."

Zarathustra goes on to preach the gospel of the overman, whom he defines to be the thought (Sinn) of the earth:

"I entreat you, my brothers, remain true to the earth, and do not believe those who speak of hopes beyond the earth. They are mixers of poisons, whether they know it or not. They are despisers of life, dying men, poisoners of themselves, of whom the earth is weary."

And so on, through tedious, incredible, and repulsive scenes, unilluminated by a single spark of grace or humour, until he retires with his followers with his eagle and serpent.

One morning Zarathustra, springing from his couch like a madman, cried out with a fearful voice:

"Mount, abysmal thoughts, from my depth. I am your cock and morning horror. Up, up, drowsy worm! My voice ought to crow you awake. Unloose the fetters from your ears—hark!—then I shall hear you. Up, up! here is thunder for the grave. Wash away sleep and everything stupid and blind from your eyes. Hear me also with your eyes. My voice is a remedy for the born blind, and if you be once awake you will always remain awake for me. It is not my wont to waken up great-grandmother, and then to tell her to fall asleep again. You rouse yourself, stretch yourself; gurgle. Up, up! Do not gurgle, but speak to me. Zarathustra, the godless, calls to you. I, Zarathustra, the advocate of life, the pleader of suffering, the pleader of the circle—I call you my deepest thought. Hail to me! Thou comest; I hear thee. My abyss speaks. My last depth have I turned up to

light. Hail to me! Forward! Give thy hand. Let go! Ha, ha! —disgust, disgust, disgust! Woe to me!"

And woe to his readers! we may add.

Scarcely had Zarathustra spoken these words, when he fell down like a dead man, and remained long as if dead. And when he came to himself he was pale, trembled, lay prostrate, and would neither eat nor drink for seven days. Then he found his bed covered with grapes and other delicacies, and at his feet two lambs which his eagle had torn from the shepherds.

Later on the hairs of the sage have whitened, his wisdom brings to his cave an interesting circle of "superior men" out of employment, one retired pope, two retired kings with their traps upon a donkey, an old magician, the ugliest of men, the shadow, the voluntary beggar, and the man of scrupulous mind who has devoted his life to the study of the brain of the leech. These gentlemen take up their abode in the cave with Zarathustra, though he sometimes treats them cavalierly and lectures them unmercifully. Forgetting the peculiarities of their host, they indiscreetly indulge in a little distraction of their own, which is thus related:

Zarathustra's ear was suddenly startled. . . . His nose sniffed a fragrant odour, and he stole from his cave to observe:

"They have all again become pious; they are praying. They are mad! The two kings, the retired pope, the wicked wizard, the voluntary beggar, the wanderer and shadow, the old soothsayer, the scientist, and the ugliest man—all upon their knees worshipped the ass in a rare pious litany.

"Amen! And glory, and honour, and wisdom, and thanks, and praise, and strength be to our God from eternity to eternity."

To this the ass cried, "I—a!"

"He bears our loads, he took on himself the form of a servant, he is patient of heart and speaks not; and he who loves his God chastises him."

But to this the ass cried, "I—a!"

"He speaks not to the world which he created. He always says *Yes*. Thus he glorifies his work. It is out of his cunning that he does not speak, so he is seldom in the wrong."

To this the ass cried, "I—a!" etc. etc.

At last Zarathustra could no longer restrain himself. He sprang amongst his guests, plucked them up from their knees, and remonstrated with them for their stupidity. In the end the ugliest man says, "Once I learned from thee, O Zarathustra, that he laughs who will kill outright. Not with rage, but with laughter is murder done. So spoke you once, O Zarathustra;—you hidden one, you destroyer without anger, you dangerous saint. You are a rogue."

And thus Nietzsche flattered himself that he had slain religion with his subtle wit, and gravely compares himself with Voltaire. Here is something tasteful from the German Voltaire :

"I say to you, To the swine is everything swinish, for all are of an unclean spirit, who have neither quiet nor rest, and see the world from behind. To them I say, although it does not sound well, 'The world is like to men in having a hinder part; so much is true. In the world there is much filth; so much is true. But the world, for all that, is no filthy monster.' Here is wisdom: Much in the world smells badly; disgust makes wings for itself. In the best there is still something of disgust; and the best has still something which must be overcome. Oh, my brothers, there is much wisdom in this: there is much filth in the world."

Here is an attempt at an amatory passage which, for an author accused of erotomania, is pretty flat :

One evening Zarathustra came upon some girls who were dancing with one another in the forest, and said, "Do not stop dancing, you lovely maidens. No spoiler of play—no girls' enemy—has come to you with evil eye. I am God's advocate before the devil; he is the spirit of heaviness. How should I be an enemy of godlike dances or of girls' feet with fine ankles? It is true I am a forest and a night of dark trees; but he who sees into my gloom finds clusters of roses under my cypresses, and he will find a little god that is dearest to girls lying beside the fountain with shut eyes. Do not be angry, beautiful dancers, if I slightly chastise the little god."

And so Cupid, after being whipped—where and how is not mentioned,—dances with the girls, and Zarathustra prints his song, which is neither rhyme nor reason.

Lichtenberger tells us that the poem of Zarathustra was never completed. The author purposed that the philosopher should perform a grand act of effacement in giving birth to the overman. We are not surprised to learn that Nietzsche found difficulties in this parturition. From 1882 to 1886 he sketched five plans for the *dénouement*, but was not satisfied with any of them. In the last, Z. ascends the mountains and blesses the tombs, the isles, and the caves. It seems as if his face reddened slightly (perhaps a faint blush); then he shook his head (well he might), voluntarily shut his eyes, and died. And so ended Zarathustra the insufferable.

Although Nietzsche had a few leading ideas, he could not be said to have had a system of morals worked out by induction or deduction. As for assigning plausible reasons for what

he arrogantly asserted, he had got far beyond that, and many inconsistencies start up in the same books and even in the same page. In the *Menschliches* he accepts the morality of the day, which later on he stigmatises as injurious to the loftiest types of humanity.

He was very proud of what he called the inversion of moral values, in which the old virtues were turned topsy-turvy. The first men who dictated a moral code were warriors and conquerors; with them good and right meant strength, courage, and severity. Evil meant weakness, meanness, and cowardice. The vanquished looked upon these qualities from a different point of view. With the same ignorance which he displayed as regards Darwin, Nietzsche said that the Jews first constructed a "slave morality," in which the cardinal virtues were humility, pity, forgiveness of injuries, and patience; while the worst vices were pride, violence, and cruelty.

Christianity, he assures us, was an invention of the Jews, a subtle attack upon the "master morality" of the Romans. "Jesus of Nazareth," he writes, "was the embodied gospel of love, the redeemer bringing blessedness and victory to the poor, the sick, and the sinful; was he not the cause of the Jewish change of moral values and renewal of ideals? Has not Israel by the roundabout way of this redeemer, this seeming adversary and destroyer of Israel, actually reached the final goal of its sublime quest for revenge?"

Nietzsche based these doctrines upon frail speculations on the derivation of the oldest words for good and bad, and upon a transparently false rendering of history. The doctrines of submission, charity, pity, and renunciation had been preached six hundred years before the Christian era by the founder of Buddhism, who was not a slave, but the son of a king. Of this as an historical fact Nietzsche was well aware; but, like a man in a dream, his mind was not startled by incongruities. As the maniac vents his wrath in violent words and threats, Nietzsche delighted in hurling obnoxious opinions at men and in contradicting their fondest beliefs in the most provocative terms. He boastingly calls himself Nietzsche the Godless and N. the Immoralist, and at last arrived at the formula of the Assassins: "Nothing is true, all is permitted"—save mercy to the weak. His chief commandment was "Be hard, suppress pity." "The criminal type," he wrote, "is the type of the strong

man under favourable conditions, whose virtues are condemned by society." Nevertheless we know that the habitual criminal is not so strong as the normal members of society.

For what he believed to be the truth Nietzsche had professed a steadfast devotion; for the right of proclaiming it he had given up the faith of his fathers, his belief in God, the hope of a future life, the good-will of many friends, and the common morality of the world. At last he came to doubt whether truth itself was of any value. "The falsehood of an opinion," he wrote, "is no objection to it. The question is, how far does it uphold life? It is possible that a higher value may be true. It is even possible that a higher value may be assigned to appearances, to the will to deceive, than to what is true. It is even possible that the worth of a good and honoured thing may consist in its being entangled or hooked on to something bad. It is the power of sustaining a lie which lifts the artist high above the scientific man and his search for truth."

In *The Birth of Tragedy* (1872) Socrates was denounced as the prime factor in the decadence of the Greeks. It was he who by his perplexing questions spoiled the simple heroic life of Hellas. Formerly the Greeks followed their instincts, did what they had a mind to, which of course was right; whereas Socrates introduced a taste for dialectics, and caused them to reflect upon what they were doing, which was wrong. He introduced a bad system of philosophy which has come down to our own times. In *The Wanderer and his Shadow*, written seven years later, Socrates had come into great favour. To Socrates led all the streets of the diverse philosophies.

Nine years elapsed before Socrates was detected as a monster, a decadent, a typical criminal. He came of the lowest people, he was vulgar, he was a merry-andrew. He was very ugly, perhaps he was not wholly of Greek descent. Socrates and Plato were false Greeks, anti-Greeks. The Socratic morality, like the Christian morality, was a "misunderstanding," so after all Melitus and Anytus were right, and Xenophon was a fool.

Richard Wagner had enjoyed the unstinted admiration of Nietzsche at Lucerne as the tone-poet who was to restore the old Greek drama, as Nietzsche was to be the philosopher of the new era. But in 1876 Nietzsche suddenly discerned that the real Wagner was not his ideal, but in truth a rotten, despairing *decadent*, suddenly sunk, helpless, and broken down

before the Christian cross. This "frightful spectacle" filled him with disgust. Thereafter Wagner would not allow Nietzsche's name to be mentioned in his presence, and Nietzsche shed tears by the Lake of Lucerne when he recalled the happy days of their former friendship.

For democracy, socialism, the happiness of the greatest number, Nietzsche had an ostentatious scorn. He proclaimed that the mass of the people should be kept in slavery. Mankind was a mere passing stage in the ascent of evolution. Their function was to generate the undefined "Uebermensch." This "overman" was but the delusive conception of a delirious brain, in turns an artist, a composer, a philosopher, and lawgiver, in the end a warrior, strong as brave and pitiless as strong, a blond beast of prey, obeying all his instincts, and trampling on the rest of mankind, without the restraints of mercy and justice. As prototypes of the overman Nietzsche instanced Cæsar Borgia and Napoleon Bonaparte, laying approving stress on the worst qualities of the Corsican. It was at once the duty and the destiny of humanity to sacrifice itself to half a dozen of this new species of great man, and Nietzsche himself proclaimed the duty of self-abnegation to make way for the overman as his simian ancestors had made way for the human species. To the woman he says, "Let it be your hope to give birth to the overman." "All the gods are dead, we now wish that the overman should live." Yes, but the religious sentiment still lived and fell down before the image of the overman. Nietzsche came at last to worship this hideous creation of his own fancy, as the triumphant being who was to put his foot on the neck of mankind.

A weird fancy, appearing as a paradox in the *Fröhliche Wissenschaft*, is a serious truth in the third part of *Zarathustra*, where the snake and the eagle address him as the teacher of the eternal return. "We know you teach that all things will return during eternity, and we ourselves with them, and that we and all things with us have already lived countless times before. Souls are mortal like bodies, but the mesh of causes in which we are entangled will again return; you will come again with this sun, with the earth, with this eagle, with this snake, not to a new life or to a better life, but to the very same life in every particular, great and small." This dream of the old Indian mythologies belongs to the infancy of philoso-

phy when imagination was the leader of reason, but it became a dominant idea in Nietzsche's mind. He thus sought to prove his myth :—"The forces which sustain the universe are fixed and determinate. In the infinity of time it must happen that the same combinations will be repeated and inevitably bring each old series of events and every past life." But space is infinite as well as time, and though the play of forces may go on for ever, they will never bring about the same combinations.

In the *Anti-Christian*, his last finished work (1888), Nietzsche gives vent to his hatred of Christianity without either argument or measure.

"It is not respectable to be a Christian. Christianity is the worst kind of corruption; it means the neglect of common sense, gratitude, and regard for the public weal. Christianity and alcohol are the two grand agents of corruption. Christianity is the worm which comes in mist and darkness to destroy the desire for truth, the instinct of love for reality. This cowardly, effeminate, sugary-sweet partly estranged the souls of the ancient world, and led to the downfall of its civilisation. Christianity was the vampire of the Roman empire."

And when writing of the Renaissance:

"Cæsar Borgia as Pope. With that Christianity was abrogated. What happened? A German monk, Luther, came to Rome. This monk, with all the revengeful instincts of an unsuccessful priest, mutinied against the Renaissance. Christianity sat no more upon the papal throne, but life took its place, the triumph of life, the great yea to all that was high, beautiful, and daring. Luther lifted up the Church anew; he attacked the Renaissance senselessly, in mere wantonness."

What a vicious jumble of history and nonsense have we here! Cæsar Borgia never was Pope; after getting his brother murdered he threw off the habit of an ecclesiastic, and became the armed tyrant of the papal states. On the death of his father, Alexander VI, he was chased out of Italy, and perished in Navarre, ten years before Luther broke with Leo X. It was the Renaissance that lighted the way to the Reformation.

And again:

"I shall write this eternal impeachment of Christianity upon all walls. I call Christianity the one great curse, the one great inmost depravity, the one great instinct of revenge, to which no means are venomous, stealthy, underground, petty enough. I call it the one lasting stain on humanity."

To criticise such notions would be like drawing the sword

upon a stillborn infant. Man rose above other creatures, not by obeying his instincts, but by subjecting them to his reason, by regulating and restraining them. Men became the lords of creation, not by warring on their kind, but by gathering together to act for common objects by collective help and mutual trust ; and this mad speculator would make it the duty of mankind to resign themselves to be effaced by a new being, who should go back to the brutes, as if it were the duty of any creature to yield without a struggle in the battle of the survival of the fittest. Civilisation does not make men weak and tame as Nietzsche asserted, but by teaching them to concentrate and direct their powers it multiplies their strength a hundredfold, as a charge within the tube of a cannon will carry destruction for miles, while if exploded in the ground its effects would be exhausted within a few yards.

Lichtenberger tells us that Nietzsche appeared to himself as both the destroyer and the continuator of the work of Jesus. Like him he had known solitude and suffering, and the hatred of the good and just, and like him he is a fatality for innumerable generations to come. Through him Christianity should perish by self-effacement in giving place to something superior. During the last weeks of his conscious life this ideal relationship which he fancied between Jesus and himself presented itself to his mind with a clearness that was always increasing. There was produced in him, under the influence of morbid causes no doubt, an exaltation of his whole being. He felt himself happy, light, soaring into infinite heights above life and men. He believed his creative thought to be all-powerful, and announced that in two years all the earth would writhe in convulsions. Across the ages he stretched his hand to Jesus, whose work he completes in destroying it. He gives the title of *Ecce Homo* to his autobiography written during the autumn of 1888 ; and at the moment when the abyss of madness opened suddenly before him he signed his last letter to Brandes "The Crucified One."

As we have seen, Nietzsche passed from sanity to insanity by transitional stages. His derangement was of slow growth, though the bounds of external restraint may have abruptly given way so that his madness became manifest even to the ignorant. Nietzsche led a wandering life, with no one to observe his doings. His letters to his sister in Paraguay were

full of heart-rending complaints against the want of love, the universal ingratitude and the vileness of mankind (whom he ostentatiously pretended to despise). After the death of her husband Frau Förster found amongst his papers a letter in which Nietzsche accused him of writing a criticism against him, and getting it published anonymously in an anti-Semitic paper, and of having poisoned the mind of his sister against him. He added, "I am taking hypnotic upon hypnotic, but cannot get sleep. To-day I shall take so much that I will lose my understanding." His sister attributes his insanity to attacks in the public press, to the strain of overwork, and to the excessive use of chloral. He never used opium. The sleeplessness was probably due to arterial degeneration, which must have been going on in the brain. Of his private conduct or nervous symptoms during those years we have no precise information.(9) We know that he parted or broke with most of his old friends, and that some may have shunned him owing to the extravagance of his opinions. In 1887 he writes to his sister, "Life becomes heavier from year to year. The saddest and the most painful did not seem to me so dismal, so void of hope, as my present existence. What has happened? Nothing but the inevitable. The differences which separate me from all the men who had given me their confidence are patent, and from one side and the other one notices that he is despised. Oh, heavens! how solitary I am to-day! I have no one with whom I can laugh, no one to drink a cup of tea with, no one who will give me friendly consolation." In 1888 he writes, "During ten years no one in Germany has made it a conscientious duty to defend my name against the absurd conspiracy of silence under which it is buried." This is a not uncommon delusion with authors who believe that nothing short of a plot is capable of keeping their books from bursting into celebrity.

What was apparently Nietzsche's first open attack of insanity is described by Frau Förster in a paper entitled "Die Krankheit Friedrichs Nietzsche" in the *Zukunft* of 6th January, 1900. In Turin, about the end of December, 1888, he fell down at the gate of the house where he was living, and had not the power to rise up without assistance. Thereafter he lay on the sofa for two days motionless, without saying a word. On coming out of this lethargy he spoke to himself in a loud voice, sang and played much and noisily, and showed that he had lost the

proper knowledge of money, paying for trifles with twenty-franc pieces. He covered some sheets with writing, full of strange fancies, mixing up the characters in the Greek mythologies with personages in the Gospel and of our own time. He accused some of his nearest friends of injuring him. He fancied that God, torn to pieces by His enemies, was wandering by the banks of the Po. During this time he signed his letters *Dionysos*, or *Der Gekreuzigte*. One of these letters having reached Professor Overbeck, in Basle, he travelled to Turin in the first week of January, and finding his friend quite insane he took him to Basle, from which he was soon removed to the private asylum of Dr. Binswanger at Jena, where he remained for sixteen months.

After this his mother took him to her house at Naumburg, where he was affectionately tended by her and his sister, now a widow. On the mother's death, Frau Förster took him to a house at Weimar. The first excitement calmed down within a year, but the hopes of recovery, kept up by occasional rallying, were dashed by repeated paralytic attacks (Schlaganfälle). Frau Förster tells us that the physicians styled his malady an atypic form of paralysis (eine atypische Form der Paralyse). There seems to have been some degree of aphasia, and it was difficult to say in the end how much intelligence was left. Lichtenberger came from Nancy to see him, and stayed a week. "Perhaps," says his admirer and commentator, "here he has preserved a vague memory of his life of thinker and poet. 'Have I not myself written good books?' said he when they put into his hand a new book. At any rate, he is conscious of the affection with which his sister surrounds him; he follows her with his eyes as she comes and goes, and it is touching to see when she comes to sit beside his couch the awkward and slow action with which he manages to take the hand of that sister, formerly the confidante of his youth, now the last consoler of his years of decline."

He who had scorned mankind had sunk to the lowest; he who had told men to banish pity from their hearts had now in his helplessness to depend on the pity of others while he lay in a state of death-in-life. And yet his mischievous writings are scattering the germs of moral evil wherever they light upon a fitting soil.

While this paper was being completed Friedrich Nietzsche

died, on the 25th of August, 1900. According to a correspondent of the *Kölnische Zeitung*, who was with him at the last, he succumbed to an attack of cerebral hæmorrhage, which had supervened twenty-four hours before. The tender care of his sister had tided him over a similar seizure about three months earlier.

From the obituary notices in the principal French, German, and English newspapers it appears that Nietzsche's views were known at least to journalists. A writer in the *Berliner Tageblatt*, who went to Weimar to see what remained of Nietzsche after eleven years' insanity, compares him with Goethe and Bismarck. He was buried in the resting-place of his fathers, near Lützen. The pastor was absent; a layman pronounced the funeral oration. Nietzsche has left a number of manuscripts, the publication of which is threatened, though his works already form eight volumes.

His admirers remark that the personal character of Nietzsche is an important part of his philosophy; but his writings are only serviceable to indicate his mental aberration. As a contribution to psychology they are worth nothing. He never proves anything, never indeed tries to prove anything, but contents himself with arrogant and absurd assertions. "My judgment," writes he, "is my judgment, and to this another man has scarcely any right" (*Jenseits von Gut und Böse*, p. 43). Nevertheless he often changes his opinions. The devil himself would not have Nietzsche for an advocate. There is a progressive wildness, a deepening lack of restraint, a swelling conceit in each successive publication.([10])

Frau Andreas thus describes this literary anarchist's appearance during the period between 1879 and 1889, when his stormy writings were given to the world:—"He is a man of middle size, plain but neat in his dress. His large forehead was rendered the more prominent by smooth brown hair brushed backwards. The region of the head in front of the ear is large in proportion to the occipital portion. The lips are covered by a thick moustache. In his physiognomy there is an air of reticence, aloofness, strangeness. He has a quiet laugh, a noiseless way of speaking, and a heedful, meditative gait with a slight stoop. He has finely formed hands, of which he is proud." M. E. Schuré, who saw Nietzsche at the first representations of the "Niebelungen Ring" at Bayreuth, in 1876,

describes him in much the same terms:([11])—"The thick hanging moustache and the bold profile might have given him the air of a cavalry officer had it not been for something at once timid and haughty in his approach. The musical voice and slow speech denoted his artistic organisation, and his wary and thoughtful gait showed the philosopher. Nothing was more deceptive than the apparent calm of his expression; the fixed eye betrayed the painful working of his thoughts. It was at once the eye of an acute observer and of a fanatic visionary. This gave him something unquiet and disquieting, especially as his looks seemed always fixed upon one point. In moments of excitement his looks softened, soon again to appear hostile." The expression in all the portraits given of Nietzsche is fierce and aggressive. We reproduce one, and readers may judge it for themselves. One of the portraits given by Frau Andreas, a full-front one, seems to me an evil face.

Frau Andreas lets us know, what would scarcely be expected from his writings, that Nietzsche was distinguished by a great politeness and almost feminine gentleness of demeanour. To use her own expression, he habitually wore a mask and mantle to cover an inner life scarcely ever revealed. He himself writes in the *Ecce Homo*, "To suffer from solitude is an inferiority. I have never suffered save from the crowd. At seven years, an age absurdly tender, I already knew that never a word of man would reach me. Have they ever seen me afflicted by it? Even to-day I have for all the same affability, I am full of deference for the most humble, and in all my bearing there is not an atom of pride nor of secret scorn." Yet he inconsistently and characteristically adds, "He whom I despise guesses that he is despised by me; with my simple presence I put out of sorts anyone who has vitiated blood in his veins!"

In another place Frau Andreas tells us "wherever he speaks of lord and slave natures one must be mindful that he speaks of himself." Driven by the longing of a suffering and unharmonious nature to its opposite, and moved by the desire to look upon such a one as his god, he portrays his own self when he says of the slave, "His mind loves hiding-places, secret paths, and back doors; all that is covered he relishes as his own world, his security and his recreation; and in the practical, joyous, simple lord nature of the original men of action he describes his opposite." It is common enough for men to see their ideal

in a character opposed in every respect to their own. We have, for example, Thomas Carlyle, greedy of talk, lavish of words, a sceptic in most things, a man who never acted, and who was always fretting and grumbling about trifles, who took for his heroes men of deeds, rough and unscrupulous, of strong convictions but fonder of using blows than words.

The unfortunate Nietzsche was born with an hereditary tendency to an abnormal mental action; in infancy he was backward; in childhood he was shy and solitary; in youth he took no pleasure in the sports and amusements of young men, but was quick at book learning and literary aptitude, with a love of straying away from beaten paths. A careful education by a good mother helped to keep down his lower propensities, and the early dignity of a responsible position and academic surroundings made him give hostages to good behaviour. But he soon showed an irrepressible combativeness and an excessive self-conceit. The connection of the nervous sufferings with the mental derangement is not clear, but no doubt these sufferings exasperated his mind, and increased his discontent with life. Few men, and only the best kind of men, are made better by sickness.

His was the condition described as *grübelsucht, folie de doute*, the anguish of doubts. Talking of the mental changes which lay behind him, Nietzsche once said to Frau Andreas, half in jest, "Yes, the course has begun, and will go on, but whither? When all has been run through, whence will one start? When all possible complications are exhausted what will follow? How? Must one not again arrive at faith, perhaps at a Catholic faith? In any case a circle is more likely than a standing still."

The restless working of his intellect was always accompanied by exaltation of the affective faculties; the power of correct reasoning slowly decayed, and the bonds of restraint became weaker. His aggressiveness and egotism became more and more prominent. With no pole-star to guide him he was insensibly drifted by the current of the desires and longings which he fancied were suppressed, and so it came round that in place of the aspiration for a future life he accepted "the eternal return of all things," and in place of the religious sentiment he put the worship of that monstrous fantasy of his own mind, the overman. The peculiarity of Nietzsche's

insanity seems to have been that while he long retained sufficient powers of self-restraint to refrain from breaking through outward rules of conduct within his limited sphere of intercourse with other men, he gratified his extravagant propensities by writing reckless and provocative books against the beliefs which were most cherished by those amongst whom he dwelt. To use his own expression, he philosophised with a hammer. As Byron said of J. J. Rousseau,

> "But he was frenzied by disease or woe
> To that worst pitch of all which takes a reasoning show."

We might inquire why books like those of Nietzsche, which might be expected to shock even a not over-fastidious taste, should be so far relished as to pass through several editions, and to become the subject of commentary, of apology, and even of praise. No doubt there are literary *chiffonniers* who, seeing that the public *will* have carrion to feed on, are eager to serve it up, and ready to disguise too rank a taste by their own culinary arts; but they generally wait for some signs of a morbid appetite before they fetch such wares to market. We are living in a time of great decline of literary taste. Something is due to the overpowering momentum of the many who now amuse themselves with reading. There are people leading outwardly decent lives who indulge in literary licence, gratify the sensuous cravings in their nature by gloating over coarse descriptions, and read filthy books for their filth. Apparently there is also a demand somewhere for philosophical profanity and speculative immorality.

(1) Olla Hansson's *Friedrich Nietzsche*, quoted by Dr. Hermann Türck in his pamphlet, *Fr. Nietzsche und seine philosophischen Irrwege*, Jena and Leipzig, 1891. The author has made a careful study of Nietzsche's writings, and his criticisms are judicious and well put. He furnishes no fresh medical details. His knowledge of insanity seems mainly derived from the *Handbook* of Schüle. —(2) *Das Leben Friedrich Nietzsche*, von Elisabeth Förster-Nietzsche, Leipzig, 1895.—(3) *Friedrich Nietzsche in seinen Werken*, von Lou Andreas Salomé, Vienna, 1894.—(4) *Andreas Salomé*, p. 48.—(5) See the number of March 16th, 1900, *Le Idee sur l' Arte di Frederigo Nietzsche*, di E. A. Butti.—(6) *Blackwood's Magazine*, vol. clxii, 1897, and *Contemporary Review*, 1898.—(7) This book has been translated into German by Elizabeth Förster-Nietzsche (Dresden and Leipzig, 1899). Frau Förster has added a preface of sixty-nine pages, giving some farther information about her brother's studies and the growth of his opinions.—(8) *Friedrich Nietzsche der Künstler und der Denker*, ein Essay von Alois Riehl, Stuttgart, 1898. This is an able critical review of Nietzsche's life and opinions.—(9) Op. cit., p. 65.—(10) Op. cit., pp. 38-9.—(11) *Die fröhliche Wissenschaft*, p. 273, published in 1882.—(12) Dr. Türck has a story that, while staying at Sils Maria, in the Engadine, Nietzsche used to sit and meditate on a tongue of land which ran into the lake. Returning one spring to his beloved mountain solitude, he found that a

bench had been erected on the spot for the convenience of visitors. He turned away, never again to put his foot on the spot. My friend Dr. W. R. Huggard, who is a resident physician at Davos-Platz, caused inquiry to be made about Nietzsche at the time of his death. He writes to me, "Very little appears to be known here as to his residence in Sils Maria. He seems to have passed a very quiet life there without making his crankiness conspicuous to the world."—([12]) Professor Theobald Ziegler, of Strasburg, who had pored through Nietzsche's works line by line in chronological order, finds the first signs of insanity in *Zarathustra* (written and published in 1883). In all the subsequent works he finds much of what is over-strung, distorted, coarse, and glaring, the loud and shrieking, in increasing intensity.—([11]) In *Revue des deux Mondes*, August 15th, 1895.

The Treatment of Tuberculosis in Asylums.([1]) By LIONEL A. WEATHERLY, M.D.

DR. WEATHERLY, in introducing a discussion upon the above subject, said its gravity would perhaps appear to them greater when they were told that in one town of England, such as Liverpool during last year, every time the clock hand went round and indicated that another four hours of time had gone by, a life was passing away in that town from consumption; when they further were told that in that one town of Liverpool more young people died of consumption in 1899 than had up to the present been killed in South Africa during the present war. The great thing, however, for them to think of to-day was, "Is there any need to do anything with regard to phthisis in our asylums?" Once they accepted that there was; then came the question, "What was best to be done?" The premiss upon which he should like to start the discussion that day, was a sentence uttered in London a short time since in a most able speech by Sir James Crichton Browne, in a discussion which took place following the paper by Dr. France. He said, "Phthisis is prevalent, and is the cause of death in our public asylums in this country to an unnecessary extent," and he went on to say that "it was to a very considerable degree generated and propagated in them." It was known that young healthy people with possibly a predisposition to phthisis entered asylums, became phthisical patients, and propagated disease far and wide. The first question asked would naturally be, "Why is this?" This brought them, to his mind, to the most difficult position in which they found themselves. Personally he did not think there could be any doubt that what

Dr. Cruikshank in his prize essay said was absolutely true, viz. that it was due first and foremost to overcrowding; secondly, to lack of sufficient exercise and pure air; and thirdly, to a certain quality of dietary. These were the three reasons he brought forward, and which were very much emphasised by Sir James Crichton Browne. With regard to overcrowding, he thought the modern tendency of piling building on to building at their big asylums was one that ought to be very greatly deprecated. With regard to the lack of exercise and pure air, one had no doubt always felt there were difficulties in the way. It seemed to him that every patient should be made to live during the greater part of the year a great deal more out of doors than was the case at present. This was more especially necessary in the case of women, among whom they found phthisis much more prevalent than among men. Those who were not strong enough to take exercise might have shelters made for them in which they could lie or sit. Another question was whether or not a definite rule might be made in all asylums that during certain periods of the day every single inmate of the ward or corridor should be taken out of those corridors or wards, and a free draught of fresh air with open windows be allowed to circulate through every part of it. He believed there was nothing so good as a direct ventilation of pure air through the windows of their wards; but he was persuaded that the greatest thing for them to discover in England was how to get efficient direct ventilation without draught. He saw no reason why the windows of all asylums should not be made with the bottom part to open outwards or inwards, as a French window, whilst the upper part was a flap window, opening outwards or inwards as desired. Dr. Weatherly went on to describe this window more in detail. With a window like that they might always keep the upper part open, and obtain any amount of fresh air without any possible draught. In dealing with the question of the quality of the dietary, he was aware that he was touching on a very tender point. It seemed to him, however, that it was a very sad thing that there was an inclination on the part of management committees to pat on the back a superintendent who was able to show that he could keep his expenses per head of maintenance at a very low rate. (Hear, hear.) He felt very seriously that if committees of management spent a little more money on a more generous dietary—he would say nothing about the quantity,

that was ample, but in obtaining a more varied, more nutritious and fatty dietary—it would be a very great benefit. If they spent a little more on the food of the patients, and a little less on palatial buildings, they would be doing far more good in checking the spread of this terrible disease. (Hear, hear.) With regard to what could be done, first of all, to prevent the starting of phthisis, he would suggest that the number in the building be lessened. Then there was the tremendously difficult question of the expectoration. They did not find it impossible to inculcate cleanly habits in the case of dirty patients who entered their asylums, and he could not help thinking that if they adopted some such rules as were in force in different sanatoria for the treatment of the disease, beneficial results would follow. He advised the placing of spittoons fastened by locked rings in all corridors and wards, utensils by all bedsides; the posting of rigid rules, and the provision of some form of handkerchief for expectorating purposes which could be thrown away and burnt at once. Difficulties would arise, he knew, but he believed that by these means much good would be done. In the sanatoria in Germany rules were posted on the walls in all parts of the building to the effect that any one found spitting on the floor of the corridors or rooms, or outside on the walks, would be discharged, and, although they might be paying four or five guineas a week, they were sent away if they persistently disobeyed this rule. Then the nurses had also definite rules given them. They had always disinfectants handy, and a sort of mop with rag or soft paper at the end, which could be burnt after use, and with which if they saw any expectoration on the floor they could, after applying disinfectants, immediately mop it up. Another great difficulty they had to contend with was the diagnosis of phthisis in their patients. They found that in ordinary cases the most skilled physicians had a difficulty in diagnosing this terrible disease in its early stages, how much more difficult was it then in asylums for the insane! Dr. France and Dr. Cruikshank both suggested that medical officers of asylums should keep a very strict look-out upon the weight of their patients, and also spoke about monthly weighing. Personally he thought they ought to go a step further, and weigh their patients once a week, particularly in cases where it might be found they were not taking their food properly. The question of temperature was also a most important one. The old idea

used to be that one of the distinguishing symptoms of phthisis was the evening temperature of the patient rising higher than the morning. He could say from his own experience that such an idea was quite fallacious. A patient with a temperature normal morning and evening might possibly have a temperature of 102° at 12 o'clock in the day. There was absolutely no rule, except that in some period of the twenty-four hours there was fever. If they wished to diagnose phthisis, he advised that the temperature be taken in the morning, again at 12 o'clock, at 4 or 6, and also the last thing at night; and then if they found at any of those periods the temperature rising above normal, they should be very suspicious. He would not dwell upon the tuberculin test because that had already been threshed out pretty exhaustively. An important question which they had to consider, however, was what they could best do when they had the least suspicion of having a phthisical patient in their midst. He believed this to be a matter which they must grapple with definitely and decidedly. They had to deal, first and foremost, with a phthisical patient, and secondly with an insane phthisical patient; and it became absolutely necessary that whatever sanatoria treatment they adopted must be in the shape of another asylum for those patients. He would say generally that no definite rule ought to be made. The site of one asylum might have ground of easy access, in every way applicable to sanatoria, while in the case of another it might be that it would be impossible or entirely wrong to build a sanatorium near. To ensure success they required to be built on sandy or gravelly soil, which dried quickly, with woods where the patients could have sheltered walks, and with a south aspect, in order that the dwelling and sleeping rooms might be protected absolutely from the north and east winds. There was nothing which handicapped the treatment of phthisical patients more than bronchitis, and there was nothing more calculated to give bronchial catarrh in phthisical cases than when the patient was subjected to northern or easterly winds. Then came the question whether it would be feasible in some cases for two county asylums to join hands in the matter and have a decent sanatorium which should be within easy distance of either, with its own medical officer. He was strongly of opinion that to build small detached cottages for such a purpose would be a waste of money. By

removing phthisical patients from their asylums, and treating them in other buildings, they would, he suggested, be going a long way towards solving the difficulty which now existed in many cases of lack of accommodation for ordinary cases. His own feeling was that they could build a suitable sanatorium in England at £200 a bed, and give each patient a separate room to sleep in.

A sanatorium building was a most simple thing, and he was convinced that at a very moderate cost an excellent sanatorium might be built in connection with every asylum. He might say, in conclusion, that he trusted those who had to do with the treatment of this disease would not allow their ideas to run too much in the direction that fresh air, good wholesome nourishment and rest, were the only things to be considered. There were many to whom he had expressed the opinion that, by putting this question in the hands of lay people, and losing sight too much of the therapeutic aspect of the treatment of the disease, they were doing much to hamper its success. Many a life might yet be spared if symptoms as they cropped up were treated therapeutically, as men of science alone knew how to treat them. Finally, if they as asylum men would all work heart and soul in teaching their committees what should be done in this direction, he was convinced that they would show a very great lesson to England, in the way of mitigating the terrible ravages of this disease.

The CHAIRMAN (Dr. Deas) said there were many points in connection with which he was thoroughly at one with Dr. Weatherly, but he was afraid that some of the subjects he had touched upon must be characterised as somewhat Utopian. He thought Dr. Weatherly might have said something on the great advance which, it seemed to his mind, had taken place in the condition of their large public asylums in regard to this special matter within the memory of many who could not be considered even now very old men. When he looked back to the time when he began his connection with public asylums, he remembered that the existence of phthisis was a very great scourge and a very great opprobrium; but by attention to general principles of hygiene and common sense, improvements in the construction of asylums, in the ventilation and heating, and also in the dietary and nursing, a very great change had since been effected. He did not think they could quite let it go out that in this year, 1900, was the first time this question had come before them as medical officers of asylums, or that they had been standing still in regard to this matter. The question which Dr. Weatherly had opened up as to two county asylums having a combined sanatorium was fraught with enormous difficulties. They would not only have an immense initial expense in its construction, but there would be a very large annual cost in maintenance.

Dr. STEWART criticised the style of window advocated by Dr. Weatherly. He expressed the opinion that a greater improvement had taken place in the clothing of the women than in that of the men.

Dr. MORRISON spoke from his own experience of the beneficial effects of out-door treatment.

Dr. BENHAM said he quite agreed as to consumption being a curable disease. He had been struck, for instance, at post-mortems with evidences which undoubtedly bore out this belief. They would, of course, all agree as to the importance of ventilation, and also as to the strong part which the question of dietary played in connection with the subject. He was personally very much impressed with the value of a vegetable dietary. At every midday meal at his own asylum the patients had two vegetables. He did not quite see how the adoption of such an elaborate arrangement for spitting boxes, as Dr. Weatherly had suggested, was feasible. His experience was that there were a good many consumptive patients who spat very little. Neither did he think it possible to build sanatoria at £200 a bed. He believed it was recognised now that an ordinary asylum, built in accordance with the requirements of the Commissioners in Lunacy, cost little, if anything, short of £300 a bed. He thought it was possible that asylums might isolate some of their wards, devoting them exclusively to consumptive cases. This might possibly do as well as if they built elaborate sanatoria outside. With regard to the windows, he might say that in their new wards, which were now approaching completion, they had adopted windows on the principle suggested. As to the question of weight, his own patients were weighed once a month, and much more frequently in cases where anything particular was noticeable. He was bound to say that while they might do very much more, a great deal had been done of late years towards combating this dread disease.

Dr. WADE said in the new additions to the asylum at Macclesfield they had a separate ward for the treatment of phthisis. Speaking of the question of the temperature of consumptive patients, he might mention that in one case, which he had under his close observation, the maximum temperature was always reached at three o'clock in the afternoon. It might happen that in the morning and evening the temperature was normal, whereas in the afternoon it would rise as high as 103°. With regard to the question of expectoration, his experience was that, with very few exceptions, insane patients did not expectorate. On post-mortem examination, however, it was almost an exception in phthisical cases not to find ulceration of the intestines.

Dr. MOTT asked whether Dr. Weatherly had any statistics in support of the assertion that the percentage of phthisical patients in asylums was from 15 to 25 per cent., because it seemed to him an excessive one. In the asylum with which he was connected he found, on reference to the post-mortem record, that of the 151 deaths which had occurred in ten years, only thirteen had phthisical or tubercular manifestations, which only gave a percentage of just over 8, which, of course, was a very small one indeed.

Dr. MACDONALD said he was inclined to take the view that there had been rather too much talk about the whole question. The open-air treatment of pulmonary disease was not quite so new as some would have us believe; in fact, it was quite old. He agreed with the Chairman that phthisis was getting less in their public asylums, certainly very much less than when he entered asylum life over twenty years ago. He felt strongly that by their own initiative, and their own good work and endeavours in this matter, much could be done without putting their committees to the enormous expense of building sanatoria. During the past year two cases of pulmonary trouble complicated with mania, and which had been under treatment at Bournemouth for the former complaint when mental troubles appeared, made good recoveries at Dorchester. With ample recreation ground, and a strict insistence on the principle that every patient should, as far as practicable and possible, live in the open air, many of the more favourably situated institutions should show good results. He did not think it was possible to build any such institution as had been stated for the sum of £200 a bed.

Dr. WEATHERLY, in briefly replying to the discussion, said he would deal first with the remarks of Dr. Macdonald. He said at the outset that he deprecated any definite statement being made that every asylum should have its own sanatorium. What he said was, that every asylum should be able to treat phthisical patients. It depended entirely on the position and character of an asylum. Some one had asked the question whether he had not overrated the question of phthisis in

asylums. He might say that Dr. Cruikshank had distinctly gone into statis with regard to this question, and he held in his hand the return of the morta in the various English asylums between 1870 and 1897. They would see t during those years not a great deal had been done. In 1871 the death rate fi consumption in asylums was 17·2 per cent.; in 1873 it was 17·9; it droppe 13·1 in 1876; 12·7 in 1877; 14·3 in 1878; 13·5 in 1879; 10·5 in 1880; whera 1895 it rose to 15·8, and to 15·6 in 1897. There could be no doubt, therefore, t the rate had not very materially decreased during the last twenty years. even now Dr. Cruikshank stated that they had phthisical patients in asylum the proportion of 15 to 25 per cent. He did not advocate the wholesale build of sanatoria, but where asylums could not isolate their patients and promptly them under treatment, sanatoria ought to be built. Where, however, they w situated as Dr. Macdonald's Asylum was, then they had the remedy at their do With regard to Dr. Deas and the dietary, he confessed he did omit one rat important fact, and one which they must all lay to heart. In Scotland th existed a most marvellous village for orphans, where during the last few y some wonderful sanatoria have been built. The village was conducted on m the same lines as Muller's Orphanage Asylum. The results from the build there of the sanatoria had been most satisfactory. At this place in Scotland cost of keeping these children on the dietary which was said to be the proper for the treatment of consumption was very nearly 18/- per head per week. question of dietary, therefore, was a very serious one indeed. What Dr. Benl said with regard to clothing he quite agreed with. In all sanatoria the g thing was to harden all patients as quickly as possible. One of the method treatment was a cold morning douche bath, and once the patients got acclimat in that way perspirations soon ceased, and they were able to go out in all weath He quite agreed with what had been said as to the difficulties with regard to question of expectoration.

On the motion of the Chairman a cordial vote of thanks was accorded Dr. Weatherly.

(1) A Discussion introduced by Dr. Lionel Weatherly at a meeting of the So Western Division of the Medico-Psychological Association at Bailbrook Ho April 24th, 1900.

Observations on the Condition of the Blood in the Insa based on One Hundred Examinations.

By F. PERCIV MACKIE, M.R.C.S.Eng., L.R.C.P.Lond., late Assistant Me cal Officer, County Asylum, Shrewsbury.

IN the series of observations made, the best marked examp of each type of insanity were taken; great care was taken exclude the presence of inflammatory and other pathologi conditions, and also physiological blood changes were as far possible excluded, *e.g.*, those resulting from the ingestion food.

All the patients were males.

The instruments used were Gowers' hæmoglobinometer a hæmocytometer, and at the same time cover-glass preparati of blood were taken, and were subsequently fixed in forma ised alcohol and stained with methylene blue and eosin.

	J.	4,510,000	15,000	80	0·89	75·0	20·0	2·50	2·50	Mild case.
		4,370,000	8,000	85	0·97	73·0	19·0	6·0	2·0	Female patient; in interval.
		3,410,000	10,000	50	0·73	77·0	17·0	4·5	0·5	Female patient; severe case.
		4,000,000	8,000	80	1·00	63·0	34·0	3·0	—	Female patient; moderately severe.

MELANCHOLIACS.

		5,040,000	10,500	93	0·93	52·0	42·0	5·0	1·0	Simple chronic melancholia.
		[illegible]	20,000	110	1·05	84·0	13·0	[illegible]	[illegible]	[illegible]
		[illegible]	4,000	30	1·56	56·0	41·0	1·0	2·0	Shape still distorted; no myelocytes or nucleated red. After 3 weeks on large doses of arsenic mental state improving.
12	"	3,670,000	12,000	95	1·30	75·0	20·0	3·0	2·0	After 5 weeks on arsenic blood corpuscles normal.
13	"	4,890,000	10,000	100	—	75·0	21·0	2·0	2·0	Blood normal. Patient shortly to be discharged.
14	J. S.	2,370,000	1,500	40	0·85	63·0	28·0	7·0	2·0	Acute mania with severe anæmia; marked blood changes; excitement disappeared on anæmic condition, returning on improvement of blood-state.

AVERAGES.

Type of disease.	Number of cases.	Red cells, per cubic millimetre.	White cells, per cubic millimetre.	Percentage of hæmoglobin.	Individual corpuscular richness.	White corpuscles (percentages).			
						Polymorphonuclear cells.	Small mononuclear.	Large mononuclear.	Eosinophile.
General paresis . . .	16	4,182,500	10,562	87·46	1·05	70·98	22·01	5·70	2·01
Epilepsy	40	4,422,500	13,200	89·47	1·00	70·03	23·76	3·75	3·05
Melancholia	20	4,550,000	9,891	94·15	1·05	70·20	22·45	3·95	2·95
Mania	13	4,470,000	9,000	92·03	1·04	72·30	21·76	2·52	3·38
Miscellaneous	14	3,175,380	8,750	70·00	1·01	67·25	25·07	4·39	2·76
Grand averages . . .	103	4,200,026	10,280	86·62	1·03	70·15	23·01	4·06	2·83

In most cases 200 leucocytes were counted to get the percentages, two cover-glass preparations being examined.

In the enumeration of leucocytes the four chief varieties alone were tabulated; the description of these, with their average percentages, is thus given by Moncton Copeland:([1])

1. Polymorphonuclear—irregular and multipartite nucleus with finely granular oxyphilic granules in the protoplasm; 75 per cent.

2. Small hyaline leucocyte or lymphocyte, large spherical nucleus, hyaline protoplasm; 10 to 20 per cent.

3. Large hyaline mononuclear leucocyte, similar to 2 only larger; less than 10 per cent.

4. Eosinophile cell, horseshoe or reniform nucleus, coarse oxyphilic granules; 2 per cent.

The total number of leucocytes per cubic millimetre of pure blood is variously given by different authorities; it may be assumed that anything over 10,000 is probably pathological.

General paralysis.—Rutherford Macphail([2]) found that the red cells deteriorate in quality and quantity as the case progresses. The proportion of white to red cells increases with the disease. Hæmoglobin is low in the first stage, improves in the second, and is decreased again in the third.

Jeliffe([3]) obtained negative conclusions from examination of twenty cases of general paralysis. He found a constant reduction of hæmoglobin; no distinct leucocytosis; lymphocytes uniformly diminished; that the large mononuclear variety averaged high; and that the eosinophiles varied widely. Burrows,([4]) writing on the presence of leucocytes in convulsions, states that they are increased in the seizures of general paresis, as in other diseases, and that the degree bears some relation to the severity of the attack. He believes the leucocytosis to be due to increased muscular contraction superimposed upon pathological leucocytosis of longer standing.

Joseph Capp,([5]) in an exhaustive examination of the blood in nineteen cases, comes to the following conclusions, based partly on the results of his own careful investigations, and partly on the examination of the whole literature of the subject up to date:

(1) Hæmoglobin and red corpuscles are always diminished.

(2) Leucocytosis is generally present in late cases, but absent in early stages.

(3) Lymphocytes are diminished; large mononuclear cells are increased; eosinophiles are sometimes much increased, but not always. During apoplexy and convulsions the red corpuscles and hæmoglobin are generally increased. Leucocytosis is often sudden and pronounced. The degree of leucocytosis and the length of time it persists vary with the severity of the attack.

(4) Mononuclear leucocytes are increased more than other varieties during convulsive or apoplectic seizures.

He further adds, "From the foregoing we see that all observers are almost unanimous in finding the red corpuscles and hæmoglobin either normal or decreased, except in cases of excitement or after paralytic attacks. All who counted the white corpuscles found an increase except two observers (named), who made very limited observations." The present writer examined sixteen cases, and found that in only one was the standard of red cells reached; in ten the number was between 4 and 5 millions per cm., whilst in four cases it was between 3 and 4 millions, and in one it was 2½ millions.

In six cases there was a pathological leucocytosis, in two a hypo-leucocytosis, whilst in the remainder the number varied within physiological limits, between 5000 and 10,000 per cubic millimetre.

One case, which developed right hemiplegia without pyrexia, gave an increased leucocytosis from 9000 to 20,000 on the day following the first examination and six hours after the seizure. The increase was mainly due to the multinuclear variety, which rose from 75 to 82 per cent.

All the patients were either in the second or last stage of the disease; one only was in the early stage, and he was in a condition of acute mania, showing a marked leucocytosis.

The average red corpuscular count was	4,182,000	per cm.
„ white „ „	10,562	„
„ hæmoglobin percentage was	87·46	„
Polymorphonuclear leucocytes . . .	70·9	per cent.
Small mononuclear	22·0	„
Large mononuclear	5·7	„
Eososinophile	2·0	„

Considering, therefore, the debilitated condition of many of the patients, there is remarkably little impoverishment of the blood.

Epilepsy.—Rutherford Macphail,(6) after examining 100 cases, found that 37 per cent. showed decrease in number of the red corpuscles, and that 40 per cent. showed an increase.

The proportion of white to red corpuscles varied within normal limits.

The blood, he found, improved under bromides. Kroumbmiller (7) states that there is a leucocytosis with each fit, the increase lessening with each subsequent seizure. He finds the increase due to relative and absolute increase of young and adult cells and diminution of the older leucocytes. Leucocytosis reaches its maximum about one hour after the attack.

Eosinophile cells were increased a few hours after each attack. Red corpuscles were diminished. The writer examined forty cases, and found that the average red-corpuscle count was 4½ millions. In several cases—eight—there were over 5 millions per cm., in seven there were between 3 and 4 millions, and in one case there were 2½ millions only.

In twenty-five cases there was a leucocytosis of over 10,000, but it had no special relation to fits in all cases.

The relation between the blood-state before and after fits was very variable, and no deductions could be drawn. In some cases the count of leucocytes, taken in the interval of days a week between fits, was found to drop during or shortly after a fit, whilst in some others there was a marked increase. In one case, that of a patient who had recently developed the disease, 58,000 leucocytes were counted at the close of a long fit. In another, a child with a series of fits recurring every week or so, 10,000 white cells were found to have been increased by only 500 after twenty severe fits in quick succession.

Again, in a case of status epilepticus, after eighteen fits 9000 leucocytes were counted, and these only increased to 10,000 after thirty more fits, and this just before death. Hæmoglobin averaged 89·47 per cent.; in thirteen cases it was 100 per cent. or over; in ten cases it ranged from 90 to 100 per cent., in thirteen cases it ranged from 80 to 90 per cent., and four cases were under 60 per cent.

The relation between the number of red corpuscles and the amount of hæmoglobin, *i. e.*, the individual corpuscular richness, was maintained very constantly. In all but four cases it lay between ·8 and 1·1, 1 being the standard. The percentages

of white corpuscles were maintained generally within normal limits.

When a leucocytosis does occur after fits, the balance is maintained, or sometimes the polymorphonuclear average rises a few points.

The average of eosinophile cells was a little high, 3·05 per cent.; but the count of these cells, as also of large mononuclear, varied largely in different cases, but without constancy.

Melancholia.—Macphail ([8]) found a decrease of red cells in 50 per cent. of the cases he examined. The percentage of white to red was normal, and the average of hæmoglobin was 93 per cent. in males, and 85 per cent. in females.

Kroumbmiller([9]) found an increase of leucocytes, chiefly of eosinophiles and old cells, whereas lymphocytes and adult cells are diminished.

Loveland,([10]) writing on the examination of fifty-seven cases, finds that in the earlier, often pre-asylum stages of the disease, there is a marked increase in the hæmoglobin percentage, and also in the red corpuscular richness, but that as the cases progressed these conditions were lessened.

Dr. Whitmore Steele, in *American Journal of Insanity*, found, on the examination of thirty-five cases of melancholia, that all were deficient in hæmoglobin and in corpuscular richness.

Rayner ([11]) states that in 50 per cent. of cases the blood is deficient in hæmoglobin and in red corpuscles. The author cannot agree with Steele's statement as to poverty of hæmoglobin and corpuscular richness.

Hæmoglobin was 100 per cent. or over in eight cases out of twenty, and below 80 per cent. in only four cases. The individual corpuscular richness was never below ·9, and in fifteen cases was over 1·0. The red cells averaged 4½ millions, and in two instances only were below 4 millions. The white corpuscles averaged 9890 per cm., and were not abnormally low in any case. The average of various varieties was kept about level; in a few cases lymphocytes averaged high; neither large mononuclear nor eosinophile showed any special changes.

Mania.—Macphail ([12]) found the red cells to be up to or above the normal.

The proportion of white cells to red is higher in women than in men.

Hæmoglobin averaged 98 per cent. in males, and 93 per cent. in females.

Krypiakiewicz ([13]) found an increase of eosinophile cells in this as in other acute insanities, but not in chronic forms. Several other observers speak of an increase of eosinophiles in acute mania.

Kroumbmiller ([14]) found hypo-leucocytosis an almost constant feature.

Burton ([15]) found the same on examination of a few cases.

The present writer examined thirteen cases, and came to the following conclusions:—The number of red corpuscles was high, over 4,000,000 per cubic centimetre in every case, and averaging 4,470,000. Leucocytes averaged 9000 per cubic centimetre, and in one case the number was raised during maniacal outbursts; whilst in a second case it was higher during the interval between the attacks. In six cases the count was over 10,000.

Hæmoglobin was nearly normal, and averaged 92 per cent.

Individual corpuscular richness was normal, 1·04.

In the relative estimation of leucocytes nothing particular was noted; in a few cases eosinophile cells were high, and the average, 3·38 per cent., is higher than that noted in the other insane conditions. It is interesting to note that excessive masturbation does not appear to have any effect on the blood, several excessive cases of this sort showing the blood to be up to healthy standard. Macphail, however, found in several cases where masturbation was a marked symptom, that there was a considerable impoverishment of the blood.

The remaining fourteen cases were irregular or unusual types of insanity, some of them being associated with physical disease besides the mental changes. They have been added for the sake of interest, and to make the series complete. One of these showed extreme anæmia, and subsequently died of purpura hæmorrhagica, the post-mortem revealing a lympho-sarcoma weighing 10 oz. in the abdomen resting on the spinal column.

Another patient was admitted in acutely maniacal condition associated with chronic lead poisoning. He became extremely anæmic, and his blood showed all the profound changes associated with pernicious anæmia. When first taken, his blood-count was 1,500,000 red cells, with a percentage of hæmoglobin only 17. After a few weeks on liquor arsenicalis ℥xx three

times daily he improved markedly, and was ultimately discharged cured physically and mentally, and with 100 per cent. of hæmoglobin, and red corpuscles 4,980,000 per cm.

Macphail,[16] in reference to other types, says that in dementia the red cells are diminished, and this impoverishment progresses as age advances. The hæmoglobin percentage is also diminished. In 115 cases he found the red cells below normal in 55 per cent.

Imbecility is associated with diminution both of red corpuscles and of hæmoglobin.

In puerperal insanity hæmoglobin is very low, individual corpuscular richness is low, and there is no leucocytosis (Bevan Lewis).[17] In an acute case examined by the writer there was no leucocytosis, and hæmoglobin and corpuscular richness were normal.

In periodical maniacal conditions the number of red corpuscles and hæmoglobin percentage are decreased, but there is no leucocytosis during the acute stage. In two cases examined by the writer these facts were borne out in one patient, but in the other there was a large leucocytosis.

Conclusion.—In looking through the grand averages one cannot help being struck by the slight departure from normal which exists in the blood of insane patients. Though in some cases slight changes are noted with some degree of constancy, yet they are so insignificant that they do not appear to throw any light on the pathology, or give any indication for treatment in any class of case. When they do occur, there is good reason to suppose that the alteration in the blood-state is quite secondary to the mental change; and further, the examination of the blood in the present state of our knowledge is not even an aid to prognosis or diagnosis, as it is in so many diseases.

Following this paper are the details of each case *in extenso*, and in most cases a remark to show the state of the patient at the time of examination.

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Decrease of General Paralysis of the Insane in England and Wales. By R. S. STEWART, M.D., D.P.H., Deputy Medical Superintendent, Glamorgan County Asylum.

To anyone watching carefully the figures given in the last five annual reports of the Commissioners in Lunacy for England (1) it is quite apparent that one very distinct and unmistakable change has during each of the five years ending 1897 been taking place in the character of the admissions into asylums. There is no indication that lunacy is diminishing, rather the reverse, for the proportion of the average annual admissions in which the attack is stated to be the first, *i. e.*, *occurring* insanity, which in the quinquenniad 1888–92 was 3·7 per 10,000 of population, rose to 4 in the five years ending 1897. The change of type in the admissions to which we refer is the diminution in the proportion of general paralytics. Not only is this characteristic of the quinquenniad as a whole, but it applies to each of the individual years, the percentage proportion for each five-year period ending with that for 1893–7 being 8·7, 8·5, 8·4, 8·2, 7·8. The change is all the more striking inasmuch as each of the three quinquenniads preceding this one was characterised by a steady increase in the occurrence of the disease,(2) so striking, indeed, that one might have supposed that the Commissioners would have been justified in making a much more affirmative pronouncement than the one they do in their Fifty-third Report, viz. that "it would not appear that general paralysis is increasing in the general population." Not only is it not increasing, it is diminishing, and that, too, progressively, during the past five years.

For this change in the character of the insanity of England there must be some explanation, and in seeking for a possible solution certain questions arise. What bearing upon the subject have age, sex, social position, marriage, rural or urban life? and are there any noticeable differences in the "assigned causes" of the disease?

In the two periods compared the percentage of general paralysis to total admissions was as follows:

Years.	Males.	Females.	Total.
1888–92 ...	14·7 ...	3·4 ...	8·9
1893–97 ...	13·1 ...	2·8 ...	7·8

The diminution appears to affect males more than females, but this is apparent rather than real, for the ratio of males to females, which in the first period was 4·1 : 1, becomes in the second 4·38 : 1. The average annual admissions of males in the second period is four more than in the first, representing a percentage increase of 0·35; while in the case of females there is an actual diminution of thirteen, a percentage decrease of 4·66. The percentage increase of first attacks in the second period, as compared with the first, is practically identical for the two sexes—males 15·9, females 15·7; so that it appears that, while both sexes are in an equal degree increasingly liable to insanity, both are less liable to be affected by general paralysis, and that this latter tendency is much more pronounced in the female sex.

In considering the relation of social position to the occurrence of the disease one particularly striking feature becomes evident. The following figures give the percentage of general paralytics to total admissions during the two periods contrasted, distinguishing the sexes and social position:

Years.	Private.			Pauper.		
	M.	F.	T.	M.	F.	T.
1888–92 ...	12·9 ...	1·1 ...	7·4	15·0 ...	3·7 ...	9·1
1893–97 ...	13·2 ...	0·9 ...	7·1	13·0 ...	3·0 ...	7·9

The yearly average of the total number of private patients admitted in the second period, as compared with the first, represents a percentage decrease of males 9·6, females 1·3, total 5·6; while in the case of general paralytics the decrease amounts to males 7·3, females 16·7, total 8·0. In the case of pauper patients there has been a percentage increase of the yearly average of the total admissions of males 17·1, females

15·4, total 16·3; but with regard to general paralytics the percentage decrease of 5·2 among females is more than sufficient to counterbalance the slight increase among males (1·6), so that the result for both sexes is a decrease of 0·2.

In only one class of society is there any exception to the general tendency, and that is the one which provides the private male general paralytic. The proportion in this class continues to increase, though, it must be said, at a slightly diminishing rate, until now it has arrived at that point that the proportion of private male general paralytics for the first time since records were available overtops that for male pauper patients. The steady progressive decline of general paralysis among private female patients, which has been going on uninterruptedly since 1878, is continued, and unless some material change takes place in the social environment the disease will apparently be extinct in half a century from the present. These various changes are represented graphically in the accompanying chart.

Among the better-to-do classes fewer of both sexes tend to become insane; fewer women are liable to general paralysis, but more men become paralytics. In the case of the poorer section of the community there is an apparent increasing tendency to lunacy, but a diminishing tendency towards general paralysis.

The following figures show the ratio per cent. which the yearly average annual admissions of general paralytics bear to the total admissions for the two periods, arranged according to sex and condition as to marriage:

Years.	Single.			Married.			Widowed.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
1888–92	6·9	1·5	4·2	23·0	5·2	14·1	11·0	3·1	5·9
1893–97	6·3	1·3	3·8	20·5	4·3	12·4	9·4	2·7	4·5

Married men participate most in the general improvement, and next in order come widowers, single men, wives, widows, and single women.

The admissions of general paralytics during the year 1898 have been such as to indicate a continuance of the decrease of the disease which has characterised the five preceding years. The following figures appear in the Fifty-fourth Annual Report of the Commissioners in Lunacy for England and Wales recently published.

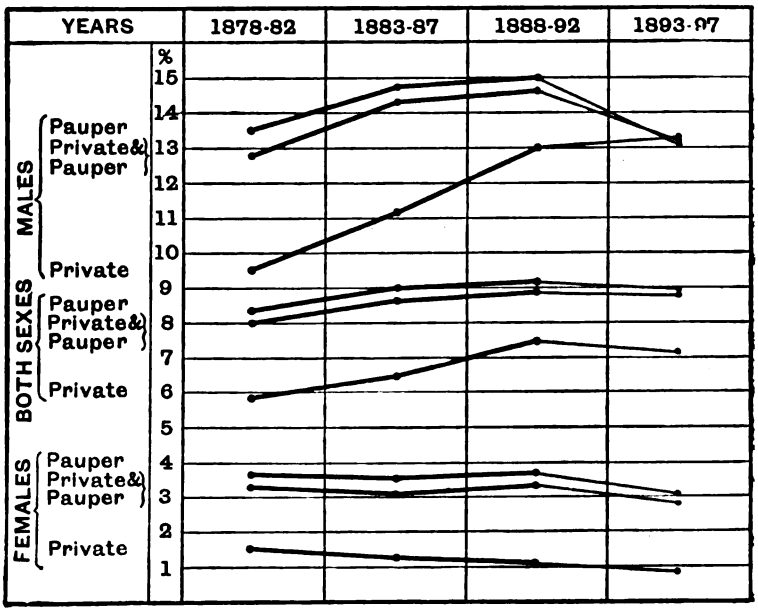
Proportion (per cent.) of General Paralytics to the Total of the Yearly Average Number of Patients admitted during the five years 1894–8.

Private.			Pauper.			Total.		
M.	F.	T.	M.	F.	T.	M.	F.	T.
13·8	1·0	7·5	12·5	3·0	7·6	12·7	2·8	7·6

The affection remains practically stationary among females. The decrease is one which affects males only of the pauper class, and the increase among private males is more pronounced than ever.

All age-periods are not affected alike in the general decrease which has taken place. The following figures show in five age-periods the proportion per cent. of general paralytics admitted to the yearly average of the whole number admitted in the two quinquenniads:

CHART *showing, in the Four Quinquennial Periods 1878 to 1897, the Proportion (per cent.) of General Paralytics to the Total of the Yearly Average Number of Patients admitted.*



Years.	Under 15.	15—34.	35—44.	45—54.	55 and up.	Total.
1888–92	0·0	5·0	17·7	13·7	3·0	8·9
1893–97	0·5	4·8	15·6	11·3	2·3	7·8

The greatest decrease takes place at an age-period which, for general paralysis, is an advanced one, viz. 45—54, and the next greatest in the period in which the disease is most prevalent, 35—44. At the earliest period there is an actual increase, pointing to an increasing prevalence of juvenile paralysis, and in the age-period 15—34 the decrease is considerably below that for all ages combined.

Though there has been a decrease in the percentage of general paralysis to total admissions throughout England, this diminution is far from uniform. Some parts, indeed, still show an increasing prevalence of the disease. Of twenty-nine counties whose figures are available, there are fifteen which show an increase. With very few and unimportant exceptions these are mainly the industrial counties, and those in which the increase is still considerable are coal-mining counties. Fourteen counties show a decrease, and these, with three exceptions, in which the diminution is an inconsiderable one, are chiefly rural in character. While five towns show an increase, in the case of eight there has been a diminution, mostly considerable in amount. The increase is still considerable in Derby, and the two coal-exporting towns of Cardiff and Newcastle-on-Tyne; but decreases are noticeable in the three seaports of Hull, Liverpool, and Bristol, while the largest diminution of over seven occurs in Birmingham.

Except on three points the tables of "assigned causes" of general paralysis and of insanity in general present little dissimilarity. These three points refer to alcoholic and sexual intemperance, and venereal disease. So far as these three factors are concerned, the variations which have taken place in the five years 1893–7 compared with the preceding quinquenniad are shown in the following table, which gives the proportion per cent. in which these causes were assigned to the yearly average number of admissions:

		Alcoholic Excess.		Sexual Excess.		Venereal Disease.	
		M.	F.	M.	F.	M.	F.
Total Private Admissions,	1888–92	17·3	6·6	1·7	0·5	2·8	0·2
„ „ „	1893–97	21·4	8·6	2·7	0·4	4·2	0·3
„ Pauper Admissions,	1888–92	21·1	8·3	1·1	0·7	1·1	0·4
„ „ „	1893–97	22·1	9·1	0·8	0·6	1·8	0·5
General Paralytics,	1888–92	26·1	20·1	3·9	5·4	3·9	1·4
„ „	1893–97	25·6	18·6	3·5	4·6	7·6	3·0

As an ætiological factor in insanity, drink is on the increase for both private and pauper patients, and for both sexes. In

the case of general paralysis the reverse holds, and the same may be said of sexual excess. A different condition prevails with regard to venereal disease. Here this factor is on the increase both for insanity and for general paralysis, but the increase is much more pronounced in the latter than the former, and this applies to both males and females. With regard to the relation of syphilis to general paralysis, the view that has received most wide acceptance of late years is that syphilis is to be looked upon rather as an agency which so affects the nervous system as to make it more liable to organic affections, such as general paralysis; in other words, it acts as a predisposing, not as an exciting cause. At first sight it seems anomalous that while general paralysis is on the decline, venereal disease as a cause of the disorder should be on the increase; but in all likelihood the real reason of this is that more careful inquiry is being made as to the possible existence of this cause, for the number of cases of general paralysis in which the cause is unascertained has diminished nearly to the same extent as venereal disease has increased.

General paralysis is an affection which prevails chiefly among men, in the prime of life, members of urban and industrial communities. What has occurred in their environment that can in any way account for the fact that when they do become insane their insanity should be less liable to take the form of general paralysis? So far as regards men of the better-to-do classes of society, apparently no material change has taken place, for the increase of the preceding fifteen years is not materially checked, so that the improved condition of affairs is one which affects men of the less well-to-do classes. Some improvement must have been taking place in the conditions of present-day urban life to account for this noticeable change in the type of its insanity. Even though figures point in a contrary direction, it is more than doubtful that syphilis is now more a cause of general paralysis than it was. Amongst the younger working men of large towns there is less liability to this grave form of insanity, and this is found to go along with less drunkenness and less sexual excess. These two latter may be regarded as evidences of a vicious form of outlet for surplus energy, and some more healthy outlet must have been found to take their place. As healthy outlets, athletics and sports, such as cricket and football, have no doubt had

their influence upon this class of men; but if there is one thing which, more than almost anything else, has of late years benefited the younger men who live in towns, it is cycling. The introduction of this healthy pastime is one which has enormously altered for the better the conditions of town life, an evidence of which is furnished by the diminishing prevalence of this grave form of insanity.

The diminution in the prevalence of general paralysis, which first began to be apparent in England in 1893, indicates a tendency towards greater power of resistance and increased vitality, whatever the explanation; and so far as one can judge it is in England alone that the improvement has so far begun to manifest itself. On the Continent ([3]) the disease continues to increase, and this increase is particularly marked in women. The tendency on the Continent appears to be different from what it is in this country. Greidenberg speaks of the disease as one which, beginning in the higher classes, tends to increase more in the middle and lower classes, the reverse being the case with women. In men the affection, from being an aristocratic disease, is becoming more a democratic one. Here, it is in men only that the disease becomes increasingly an aristocratic one; in all other classes the tendency is towards diminution. The condition of affairs in Scotland and Ireland is indicated in the following tables:

Percentage proportion of general paralysis as a cause of death in Scotch asylums.([4])

Years.	Males.	Females.
1870–74	16·2	4·5
1875–79	17·9	3·4
1880–84	16·3	3·7
1885–89	18·3	4·9
1890–94	21·5	4·8
1895–99	22·4	4·9

In Ireland statistics relating to this affection are available since 1890, and dividing the ten-year period ending 1899 into two periods of five each, it becomes quite evident that the tendency is in the direction of increasing prevalence, slight though that may be.

Table showing the proportion of general paralytics per cent. of the total admissions during the two periods 1890–94 and 1895–99.(5)

Years.	District Asylums.			Criminal Asylums.			Private Asylums.			Total.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1890–94 ...	1·84	0·19	1·08	3·03	0·00	2·59	5·02	0·26	2·76	2·00	0·20	1·17
1895–99 ...	2·03	0·29	1·23	0·00	0·00	0·00	7·14	0·42	3·87	2·43	0·29	1·44

In both these countries the increase continues unchecked, and in both it is amongst private males that the increase is most pronounced. The favourable change in the social environment which has manifested itself in England has not so far made itself felt in either of these countries or the continent of Europe.

(1) Forty-ninth to Fifty-third Reports of the Commissioners in Lunacy (England and Wales).—(2) Stewart, "Increase of General Paralysis in England and Wales," *Journal of Mental Science*, 1886.—(3) Kraft-Ebing, *Jahrbücher f. Psychiatrie*, 1895. Greidenberg, *Neurologisches Centralblatt*, 1897 and 1898.—(4) Fortieth Report of the General Board of Commissioners in Lunacy (Scotland).—(5) Fortieth to Forty-seventh Reports of the Inspectors of Lunatics (Ireland).

Legislation for Inebriates in England, with special reference to the Act of 1898. By WILLIAM COTTON, M.A., M.D., Honorary Medical Officer Royal Victoria Home for Inebriates, Bristol.

IN view of the fact that a considerable amount of confusion exists in the mind of the profession as regards recent legislation for inebriates, I have ventured to bring this somewhat dry-as-dust subject before the readers of the *Journal of Mental Science*.

There is no statutory enactment as yet concerning those suffering from the intemperate use of alcohol or other drug of an intoxicating or narcotic nature who, from sincere desire to overcome their besetting sin, and from the friendly compulsion of friends and relations, who do not bear the purse in vain, become "voluntarily," by various forms of private contract, the inmates of the various well-known unlicensed retreats and homes for inebriety, or (it may be) the resident patients of medical men. There is no official cognizance of such homes or patients, and no Government inspection, except casually,

even when these patients are living in premises another part of which is "licensed under the Act." When supervision, or moral influence, or want of ready money, or, perhaps, the forfeiture of board money already paid, fails in restraining them from gratifying their diseased propensities, there is no legal restraint over any of their actions. Whatever undertaking they have signed, they are free if they only know it to go when they choose. When they escape, if escape it can be called where departure cannot legally be prevented, they may not legally be brought back against their will, even if they have agreed previously to submit to force.

The following are the existing Acts of Parliament relating to the habitual drunkard or inebriate. The long titles only are given; the Roman numerals refer to the respective short titles in the table.

I. An Act to facilitate the control and care of Habitual Drunkards (1879).

II. An Act to amend the Habitual Drunkards Act, 1879 (1888).

III. An Act to consolidate the Acts relating to the Prevention of Cruelty to, and Protection of Children (1894).

IV. An Act to provide for the treatment of Habitual Inebriates (1898).

V. An Act to amend the Inebriates Act, 1898 (1899).

N.B.—Nos. I, II, IV, and V are cited together as the Inebriates Acts, 1879—1899.

Under Section 3 of the original Act (No. I) an 'habitual drunkard' (generally styled in later Acts an 'inebriate') "means a person who, not being amenable to any jurisdiction in lunacy, is notwithstanding, by means of habitual intemperate drinking of intoxicating liquor, *at times* dangerous to himself or herself or to others, or incapable of managing himself or herself, and his or her affairs"—a very good definition too, and sufficiently comprehensive in regard to alcoholic intoxicants. In a footnote to the form of statutory declaration now in force we are informed "the Secretary of State" (Home Secretary) "is advised that intoxicating liquor may include liquors other than alcohol, if their habitual intemperate use brings the consumer into the condition of an habitual drunkard." It appears, therefore, that the majority of cases of habitual abuse of chloral, chloroform, ether, cocaine, and other narcotic stimulants are

well within the scope of the Inebriate Acts. It might be of some practical advantage in any future Act to clear up the remaining ambiguity as to the abuse of drugs producing intoxication not in liquid form, and by other methods besides drinking, *e.g.*, the eating of solid opium and the use of the subcutaneous syringe.

Of the above Acts, Nos. I, II, and parts of IV refer to non-criminal inebriates voluntarily applying for admission to a duly licensed retreat; Section 2 of No. III also applies to this class of case. The rest of No. IV and No. V refers to criminal inebriates, who may on conviction for certain offences be compulsorily sent to an inebriate reformatory established or certified by the Secretary of State. We have therefore to consider the law as relating to "licensed retreats" and "inebriate reformatories" and their respective inmates. On page 61 will be found a tabular statement which is an epitome of the present paper, and an aid in understanding the two different classes of institution or case, with Acts or parts thereof respecting each.

All the Acts enumerated apply, *mutatis mutandis*, to Scotland and Ireland, and an amending Act, 1900, to Scotland alone.

Licensed Retreats for Voluntarily Attested Patients.

The Habitual Drunkards Act of 1879 (No. I), as amended by the Acts of 1888 and 1898 (Nos. II and IV), is in force till further provided by Parliament. The local authority (borough or county council) may grant to any person, or two or more persons jointly, a licence for any period not exceeding two years to keep a retreat, and may revoke or renew the same. The application for licence and the licence shall be in special form. One licensee at least shall reside in the retreat and be responsible. A duly qualified medical man shall be appointed as medical attendant of such retreat, provided that licensee if duly qualified may himself act as such. A licensee may appoint a deputy to act for him during his temporary absence during any period or periods not exceeding in all six weeks in any one year. No licence is to be given to any person who is licensed to keep a house for the reception of lunatics. The local authority may transfer licence. If a re-

treat becomes unfit for the habitation of patients, or otherwise unsuitable for its purpose, the local authority or the inspector of retreats shall order their discharge. Any habitual drunkard (definition already quoted) desirous of being admitted into a retreat may apply in writing to the licensee. Such application shall be in special form, and shall state the time during which such applicant undertakes to remain in such retreat. The application shall be accompanied, except in cases of extension of the time of detention or re-admission, by the statutory declaration of two persons to the effect that the applicant is an "habitual drunkard within the meaning of the Inebriates Act, 1879." The signature of any applicant to such application shall be attested by any one Justice of the Peace, and such Justice shall not attest the signature unless satisfied that the applicant is "a person to whom the Habitual Drunkards Act, 1879, applies" (except in cases of extension of the time of detention or of re-admission, Section 17, No. IV), and shall state in writing and as a part of such attestation that the applicant understood the effect of his application for his admission and reception into the retreat. After admission into such retreat a patient shall not be entitled to leave till the expiration of the term mentioned in his application, and may be detained therein till the expiration of such term, provided such term shall not exceed the period of two years, unless discharged or under licence (ticket of leave). Any patient may at any time be discharged by any Justice if he thinks fit, on the request in writing of the licensee. An inspector and assistant inspector of retreats may be appointed by the Secretary of State (Home Secretary). Every retreat shall be inspected at least twice a year. The Secretary of State may discharge any patient. The inspector shall report annually to the Secretary of State, the report to be laid before Parliament. The Secretary of State may make, cancel, or alter rules for the management of a retreat. A judge of the High Court of Justice or a county court judge, within whose district the retreat is situated, may on inquiry discharge any patient. A justice of the peace at the request of a licensee may by licence under his hand (ticket of leave) permit a patient to live with any trustworthy and respectable person named in the licence for a definite time. The licence (ticket of leave) shall not be in force for more than two months, but may within that time be renewed for not more than two

months, and so from time to time until patient's period of detention has expired. A patient's absence under licence (ticket of leave), unless forfeited or revoked, shall be deemed part of his detention in the retreat. If licence (ticket of leave) be forfeited or revoked, the time of absence from retreat shall be excluded in computing the time of detention in the retreat. A patient absent under licence (ticket of leave) who escapes from the person in charge, or who refuses to be restrained from drinking intoxicating liquors, shall, *ipso facto*, forfeit his licence, and may be taken back to the retreat. A licence (ticket of leave) may be revoked by the Secretary of State on the recommendation of the inspector, or by the justice of the peace who granted it, and thereafter the patient shall return to the retreat. An offence against the Act by any person not a patient is liable on summary conviction to a penalty not exceeding £20, or imprisonment for any term not exceeding three months with or without hard labour. Such offences are neglect of a patient by licensee, or ill-treatment by anyone, or his wilful neglect by an officer, or the inducing or assisting by anyone of him to escape, or the bringing by anyone into retreat without authority of the licensee or medical officer any intoxicating liquor, or sedative narcotic, or stimulant drug or preparation, or the giving or supplying the same by anyone to any patient. Great care has also to be taken by the licensee and the medical attendant in the case of the death of a patient in a retreat, and by the person in charge where patient under licence (ticket of leave) dies, in notifying the same, as an offence against the Act may, otherwise, readily be committed. A patient who wilfully neglects or refuses to conform to the rules of a retreat shall be liable on summary conviction to a penalty not exceeding £5 or imprisonment for any period not exceeding seven days, and then be brought back to the retreat and detained for the prescribed period, the period of imprisonment not being computed as part of the time of detention in the retreat. If a patient escapes from a retreat or from the person in whose charge he is under licence (ticket of leave), any justice or magistrate having jurisdiction in the place where he is found or whence he has escaped may on the sworn information of the licensee issue a warrant for the apprehension of the patient; the patient shall on apprehension be brought before a justice or magistrate, and may if ordered be remitted to the retreat.

The time between his escape and return shall not be treated as part of his term of detention in the retreat.

The original Act of 1879 (No. I) was limited to expire at the end of ten years; by it no power was given to a licensee to appoint a deputy during temporary absence, and the signature of an habitual drunkard applying to be admitted had to be attested by two justices of the peace having jurisdiction under the Summary Jurisdiction Act in the place where the matter requiring the cognizance of a justice arises. By the Amending Act of 1888 (No. II) the original Act was prolonged indefinitely, the licensee was empowered to appoint a deputy during his temporary absence, and any two justices of the peace could attest an applicant's signature.

The original Act thus amended is further amended by the Act of 1898 (No. IV). Thus the local authority of the Act of 1879 becomes the present borough council and County Council. A licence may be granted for a period not exceeding two years instead of a period not exceeding thirteen months. A patient may apply to be detained for a term not exceeding two years in place of a term not exceeding twelve months. Any one justice shall be substituted for two justices as the attesting authority to the signature of an applicant. In case of an application by a patient for extension of his detention in a retreat, or his re-admission, the statutory declarations on a first admission are dispensed with, and the attesting justice shall not be required to satisfy himself that the applicant is an habitual drunkard. The Secretary of State may make regulations with respect to the procedure on application for admission or re-admission into a retreat, or for the extension of the term of detention, and the medical or curative treatment of patients in retreats, including the enforcement of such work as may be necessary for their health, etc. The regulations may prescribe special forms to be used in substitution for the special forms contained in Schedule 2 of the original Act—those now brought into use are practically the same,—which schedule then becomes repealed. The term "patient" is substituted for the disagreeable periphrases of previous Acts for the inmate of a retreat. These are the principal modifications of the Acts of 1879 and 1888 (Nos. I and II) made by the Act of 1898 (No. IV) as regards licensed retreats.

In addition No. IV makes an entirely novel departure. By

Section 14 "the Council of any county or borough may contribute such sums, and on such conditions as they may think fit, towards the establishment or maintenance of a retreat under the Inebriates Acts, 1879 and 1888, as amended by this Act, and two or more Councils may combine for any such purpose," the intention no doubt being to enable local authorities to aid the philanthropic in establishing retreats for voluntary inebriate patients of the poorer classes.

What have been the actual results of the Inebriates Acts as regards retreats and patients? The following details are mostly an analysis of the figures given in the Annual Reports of the Inspector of Retreats:

Licensed Retreats, 1882 *to* 1898.

In five years ending	Average annual number of retreats.	Average annual number licensed for.	Annual average of admissions.
1st January, 1888 . .	5	73	65
1st January, 1894 . .	6	103	111
1st January, 1899 . .	11	177	161

On the 6th of August, 1900, the actual numbers were—

Licensed Retreats, 6th August, 1900.

Number of retreats.	Number licensed for.
17	305 (131 males and 174 females)

The Inebriates Act, 1898 (No. IV) came into force on the 1st January, 1899. At the time of writing the actual number of patients was not ascertainable. In addition, though no exact figures are available, there is good reason to believe that the number of private patients "not under the Act" in licensed retreats amounts to an equal number of those attested "under the Act," and it is also believed on good grounds that the number of private patients in private homes and houses, and with medical men, about equals the total of those altogether in licensed retreats. Though no doubt much good work has been and is being done in the retreats, the numbers of licensed retreats and

their patients have on the whole up to now been disappointing. It will be interesting to see what further advance in number of licensed retreats and their proper inmates—especially of the poorer class—will be made under the amendments of the Act of 1898 (No. IV).

In the case of the voluntary applicant for admission to a retreat, the ideal is to make the portal swing open easily to the least pressure on the part of that volitionally feeble and fleetingly repentant personage, and automatically retain him till a reasonably effective period of detention should elapse. Further, on escape he should legally be brought back with as little fuss as possible. In these respects the original Act of 1879 (No. I) must be regarded as a good example of how not to do it. Even as amended by the Act of 1888 (No. II) it must be familiar to many practitioners from the initial difficulties thrown in the way of the erring patient and his friends. First catch your magistrate. Poor human nature does not care to call "stale fish" loudly, and it is hard on the individual to be written down "habitual drunkard" in the cold blood of a statutory declaration, perhaps by two of his intimate friends. From the common-sense point of view the Inebriates Acts touching the retreat-patient need further amendment in the direction of the still outstanding recommendations of the Inebriate Legislation Committee of the British Medical Association, 1892: (1) to do away with an appearance before a justice altogether, and to substitute reception and detention on a written application by the inebriate in presence of a commissioner, or of a member of the clerical, legal, or medical profession; and (2) power for a licensee of a retreat to recover an escaped patient direct to the retreat without a warrant or application to the police.

Before passing from the subject of licensed retreats it is as well for the sake of completeness to paraphrase Section 11 of the Prevention of Cruelty to Children Act, 1894 (No. III), headed "Power as to Habitual Drunkards." When a person is convicted of cruelty to a child, and it appears to the Court that the person is a parent of the child, or living with the parent, and is an habitual drunkard within the meaning of the Inebriates Acts, 1879 and 1888 (Nos. I, II), the Court may in place of sentencing such person to imprisonment make an order for his detention for any period not exceeding twelve

months in a retreat, the licensee of which is willing to receive him. The order is to have a like effect as if it were an application duly made by such person, and duly attested by two justices under the Acts, provided that the person convicted consents, that the Court considers the objections of the wife or husband of such person, and that the Court shall be reasonably satisfied that provision will be made for defraying the expenses of such person during detention in a retreat. This section, as far as my inquiries go, seems to have been a dead letter, and never to have been taken advantage of, and now to be practically superseded by the penal clauses of the Act of 1898 (No. IV), Section 1. The principle of a modified choice in place of out-and-out compulsion in the case of an inebriate criminally charged seems a good one in view of the probability that the attitude of mind of such a person would be more favourable to reformatory influences; and it seems a pity that this principle has not been developed further in regard to offences generally, in which drink plays a part, in later legislation.

Inebriate Reformatories for Criminal Habitual Drunkards.

This part of the subject may be treated with brevity, because, as medical men, we are not directly concerned with what are after all penal institutions. Our legal brethren, nevertheless, must be considerably interested in the novel principles introduced into our criminal jurisprudence by the present portion of inebriate legislation. Two grades of criminal inebriates (D and E) and two sets of reformatories are contemplated (3 and 4).

By the recent Act of 1898 (No. IV), when a person is convicted of an offence punishable with imprisonment or penal servitude (*i. e.*, any of the more serious non-capital crimes), if the Court is satisfied from the evidence that the offence was committed under the influence of drink, or that drunkenness was a contributory cause of the offence, and the offender admits that he is or is found by the jury to be an habitual drunkard, the Court "may," in addition to (drink as an aggravation?) or in place of (drink as an excuse?) any other sentence, order that he be detained for a term not exceeding three years in any

State inebriate reformatory, or in any certified inebriate reformatory the managers of which are willing to receive him. This is Section 1. By Section 2 any person who commits any of the offences mentioned in the first schedule of the Act (*e.g.*, drunk in any public place, drunk and disorderly, drunk and in charge of a carriage, being intoxicated when driving, drunk and refusing to quit a passenger steamer when requested, and many other peccadilloes the perpetrator does not think much of at the time), and who within the twelve months preceding the date of the commission of the offence has been convicted summarily at least three times of any offence so mentioned, and who is an habitual drunkard, "shall be liable" on conviction, on indictment or if he consents summarily, to be detained for a term not exceeding three years in any certified inebriate reformatory the managers of which are willing to receive him. This person is the well-known "repeater," or "alcoholic recidivist."

A State inebriate reformatory (a species of inebriate Broadmoor?) "may" be established by the Secretary of State, and any expenses incurred shall be paid out of moneys provided by Parliament. The Secretary of State makes all regulations for rules and management thereof, and for the classification, treatment, employment, control, and absence under licence (ticket of leave) of the inmates sent thereto, and subject to such regulations the Prison Acts, 1895 to 1898, shall apply, including the penal provisions thereof, as if the reformatory were a prison, except that no regulation shall authorise the infliction of corporal punishment. There is power given to recover expenses of detention against the estate of the person detained.

On the application of any county or borough councils or of any persons desirous of establishing an inebriate reformatory, the Secretary of State "may" certify it as an inebriate reformatory, and while the certificate is in force the reformatory shall be a certified inebriate reformatory within the meaning of the Act. The Secretary of State may make regulations prescribing the conditions of granting, holding, withdrawing, and resigning such certificates, and of the establishment, management, maintenance, and inspection of such certified inebriate reformatory. The Treasury "may" contribute out of money provided by Parliament towards the expenses of the detention of inmates.

Any borough or county council "may" contribute on such conditions as they think fit towards, or may themselves undertake the establishment or maintenance of a certified inebriate reformatory, and "may" defray the whole or any part of the expenses of detention of any person in any certified inebriate reformatory, and two or more councils "may" combine for any such purpose. If a detained person escapes from a certified inebriate reformatory or from the person in whose charge he is placed under licence (ticket of leave) he may be apprehended and brought back to the reformatory without a warrant, and the officers of the reformatory, while engaged in that duty, have all the powers, protection, and privilege of a constable. There is power given to recover expenses against an inebriate's estate in payment of expenses of his detention.

The Act of 1899 (No. V) relates merely to certain technical matters concerning prosecutions, and requires no further notice here.

As regards a State inebriate reformatory for England, the intention is for the present abandoned. In Scotland and Ireland respectively a portion of two existing prisons at Perth and Ennis are being adapted for the purpose.

As regards certified inebriate reformatories on 6th August, 1900 (excluding one for temporary reception for not more than twenty-eight days with accommodation for twenty-five females), the existing certified inebriate reformatories in England numbered five, and provided accommodation for 232 inmates (202 females and 30 males). No step to provide a certified inebriate reformatory appears to have been taken in Scotland or Ireland.

In practice, institutions for inebriates may comprise a private and a licensed retreat and a certified reformatory. The different classes of inmates are kept as far as possible separate from each other. The domestic discipline of the inmates who, whatever their original positions, are as a rule to be regarded as of the poorer class, is generally the same. Even in the case of those detained under the first and second sections of the Act of 1898 (No. IV) the discipline is milder, much less severe, and more elastic than in a prison. Each class works, eats, and exercises in association by day, and sleeps in supervised large dormitories at night. Fitting work is sought for all; none are tasked. The surroundings are reminiscent of an

asylum without the amusements. The inmates are allowed under escort freely into the outer world, and are generally cheerful and well conducted, with the exception of the one or two refractory individuals such as are to be found in every institution, whom each Institution feels would be much better somewhere else. Silence is not imposed, nor uniform dressing.(1)

During the last three years I have had occasion to have under medical observation during their stay or detention about 120 female alcoholic inebriates of the poorer class. Rather more than 40 such would be of the Classes A and B of the table on page 61; the rest were of reformatory class (one or two of Class D, but mostly "repeaters" E). Excluding two or three individuals who were more than doubtfully certifiably insane on admission, and three or four cases who were doubtfully so, I may remark that from the point of view of the physician and alienist they were a very uninteresting lot of people. A few of the cases during the week after admission showed some of the nervous phenomena associated with recovery from recent intoxication. The "repeaters," many of them, showed a considerable amount of resentment at their unexpectedly long commitment. The general health was good; there was practically no serious illness. A large proportion of the criminal inebriates whose vision was examined for the purpose had uncorrected errors of refraction.

In paragraph 3 of the Model Regulations for Certified Inebriate Reformatories it is stated, "The test of a well-managed institution is its success in leading to the permanent reformation of the inmates." As regards the attainment of this very high ideal, one's hopes in the case of the "repeaters" are often low, and one has to be contented with the thought of how happy must be the homes, relatives, and neighbours of this class of inebriates—without them!

At the same time amongst these 120 cases of inebriates there seemed no marked craving of any kind for drink, such as is seen in ordinary dipsomania or the delirium tremens of private practice; nor was there any of the recurrent drug hunger, as one sees it in the morphia habit, often lasting for months after deprivation. It was difficult to believe that any of them would take much trouble to get liquor, or would, for example, walk a couple of miles for a drink. The reflection is certainly suggested that the private after-care of friends might be rendered

effective by the elimination for these cases of the temptation thrust at them at every street corner on their return home after discharge. The plan has often been mooted. If difficulties of administration render the plan impracticable in the case of other habitual drunkards, surely with the ear-marked criminal inebriate on discharge—he or she is already known to the police, and could easily be black-listed—or even with the discharged retreat-patient, it should be comparatively practicable to render it penal for any holder of a licence (?) to sell drink in the neighbourhood, to supply it to such (either on or off the premises), or to the household of such.

In conclusion it is to be noted that for those dangerous and incapable inebriates who are unwilling to put themselves under any form of care and treatment, and who yet keep themselves outside the pale of the law, except so far as a few of them may be qualifying themselves to graduate as "repeaters," there exists no form of legal compulsion, nor is there from the nature of the problem any institution providable as yet. Nothing certain statistically is known of them, except that their name is "Legion," for they are many. Thirty years have elapsed since Dr. Dalrymple's Bill on the subject was introduced, suggesting the principle of compulsory seclusion of this class of habitual drunkard, for a definite time, at the request of a relative, on two medical certificates, and the affidavit of an independent witness, in a reformatory (*i. e.*, a non-criminal retreat), under the control of the Lunacy Commissioners. Nothing in the direction of this, the least degrading form of compulsion, namely, that by medical certificate, has as yet been effected, though the principle has been endorsed by the Inebriates Legislation Committee of the British Medical Association, and meets with the approval of the profession generally.

In the Channel Islands at the present day a form of the "conseil de famille" is legalised under the old French law, and by it on application to the authorities a person who is insane or given to inebriety may be deprived either of his control over his money and business or of his liberty till recovery.

The Legislative Classification of the Habitual Drunkard.

Institution or part of institution.	Class of patient or nature of case.	Special Act of Parliament, or part thereof (short title).
(1) Private retreat, home or house, "not under the Act"	A. Voluntary inebriate patient or boarder under private contract	None.
(2) Retreat licensed "under the Act"	B. Habitual drunkard voluntarily applying "under the Act" and duly attested by a justice of the peace	I. Habitual Drunkards Act, 1879. II. Inebriates Act, 1888. IV. Inebriates Act, 1898, sections 13 to 21 inclusive, and part section 27, and sections 28 to 30 inclusive.
(2) Retreat licensed "under the Act"	C. Habitual drunkard "convicted of cruelty to a child," on his or her consent	III. Prevention of Cruelty to Children Act, 1894, section 11.
(3) State inebriate reformatory or (4) Certified inebriate reformatory	D. Habitual drunkard convicted of an offence punishable with imprisonment or penal servitude (section 1, Inebriates Act, 1898)	IV. Inebriates Act, 1898, except sections 13 to 20 inclusive, part section 27, and section 28.
(4) Certified inebriate reformatory	E. Habitual drunkard four times convicted of drunkenness (as scheduled), three of these convictions being within a year preceding date of fourth offence (section 2, Inebriates Act, 1898)	V. Inebriates Act, 1899.

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Forms of request for reception into retreat, request for retention or re-admis-

sion, discharge, leave of absence, and statutory declaration, under the Inebriates Acts, 1879 to 1899.

Inebriates Act, 1898. *Parliamentary Return*, August 6th, 1900.

(1) Cellular confinement, enforced silence between prisoners, uniform attire, and punishment for definite task unperformed, are the distinctive marks of ordinary prison discipline.—(2) The word "licence" means (1) authority to keep an inebriate retreat, (2) permission to be at large on probation, (3) authority to sell certain articles, such as drink. The context generally shows what is meant, but not always.

Some Incidents in the History and Practice of Ticehurst Asylum. By the Medical Superintendents. Read at the Autumn Meeting of the South-eastern Division, held at Ticehurst on October 10th, 1900.

IT has occurred to us that on the occasion of your visit to an asylum which has been in active work for upwards of a century, and which has shared in and felt many changes in the treatment of lunacy, it would interest you to hear a little of its history.

As a preliminary we give you an extract from the vestry book of the parish.

"TICEHURST; *April 20th*, 1755.

"At a vestry this day, pursuant to publick notice given in the church this morning, it is agreed to confine Thos. C— by chaining him up, he having attempted to make away with himself.

"John Clifton
"Thos. Hover } *Churchwardens.*
"The mark of
"Alex. × Squire
"Thos. Chapman } *Overseers.*"

We believe that our predecessors, who have for centuries followed the medical profession in this parish, were in the habit of receiving patients in their private houses. However this may be, a new asylum proper was opened in the year 1792. The plans which are before you show that the old building was not dissimilar to our present principal house, and you will note that there were no small chambers or cells. About the year

1830 two wings were built to the north ; these still exist. In 1852 the whole of the main building was destroyed by an accidental fire, with the exception of these wings. About 1810 the then proprietor, our great-grandfather, built another private house for himself, and added rooms for patients. About 1853 our fathers each built a house for himself. All three have in course of time been absorbed, and, in addition, another villa has been built, making four in all. Whether the houses built by us, the present proprietors, for our own use will, in the course of time, be subject to this process of absorption is at present unknown, but we can say with confidence that such houses built for private occupation under the ordinary circumstances of life are a most valuable adjunct to the main building. Each is under the care of a lady superintendent, and not one of them is so large as to prevent her from not only securing domestic comfort, but also giving companionship to its inhabitants. In addition, each house is a social centre, between which invitations to tennis, cards, and tea are habitually exchanged. Then about 1864 a great move was made in leasing houses at St. Leonards, where patients of both sexes could go for a change, or as a step to discharge. In 1889 we had a large house specially built for us there, which is under the control of a gentleman and a lady superintendent. We believe that the idea of sending patients to the sea-side was a novelty at the time, and, in fact, raised a legal question whether the Act permitted such a wholesale system of absence. But that point was soon settled.

If we add that we have rather over 300 acres of land taken up by the houses, gardens, plantations, and farm, we have set out our borders before you. We find no trace of any walls or other means of confinement outside the house ; in fact, the grounds and walks are now very much what they were in 1816. In this year, as there was an immense amount of distress after Waterloo, our grandfather took the opportunity of the call for employment to lay them out, and they have hardly been touched since then. Escapes off the premises have naturally occurred from time to time, but no serious trouble has followed. We have heard that in the old days a patient, who was suspected of undue mobility, had his heel-plates, which were usually worn in those days, set on the reverse way, so that if anyone walking in our sandy lanes saw such a lunatic thing

as a toe going to London and a heel towards Hastings, he could at once recognise who had been that way. A large staff, of course, is the secret of our not having lost many.

This museum in which we now are, with the conservatory and the adjacent so-called Chinese gallery, was erected before the year 1830, entirely for the recreation of patients.

Going back to the beginning again, we find that in the first year nineteen patients were admitted, in 1812 forty-one, in 1823 twenty-four, in 1840 but six. These variations probably depended partly on vacant accommodation, but chiefly on the fact that insanity was a much more moving disease than it has been of later years. For instance, of the forty-one admitted in all the months of 1812, thirteen had recovered, nine had been discharged (whether well or not is not stated), and three died by the end of the year, leaving then a balance of sixteen. Of these latter five more recovered within a month after the close of the year. The average residence of the recoveries was eight weeks, of the discharges eleven, and of the deaths twenty-five. In 1823 the recoveries were twelve out of twenty-four admissions, but the average residence was fifteen weeks. In 1822 a curious thing occurred—two sisters were admitted on one day, both noted as suffering from brain fever; one died two days after, the other recovered in seven weeks.

It is a matter for sincere regret that as the only source of this information is a set of old account-books there is no record of the treatment in these early days, for no doubt it was active, and probably what we should call heroic. Still it was successful.

The documentary authority for detention in early days was delightfully simple. Probably at first there was none. Then the proprietors got a medical certificate or request—chiefly for their own protection. One of ours, dated 1803, runs—

"To Mr. Newington Surgeon Ticehurst. By the direction of Mr. J—, of Tenterden, I advise you to receive into your house Mr. S. J—, jun., his son, who, from epileptic fits, is rendered incapable of conducting himself in society. April 5th, 1803.

Tho. Bishop, Surgeon. (Seal.)"

Then a sort of certificate was used which had to be sent

to the College of Physicians. This was either printed or written, and ran—

"In consequence of sufficient personal examination of . . . . . I do hereby certify that . . . . . is of insane mind, and I am of opinion that suitable confinement of . . . . . in a house of reception of the insane is necessary and proper. Signed, etc."

Next in 1829 there came a regular statement with two medical certificates and authority to receive. The certifying medical men had even then to examine the patient separately, but they had to give no reasons for their opinion. This document was the foundation of the elaborate machinery which gives asylum clerks so much to do now.

In 1840 things with us appear to have become very dull, the place being filled up with hardy perennials. We have had a great number of prolonged residences. One gentleman was here sixty-one years, a brother and sister were under care for 110 years between them, and so on. Out of 187 deaths since 1845, twenty-three had resided more than thirty-five years.

The year 1852 saw not only the life of the old house closed by fire, but only two days after, it also saw closed the long reign of our grandfather, who had taken up its control in the year 1811. Failing details of his treatment, we can record the broad lines on which he went by a quotation from the seventh Report of the Commissioners:

"This unfortunate event was very soon followed by the death of the resident proprietor and medical attendant, Mr. Charles Newington, a gentleman in whose memory it is only just to say that from an early period he took a lead in practically improving the treatment and condition of the insane, by introducing among his patients a milder and more kindly system of management, by allowing them a far greater degree of personal freedom in the enjoyment of exercise and recreation out of doors than had theretofore been permitted, and by gradually but steadily diminishing the use of instrumental restraint to an extent which of late almost amounted to its abolition."

Since then our numbers have slowly increased as additions have been made, but disproportionately, for each patient requires more space as years go on. For some years past we have had about eighty patients, more or less. Their numbers are too small to enable us to give annual statistics which would

be of any value, but for the sake of comparison we have taken out certain figures during the last twenty-five years, the history of which is personally known to us.

In the period 1875—1899 we have admitted 180 males and 177 females, 357 in all, or an average of 14 per annum. Of these 105 recovered before discharge, or an average of just under 30 per cent. But twenty more recovered after discharge. This is one of the annoyances and drawbacks to which we are exposed. Leaving these twenty out, and deducting from the admissions all transfers, as is the common custom, the ratio works out at 39 per cent. If the other twenty are added it goes up to 46 per cent. The average residence of those recovered was seven and a half months, but this was rendered higher by three recoveries after six and a half, four and a half, and three and a half years. Of the 357 patients 60 have died after an average residence of two years and ten months.

The average age on admission at quinquennial periods shows a variation from the Commissioners' figures for all England as follows :—We get fewer young people and more old ones. The effects of this variation may be thus summarised :—With us 28·5 per cent. are below thirty-five years of age, while 71·5 per are above ; the same averages for all England being 38·5 per cent. and 61·5 per cent., or a difference of 10 per cent. each way. It will be found on examining the figures of different institutions that private patients tend to come into care considerably later than is the case with paupers. We can offer no reason for this which will not be pure speculation, but we know that it makes recovery more uncertain. The duration of the disease on admission, following the tables of the Association, was—

FIRST CLASS :	
First attack, and within 3 months, on admission	75
SECOND CLASS :	
First attack, above 3 and within 12 months, on admission	60
THIRD CLASS :	
Not first attack, and within 12 months, on admission	109

FOURTH CLASS:

First attack, or not, but of more than 12 months, on admission	113
	357

There are no figures in bulk with which one can compare the foregoing, but the total of over-year cases is far and away beyond general experience, while the number of recent cases is, on the other hand, much smaller. As regards the latter, we can to a certain extent explain that, being filled up with chronic cases, we have not always room for sudden calls.

The number of deaths in the twenty-five years, including those of patients admitted before 1875, was ninety-four, and the average age on death was 58·6 years. This also is in excess of the general experience, and is partly due, no doubt, to the fewer urgent cases received. The death rate has been just about 5 per cent. on the average number resident.

Causes of death:

Cerebro-spinal (including 22 general paralytics)	40
Thoracic—cardiac, 10; pulmonary, 9 . .	19
Abdominal	5
Senile decay	19
Other causes	11
	94

As to the causation of our cases there is nothing very special to remark. Hereditary predisposition is a hopelessly unknown quantity. We get in time to hear of a history in many cases which has been denied unblushingly on admission. With us mendacity is added in probably a greater degree to ignorance of family history than is usual in most institutions. In 1840 there were four pairs of brother and sister. We do not think that we could trace alcohol as a cause to the amount of the Commissioners' average of 16 per cent. in all England, and though, unknown to us, it may be the origin of slow brain destruction, we but rarely see it as an active cause.

The forms of insanity on admission were—

Mania	209,	of which 81 were acute.
Melancholia . . .	89,	„ 33 „
General paralysis . .	22.	
Dementia . . .	37.	

With regard to general paralytics, as will be seen, our proportion is about 6 per cent.—all males. We have never had a female case. Some have lived a long time, viz., one case thirteen years, another twelve years.

We think that, as a rule, they survive longer here on account of being kept apart, and therefore quieter than they would be in wards.

Some cases were undoubtedly syphilitic, but we cannot subscribe to the pan-syphilitic origin of the disease, as far as our knowledge of the cases goes.

We have had some mistakes in diagnosis. One case had all the usual symptoms well marked, left us relieved, has been cured elsewhere, and has been under various forms of control since, but after eleven years we believe he is as lively as ever. Another came with melancholia complicated with locomotor ataxy, undoubtedly syphilitic in origin. He was not considered to be a general paralytic, and apparently recovered from both diseases, and went about his professional work, which entailed the exercise of high intellect. After two years he became ill again and died of general paralysis.

Our staff—dealing here only with those who are solely engaged in the care of patients—consists of the lady and gentleman superintendents before referred to, of lady and gentleman companions, and of attendants and nurses. With a few exceptions we very much prefer to take inexperienced persons and train them. Two out of six lady superintendents have had experience elsewhere. Our male head attendant was also trained elsewhere, for we should never promote any of our attendants to a post of such authority. We have trained all our four gentleman companions, while two of the four lady companions have worked in other asylums. More than 75 per cent. of our male attendants are trained by us, and of the untrained ones four have come in to stop gaps left by excellent men of our own training who have gone to South Africa. We get our untrained men principally from the services. We have had some bad luck, but infinitely more good luck with these men. We make a considerable point of their having been officers' servants or mess waiters, because, in addition to having acquired a sense of discipline and duty, they start with the great advantage of knowing how to speak to gentlemen. We do not appreciate any fancied superiority either in station or bearing

among our attendants, as it is apt to be galling to our patients, and we prefer good manners. We adopt the view that they are body servants or valets, and this position is quite sufficient with the considerable amount of companionship with gentlefolk which we have.

The same consideration holds good with the female attendants. Few ladies can stand control by one who is neither one thing nor the other. We have to take experienced attendants to a greater extent in the case of females, since the changes for betterment or marriage being as frequent with us as other folk, we cannot get enough untrained women to keep pace with these changes. But some of our very best have received all their tuition here. We have now two nurses, and we had two others, making four sisters with us at one time, whose father is enjoying a pension after many years' service on the male side, and his father before him was in the service near the beginning of the century. We have also father and son as attendants on the gentlemen. We are fortunate in having in the neighbourhood women who have married after being in our service. These are very useful in case of emergencies or holidays.

The length of service has been satisfactory. When the Commissioners called for particulars on this point in 1898 we were able to give them the following figures :

Male attendants .	.	10·09 years'	average service.
Female attendants	.	5·5 „	„
All staff (including 8 boys)		7·98 „	„

Since then, however, one attendant has retired after fifty-five years' continuous service.

With regard to treatment, we depend mostly upon the exercise of common sense and the moral atmosphere that has been formed around us in the course of the long existence of the Institution. We give new remedies a trial as suitable occasions for their exhibition arise, but we cannot lay claim to any marked or specific results from their use, except in so far as they may be useful in the course of general treatment. We have, for instance, found no special benefit arise from thyroid treatment. We obtain good results by attention to physical conditions and the exercise of moral suasion by ourselves and those who receive their cue from us. As occasion arises for active treatment we are ready to apply any

remedies that suggest themselves as being likely to benefit the case, though at times refusal or resistance may force us to modify what seems most applicable, *e.g.* venesection may be called for, but if the patient is conscious and unwilling this may be difficult to perform. The last case of bloodletting we had was one of general paralysis, who was suddenly seized with convulsions just as he was preparing to make a stroke at billiards. The strength and frequency of the attacks were so alarming that we thought each fit would be his last, so after twenty-five fits we removed one pint of blood from his arm with marked success, the fits at once becoming less alarming, and terminating altogether after a total of thirty seizures had been reached. This patient lived for a couple of months much in the same condition as previous to the attacks, when he was again seized with convulsive attacks of a continuous but much weaker character, which in the course of a day or two carried him off. Heroic treatment was not indicated in this later stage.

It has always been a traditional practice to devote much attention to the *primæ viæ*. In 1819 our grandfather devised the first instrument for feeding patients with a tube. This we know from the original letter written to him by the person to whom the invention has been attributed. It will be interesting to hear that in this letter the writer speaks of the process of transfusion. We have had many strikingly rapid recoveries by unloading the intestines in cases of subacute, sometimes almost amounting to typical acute mania, in which abdominal examination has shown the presence of a tumour or a spot dull on percussion and resisting to palpation, and suggesting an accumulation of fæces, although purgatives have produced apparently free and regular actions of the bowels. There is no doubt that in many of these cases the bowel though loaded may remain patent, and liquid stools be passed. But a residue remains in the sacculi of the colon which produces a reflex irritation, or perhaps even a more direct action on the nervous system by absorption into the blood of injurious fæcal degeneratives; and one of our last resorts, and a valuable one, has been the administration of large doses of olive oil, say half a pint by the mouth and a pint of warm olive or linseed oil by the bowel, secured from returning by the insertion of a sponge the size of a fist, to which has been attached

a tape for extracting it after it has been in the rectum some hours. The melting process induces or permits the bowel to exert contractile efforts, and the sacculi are freed from their unwholesome contents. We may add that we find this condition more frequently in women than men.

In some cases we have found the mustard pack most useful, but this requires to be applied for some hours,—in fact, it should not be removed till the patient awakes, which may be after six or seven hours. Since the new rules of the Commissioners limiting the continued use of the pack to two hours, we have not been able to use this remedy, which in careful hands is a powerful one.

We have also frequently used the mustard bath, but the action of this is not so powerful as that of the mustard pack on account of the shorter time to which the patient can be subjected to it. It may be interesting to hear how we use this bath, and we will shortly describe the process.

Take a bath of thirty to forty gallons of water at 99°, and place the patient in it with a sheet and blanket over the bath, the head of the patient alone protruding. Into the foot of the bath pour an infusion of Durban black mustard bran, made by boiling or straining two or three pints of the bran. It is well to protect the genitals by fastening a sponge over them by means of a diaper. It may be necessary to support the patient in the bath to prevent the head going under water, and this can be very conveniently done by placing a round towel across the chest—bringing it under the arms,—the free end being held by an assistant at the head of the bath. The time of immersion may vary from ten minutes to thirty minutes, according to the susceptibility of the skin.

In some cases of acute mania we have had excellent results from the application of croton oil to the scalp after closely cropping the hair. Electricity has not been much used by us, though we have at times found the electro-magnetic machine most useful in hysterical patients refusing food from a delusion that the throat is closed, and so avoiding the use of forcible feeding. We had one remarkable case of a male patient who suffered from catalepsy associated with homicidal impulses. On one occasion he had an attack of the wildest possible fury, when, having in view the instability of his neuro-physical system, it was considered that the application of electro-mag-

netism would act beneficially by diverting the nerve-storm from which he was suffering. The result was that the patient, who had been with us some years and was considered a chronic case, never had another attack, and was discharged a few months afterwards as recovered, and has remained well ever since, and that is now many years ago.

We have had several operations for cancer of the breast, tongue, and testicles, and also one for ovarian tumour, but no mental change has followed these.

We hear much of the physical employment of patients, but we find it impossible to induce the class we have to deal with to undertake anything in the way of manual labour against their will, though occasionally we have patients who will undertake such work from the love of it, or from the nature of the existing delusion, and then we encourage it as much as possible. For some years a patient worked in our shops who sent in his time sheet, and was paid regularly so much an hour. At one time we went to much expense in laying out a garden and building a large greenhouse for the special purpose of interesting the patients in their own work, but we soon found it a hopeless task trying to get them to do anything or take any interest whatever. We have had a pack of foot harriers for about eighty years, and do our best to encourage patients to follow them; but here again, unless a man has a special liking for the sport and exercise, it is most difficult to create any enthusiasm for it, though it ensures a large amount of physical exercise for some. In at least one case, however, an unpromising condition has been converted into recovery by fatigue and restfulness following a heavy day of walking and running.

We have theatrical and other entertainments, besides weekly dances during the colder months, and our band plays twice a week all the year round. We find the majority of patients enjoy these amusements and reunions more than anything. A fair number take a more or less perfunctory interest in cricket and other games, and some few have a very decided liking for bicycle polo. This latter is a really valuable agent, as it needs such skill and direct attention to the game that their mental idiosyncrasies have little scope for action for the time being.

Discussion

At the Meeting of the South-eastern Division, 10th October, 1900.

The President said that the thanks of the Division were due to the Drs. Newington, and especially for the interesting historical paper then read. He invited remarks on a *résumé* which traced the progress of a small asylum from the end of last century until it had attained the splendid position in which they now saw it.

Dr. Mickle said that it was most interesting to learn that the Drs. Newington's Asylum dated from 1792. That was when Pinel began his work. It was necessary to do away with the gross abuses in Paris, but in that very year there was here in Sussex an asylum with no boundary walls, no cells, and nothing at all in the nature of a prison. That was far in advance of anything in existence elsewhere; and perhaps although they had historical facts as to the evil condition of many asylums at that time, yet an erroneous impression must have been given as to the condition of some of them. This particular asylum must have been most salubrious considering the great age attained by some of the patients. It appeared that during the last thirty years very few patients had been brought there through drink, and that of course was what one would expect. Alcoholism was far less frequent now among the upper compared with the lower classes, and the number of victims much greater among the lower classes. They would carry away with them a very pleasant recollection of their visit to such a well-appointed establishment.

Dr. Robert Jones said he was interested in the question of general paralysis, and in the fact that at Ticehnrst they had no women under their care suffering from that disease. Very few ladies of the upper classes were affected with syphilis. With regard to the use of the mustard bath, he thought that they did not make enough use of baths. While in Zurich he witnessed the treatment of patients by the prolonged bath, and sleep was often induced by this means in cases of chronic mania and acute melancholia.

As to manual work, he was much interested in it. He had tried very much to get private patients to do a little gardening, but found great difficulty. He should like to be able to try the method of payment, to see how that worked. He quite agreed with what Dr. Mickle had said respecting drink. Too much was sometimes made of it as a cause of insanity, instead of as a consequence.

Dr. Bower said that he had always looked forward to seeing Ticehurst, which he considered the Mecca of private asylums. As to the causation of insanity by drink, his experience in private asylums was absolutely identical. He never found more than 3 per cent. caused by drink. With regard to the employment of patients, he would suggest that the age of admission to this asylum being rather above the average accounted for the difficulty in getting the patients to employ themselves.

In his asylum the age of admission was very low, and that might have helped him in getting over the difficulty. He agreed with Dr. Mickle that the percentage of recoveries compared well with the age of the admissions. Patients who came to such asylums had previously received every possible means of promoting recovery, and the duration of insanity on admission was consequently very much longer than in cases of patients whose means did not allow of this.

Dr. Ernest White said that, while appreciating all that had been stated, there was one point he should like to go over again, and that was the employment of private patients. At Stone they had 150 private patients, and employed practically all of them, more or less. Some he could not get to work at first, but he sought to employ them all as far as bodily condition would allow. On the cricket ground some fifteen or twenty were employed in dragging a big roller to and fro. Others were employed in gardening in a small way. But he drew a hard and fast line between private and ratepaying patients, though by force of example they got a very good result from private patients. At St. Andrew's Hospital they tried to carry it out, and achieved an excellent result. Another point he had noticed was the long life of general paralytics at this asylum. He agreed with the paper in which it was stated that they must attribute the long life to absence of the surroundings which tend to shorten life in the public asylums. If the general paralytics were kept quiet they would certainly live longer.

The large staff employed at Ticehurst was a great blessing, and all of them wished that they could afford it. They would then adopt the open door system, and the good homelike domesticity characteristic of this institution.

Dr. H. H. NEWINGTON, in reply, acknowledged the compliments paid; but all the encomiums passed upon them as to the present were as nothing to the appreciation of what had been done by their forefathers. They had a history which they had not been able to write before, and they were very glad to have the opportunity of bringing it out, as it did not altogether belong to themselves only. Though undoubtedly an early abolition of restraint occurred here, they did not seek to compare with the work of Dr. Conolly, which he thought had not been valued for the true reason. He was praised for the abolition of restraint; but it was not this which ought to be admired so much as his pluck and determination in doing away with it at short and definite notice in a county asylum with a relatively small staff, where many patients had been made intractable by the abuse of restraint. In regard to Dr. White's remarks about patients' labour, he ventured to express his own opinion that the Association had made a great mistake in opposing the clause for payment of patients in country asylums for work done.

A Plea for Closer Relations between the Medico-Psychological Association and those Medical Men who undertake the Treatment of the Insane in Private Houses.[1]

By ELLIOT DAUNT, M.R.C.S.Eng.

THE subject to which I invite your attention is not of a scientific nature, but it is, I venture to submit, of considerable importance to the gentlemen directly interested, to specialists in mental science, and to the public in general.

I would present for your consideration the desirability of all medical men (other than medical officers of public asylums and licensed houses), who undertake the care and treatment of persons mentally affected or borderland cases, being brought into direct bonds with the Council of the Medico-Psychological Association under an organised system.

In dealing with it I will allude to five classes of persons engaged in psychological work. First, the specialists, psychologists, or neurologists; second, medical superintendents (*a*) of public asylums, (*b*) of licensed houses; third, medical men who, with or without the association of general practice, receive one or more borderland or certified insane cases in their own private houses; fourth, that large number of non-professional ladies who receive these patients, and appoint local practitioners to visit them; fifth, the Commissioners in Lunacy.

In considering this classification, each division occupies a special sphere of influence entitling it to that mutual support and

interchange of experience in matters psychological, such as these periodical meetings afford. I cannot but think that by carrying out the suggestion I advocate the missing link would be supplied, to the great advantage of all the workers in this field of medicine.

I say the missing link because, if you recall the classification I have made, you will see that each class has a recognised position in this Association except the third and fourth, which last, being non-professional, I shall not now consider.

When the election of members to your Council is about to take place, one hears in the proposal for a new member, amongst other qualifications, such remarks as "he would represent such a class as superintendents of public asylums or licensed houses," as the case may be, but I have not found that Class 4 meets with similar recognition. Here, then, is the missing link.

It may be said that the members of that class are so scattered, and are so occupied in general practice, that they could not attend to the duties of the Council; and although some are members of this Association they can hardly be called psychologists, but are more nearly allied to general practitioners. But while many such men only take single patients, and chronic patients by preference, there are some who are not engaged in general practice, and who are yet as devoted to the study of mental science as those embarked in more extended spheres. For my purpose, however, the more heterogeneous this class, the greater is the desirability that they should be brought into direct touch with your Council.

We look to the *first class*, to the specialists, for guidance and instruction in the work we are engaged in. We recognise in the *second class* men whose lives are devoted to the welfare of the afflicted. The *third class* I shall deal with more fully, while the *fourth class*, viz., the non-professional persons, may be passed over without further remark. The Commissioners constitute the *fifth class*, whose duties, thoroughly and pleasantly performed, are of the highest importance.

Let me now revert to the third class, and consider the following queries:

First, is there room for such a class in our Association?

Second, is it desirable to open another door for the treatment of the insane?

Third, is it in the interests of the patients themselves that encouragement should be given to the care of the insane in private houses?

I claim that there is an undoubted demand for the use of the private residence, and submit the demand should meet with serious consideration. Indeed, the Lord Chancellor, in his reception of the deputation in connection with the Lunacy Bill in Parliament this year, clearly admitted that it was reasonable that there should be what I would call a probationary period of treatment for all suitable cases.

Personally I think that period should be a year, and that it should be obligatory on medical men and others receiving such patients to notify reception to the Commissioners, and to send them a report at the end of twelve months, with a statement as to the removal of such patients, which would keep them in touch with the patients, and so avoid any evasion of the law after this probationary period.

Fashion, which rules all things and all beings, does not spare any of the branches of the medical profession, and its workings are shown even in the matter of names; *e.g.*, not long since I was consulted about a borderland case, and I was informed that a certain specialist had been called in, but my informant added, "I had no idea at the time he was a lunacy doctor, I thought he was a neurologist." Yet the case declared itself as one of melancholia, with attempts at suicide and periodical outbreaks of maniacal excitement. Such incidents clearly show the bias of the public in favour of doing everything they possibly can at the onset of mental disorder before facing the inevitable, and in these circumstances, where means are ample, a doctor's home is often sought. We cannot expect the relatives to look with the eye of a psychologist on the patient, and at once agree that certification and admission to an asylum is the best course to adopt.

It would leave my case imperfect if I failed to say something in proof of the desirability of these medical practitioners being organised under your Council. Various advantages would accrue were my suggestion carried out.

In the first place, when somewhat suddenly a wife, husband, parent, brother, or sister is brought face to face with the fact that their relative is mentally afflicted, it is as much our duty to allay the shock they receive as it is to prescribe for the

patient himself; and if a probationary period of residence with a doctor is arranged, it must act beneficially on the relatives in their distress. We must recognise that mental disease is often only an affliction of one organ of the body, requiring a vastly different treatment from that formerly adopted. We have also to recognise the special effect it has on all business relations. If the adoption of early treatment in private care be approved, it surely is of the highest importance it should be carried out under some more efficient system than the present haphazard methods.

The advantage to the patient is more open to question. But in many cases, when symptoms are not clearly defined, it certainly would appear reasonable that, though change from home surroundings is urgently demanded, it would be somewhat precipitate to advise certification, or to associate the patient and his family with asylum environment. That being so, what other course can claim advantage over treatment in the home of a medical man, competent and willing to undertake the responsibility?

It is true that a large number of cases leave no reasonable doubt in the mind of the specialist as to their nature, but there are cases in reference to which it would be to his advantage to allow a certain time to elapse under judicious care and skilled observation before a definite decision has to be arrived at. In such circumstances it would surely prove helpful to be able to refer to a list of medical men which I suggest should be kept by this Association.

The medical superintendents of asylums would benefit by receiving with patients, admitted after having been in private care, careful notes of their medical histories; and they would also find it valuable to know where patients might be sent for change away from asylums when that course is desirable, where treatment might be properly continued and medical records maintained unbroken.

This brings me to the advantages such a system would have relative to the Commissioners in Lunacy, who demand that should it become necessary to place an insane person with anyone for gain, and to curtail his liberty, and to control him, certification must be carried out. I do not discuss the question raised in reference to this point, but urge that the Commissioners should be in a position to know that only medical

men approved by this Association were to receive patients of the class indicated.

The Commissioners cannot desire to hamper anyone engaged in the lawful practice of his profession, but must watch certain houses in the knowledge that private care is extensively and irregularly carried on. They have to observe the laws in the execution of their responsible duties, and it seems to me that my suggestion would be helpful to them, and less irksome to us. Their labours would be considerably diminished were care and vigilance exercised by this Association in enrolling and employing suitable medical men.

I am assured that such an organisation would command the confidence of the public and of the medical profession, and that it would also enhance the income of this Association. I therefore urge that a roll of all medical men willing to receive resident patients should be kept by this Association for the use of those whose advice is sought in cases of insanity; and that only those medical men who are members of this Association, and whose names appear in the roll, should be countenanced by the profession.

(1) Prepared for the Annual Meeting of the Medico-Psychological Association, London, 1900.

Remarks upon our usual Methods of investigating the Pathology of Mental Disease, with some Suggestions for Original Research. By RICHARD R. LEEPER, F.R.C.S.I.

IN directing your attention to the usual histological methods employed in the investigation of cerebral disease, I have the hope that those who are not already active workers in the field of pathological neurology may be stimulated to become skilled observers, and to encourage others who, like myself, have long been deterred from undertaking work of this character under the misapprehension that such investigations were profitless or impossible to any but the favoured workers in large and costly laboratories.

One of the reasons why less general interest is taken in this

branch of pathological work lies in the fact that most of the histological methods employed are of unusual complexity, and make a greater demand upon the worker's time and patience than those employed in the study of physical disease. It is related of a famous Dublin surgeon of fifty years ago, that his description of a tumour was confined to the statement that "it was one of those lumps." Now-a-days the surgeon has a descriptive language of his own, based upon the microscopical appearances of the neoplasms which his knife has removed; and we who study the diseases of the mind have likewise amassed a more definite pathology whereon to found a more enlightened treatment of the cases committed to our care.

The general pathologist is familiar with such appearances as that produced by the cancer cell and the tubercle bacillus, and he therefore assumes that he has clearly established his right to adopt a more confident tone in speaking of the physical diseases than he whose province it becomes to investigate the affections of the mind. His assurance may be partially warranted, but the net practical results to humanity of our increase in general pathological knowledge are, in many cases, as negative as those discoverable from the diseased brains and cords of the persons who die in asylums.

The common histological methods, as you are aware, by which we endeavour to see most of the results of cerebral disease, are the Nissl method, the Golgi method and its modifications, the Weigert method, and the "fresh" method of Bevan Lewis. Marchi's and Weigert-Pal's methods are of use in tracing strands of nerve-fibres, and are of value, as much for demonstrating the selective action and altered chemical reactions produced by disease in nervous structures, as they are as purely histological processes. To enable us to see clearly all the constituent parts of a nerve-cell, its dendrons, gemmulæ, and intra-cellular structure, no one single method exists. It requires one method to show the gemmulæ, another the chromophilic particles called the Nissl-bodies, and yet another to trace the axis-cylinder through any long extent of brain or cord.

The cortical substance is excessively difficult to stain so as to differentiate its component parts, and the well-known selective action of its elements for different reagents is known to you all. Thus we see that methylene blue which readily

stains the arterioles and capillaries, and is a most satisfactory reagent in connection with their examination, is not quite so reliable as a means of staining the Nissl-bodies in nerve-cells as toluidin blue, an almost identical aniline dye.

Dyes of the penetrative power of fuchsin and hæmatoxylin, one would fancy would enable us to see the gemmulæ which are so numerous in the dendrons of the cell processes; yet we know that they are powerless to bring out those structures which require the *intra vitam* method of Ehrlich to save them from being classified as due to manipulation, whilst the methods of Golgi lay just claim to be the means of their discovery, and have enabled us to see much which was before invisible.

A good example of the selective affinity of the nervous structures for different reagents is shown by the fact of the choice of degenerated nerve-fibres for osmium, the healthy fibres being protected by their previous impregnation by chrome from the action of this substance. Such selective action is still further proved to us by the toxins of disease, which seem to affect the medulla in rabies, the cord and cortex and blood-vessels in venereal disease, while tetanus toxin seems to select the nucleus of origin of the fifth nerve as *locale* from which emanate its principal and characteristic phenomena. If we contrast the symptoms of mania with those of melancholia, we may be tempted to draw the conclusion that as the symptoms differ so widely, so may the causes which produced them.

The symptoms of melancholia, spoken of generally, may be said to indicate a more or less profound disturbance of the sensory cortex and nerve paths; and in some cases, if not in all, the psychalgic condition may depend upon the development of a toxin which seizes upon the sensory cortex and conductors as does the poison, say of lead, seize upon the motor nerve mechanism of the hand.

With an increased knowledge of biochemical change our histological methods will have a twofold object; and each section of diseased nerve tissue ought to have a twofold instructive purpose: it not alone representing the visible alterations produced by the disease, but it ought also to convey to us a knowledge of those chemical changes which are alike inseparable from it. Time would not permit me to do more

than refer to the various methods and modifications of methods at present used in the examination of the brain. One is almost appalled at their number, and the time which has been spent in their elaboration, their number and complexity almost making one think that the originators of many were carried away by the æsthetic desire to produce colour effects rather than an earnest determination to investigate the causation and processes of disease.

The investigator has ample choice in the selection of methods of staining, and for my own work I prefer the simplest and most economical; and if my results are not quite satisfactory I can, at all events, elicit from my sections the stereotyped and classical cell changes found in the brains of the insane.

To the asylum worker the hardening by means of formalin, giving as it does such rapid and excellent results, is a great boon; its wonderful penetrative power on the brain tissue, and the rapid hardening, without shrinkage of the cells, which it produces, bring the investigation of brain cells and their structure within the reach of all.

By hardening in formalin and applying the Nissl method we are enabled to rapidly examine the cortex, basal ganglia, and cord, cutting our sections by the freezing method in at least three days' time, and any gross cellular peculiarities ought to be made apparent to us by its use. This, of course, is too crude and simple a method, and inexhaustive, and would in no sense replace elaborate work; but if carried out in all cases of death in asylums, we should shortly secure a wider knowledge of the cellular changes in those who succumb to acute mental disease in our institutions, and gain much practical knowledge of the causation and effects of the diseases we treat. In working by this method we can save much time, and for staining with basic dyes the result ought to be perfect, as the tissues are unchanged in colour when hardened in formalin.

Two micro-photographs of sections cut and hardened by these comparatively simple methods show—(1) Well-marked chromatolysis, displacement of nucleus, and cellular destruction from a case of chronic delusional insanity with hallucinations of sight. (2) Extensive impregnation by pigments of the basal ganglia cells from the same case.

Pigmentary and degenerative changes can often be seen in thin sections without the aid of intense staining reagents; and

a section treated by diverse chemical processes is not so satisfactory as one unpigmented, save by its own natural constituent particles.

The methods which depend upon the precipitation of the salts of silver, mercury, and copper, platinum, and gold in the tissues are more valuable to the nerve pathologist in their power of exhibiting the selective affinities of the tissues for these different salts, than in their power to elucidate minute cellular changes. Their power of producing the so-called "varicose hypertrophies" of the dendrons are not free from the suspicion of being artefacts due to the lumpy impregnation of the protoplasm by metallic salts. The cells are very unevenly impregnated—one being stained, and its neighbour left untouched by the Golgi methods,—which is remarkable, and may be explained when our knowledge of the chemical decompositions produced grows wider. We can, therefore, dismiss them from our consideration, for though essential and most valuable aids to the anatomical student, to the worker in the field of pathological neurology they are found to be so unsatisfactory, that it is "hardly worth while to go through so much to know so little."

In the study of chemical changes produced by disease of the nervous system, Halliburton and others have opened a wider channel for research in the pathology of mental diseases. From the tracing of nerve-fibres and the structure of nerve-cells we have little more to learn in comparison with what may be revealed to us by a greater knowledge of the chemical constituents and vital actions of the proteids, and of the general bio-chemical changes which are inseparable from life. If ever a pathological laboratory is established in connection with our Irish asylums, I earnestly hope that work in this direction may be undertaken there.

Psycho-degenerated cases are far too numerous in asylums, and form a text for many, from which to preach sermons on our inactivity and therapeutic neglect; our efforts must therefore be directed to the better understanding of the causes of nerve-cell and fibre degeneration.

Cholin, normally found in the alimentary canal from the bile changes occurring there, has recently been shown by Mott to exist in the cerebro-spinal fluid of general paralytics as a result of the decomposition of lecithin. Cholin is robbed of

its poisonous properties by the action of micro-organisms in the process of digestion. May we not hope for the discovery of means by which auto-intoxication, and continuous pernicious action of the products of nerve degeneration, may be minimised or prevented? Cholin injected intra-venously causes a fall of blood-pressure due to dilatation of peripheral vessels, which may account for the characteristic flabby pulse of the general paralytic.

If one examines the brain of any chronic case of insanity, pigmentary change and degeneration of its cellular elements is generally apparent. Calcareous change is evident also, as you are aware, in most senile cases.

In the presence of masses of brain sand, pigmentary deposits, and cellular changes found in the choroid plexus and elsewhere, connected with the cerebral vascular network, we can but dimly discover the traces of a nerve storm which, mayhap, has been raging within the cranial contents for years, and has been quieted only by their partial destruction; the ebb and flow have marked their alternation by depositions of the products of abnormal or increased bio-chemical changes along the vascular channels of the brain.

Many appearances said to be pathological are found in sane brains, hence the need of numbers of trained histological workers arriving at the same results if we are to be protected from hasty inferences and individually unrecognised details of structure.

In the study of the results of disease, and of the secretions of the ductless glands, and their influence upon life and cerebration, lies many a fact which awaits our wider knowledge of the chemistry of the proteids for its elucidation.

Investigations and experiments which have for their aim the increase of our knowledge seem to promise more of practical result than the study of abstract psychology, a study which, after all, is often but metaphysical speculation clothed in a vocabulary as novel as the ideas it endeavours to express, and from which it is often difficult to extract a single practical or comforting fact.

Discussion

At the meeting of the Irish Division, June 28th, 1900.

Dr. Dawson said he was pleased that they had one more advocate in a cause which some of them had so long been supporting. Although he quite agreed

with Dr. Leeper as to the importance of every one who can possibly manage it taking up this work, he thought, for a person who could not devote a great deal of time to histology, his researches are more for his own benefit than for science at large. In accordance with the resolution which they passed on a former occasion, he advocated the establishment of a central laboratory in Ireland.

Dr. LEEPER, in reply to Dr. Rambaut, who spoke of the altered size of the cells consequent on freezing, said that the freezing method was possibly a somewhat crude and rapid means of enabling one to take an impression of the brain cells, but that it ought to be done.

Dr. CONOLLY NORMAN, while complimenting Dr. Leeper on his work, agreed with Dr. Rambaut that the freezing method cannot now be regarded as entirely satisfactory, and advocated the employment of specialists in these investigations. It was only by those who devote their whole and sole attention to the subject that discoveries can be made. He urged that more attention should be paid to clinical observations, for, without clinical work, he did not see that any good could be attained. The matter was of vast importance to their patients, and he was certain that, so long as clinical work remains in its present backward state, there will be a distinct loss to pure pathology.

Dr. DONELAN said that it was impossible that general progress in pathology could be made without adequate provision for research. Still he would not discourage individual efforts. In other branches of science the value of individual workers is acknowledged, and simple methods, such as Dr. Leeper has described, were all-important in keeping up a general interest in the subject and in giving a lead to laboratory workers.

Criminal Responsibility.

By HENRY LYLE WINTER, M.D., Associate in Anthropology, Pathological Institute of the New York State Hospitals, Instructor in Clinical Neurology in the Medical School of the New York University (University and Bellevue Hospital Medical College).

MR. WHITEWAY'S paper on this subject in the October (1899) issue of the JOURNAL, and Dr. Mercier's comments thereon in a later (April, 1900) number, are each of considerable interest.

Mr. Whiteway's article especially appeals as an expression of the contemplation by the legal mind of the personality of the accused, instead of the usual mere view of the crime.

From the tenor of his remarks Mr. Whiteway has, however, failed to realise the direction in which the present day criminological studies tend to lead in reference to our views upon the subject of responsibility.

Dr. Mercier, while probably enjoying full realisation of future probabilities, has neglected that feature, confining himself principally to answering the arguments advanced by Mr. Whiteway on the specific cases cited by him. In the particular

case cited Mr. Whiteway has undoubtedly been in error, and Mercier's negative views, so far as they apply, are in strict accord with the present knowledge of the influences of heredity upon those given to criminal practices. From my own observations I believe in a lessened power of moral resistance in those of neuropathic family history. This is, however, only a belief, and I am not justified at present in presenting a statement that such is positively the case, and so far as I know, no one else would be so justified.

In reference to the presence of beginning paresis in prisons, that is an old question, and one which has been the subject of considerable comment. It is, however, a question largely apart from the main one of responsibility, as we understand it at present, and is only to be employed when we come to generalise on the direction in which neuropathic studies of all classes are leading. There is no question, nor has there ever been, of the legal status of the general paretic, and the appearance of such unfortunates in prison is merely an indication that the judiciary does not give sufficient attention to the possibility of the occurrence of such conditions, or that the medical officer of the prison is so encumbered by routine that sufficient attention to the individual to permit of early diagnosis is impossible. Of course the case cited by Mr. Whiteway, where corporal punishment was inflicted upon a paretic, was outrageous, but the remedy in a specified case is obvious, and does not call for general condemnation.

The early diagnosis of paresis is not particularly difficult, or, at least, a tentative diagnosis is sufficiently easy to prevent any great injustice being done this class of unfortunates.

While criminologists have presented a number of deductions which to the more conservative have appeared unjustified by the data, I do not think that I am exceeding my position by saying that one thing appears to have been correctly stated which meets with fairly general approval,—that is, that very many, and perhaps the majority of criminals differ almost as markedly in their general mental and physical make-up from the everyday citizen as do the insane.

While we are unfortunate in not possessing a definite normal standard, we find that anatomical and physiological anomalies, and peculiar mental attitudes, exist so much more frequently in criminals than in the non-criminal, that we are justified in

taking this stand, if we admit that our position remains to be positively proven. It appears that the extremely conservative in medical circles, and a large majority of the legal profession, will not admit this position to be tenable, from fear that it is inimical to society, in that it would make the punishment of the criminal more difficult.

Such a contention is natural, but is indicative of an insufficient survey of the grounds. The only danger lies in the acceptance of these views without seeing the direction in which they tend. For example, Mr. Whiteway would accept this position, or a part of it, and would apply it thus early to a specific case, claiming immunity from consequences for a murderess with a neuropathic history. This is obviously premature, and while it is detrimental to the efforts of the criminologist, in one sense it is to be well received, because it points out the fact that the legal mind may be brought to recognise the individuality of the criminal, and not confine its attention entirely to the crime. Such an attitude on the part of the legal profession would be an immense aid to criminological investigation, and would ultimately benefit society. The difficulty is to convince all those interested in the subject that the ideas advanced so far are merely for use as a working hypothesis, and are not the final judgment of a school.

When the physical anthropologist concerns himself with the criminal class he is immediately confronted by the statement that crime is a social condition, and this is proven by the further statement that what is crime in one country is not in another. This is true, but the advocates of such theory fail to realise that crime and the criminal can possibly be separated. It appears to me to be perfectly logical to draw a distinct line between the criminal act and the criminal actor, and to admit that the former is social, and hypothecate that the latter is biological.

With the admission of personal variation to the extent of variation in responsibility we are brought face to face with one condition in reference to responsibility, and one which appears to me to be very definite, viz., that *all men are responsible to society*. In taking this position on the grounds of variation, it must be added that society cannot *punish*, it can only *protect itself*. This view was taken by Ferri some years ago, and it is the only possible outcome of criminological studies, provided

the present views are proven. Of course there is a time in the life of every one when punishment must be the consequence of bad conduct, and this applies to the committed insane as well as to other classes. It is, however, only as a detail of personal care that such punishment should be meted out.

If it is accepted that the trend of criminological studies is in the direction above pointed out, it means a proper adjustment of our methods of legal procedure; but I cannot see how it in the least endangers society. Certainly such an outcome seems probable, and, in justice, every effort should be made to prove the hypothesis. The privileges of society carry correlative responsibilities, which are in danger of being largely overlooked in society's view of the criminal question.

The one idea which will lead to the final decision, and which should always be kept in mind by jurists and medical men, is the individuality of the criminal. This idea is sometimes endangered by the tendency to apply the methods of physical anthropology primarily to classes. The criminologist who, for example, studies murders as a class, is on the wrong track, while he who investigates the peculiarities of a murderer is keeping the main idea in view. If he is subsequently able to classify each murderer and produce a type, well and good, though such a classification is unnecessary for the purposes at present advanced. Our immediate interest centres in traits, not types.

Mitral and Tricuspid Incompetence. By W. J. PENFOLD, M.B., C.M., ED.

THE imperfect way in which the pathologist has been accustomed to test the competence of the mitral and tricuspid valves seems to be at variance with the careful and systematic observation given to other parts.

Recently I have applied the water test as follows, and have found it very satisfactory so far. I require for the purpose a conical nozzle about four inches long, having a diameter half an inch at one end and two inches at the other; this is attached to the tap by means of a strong india-rubber tube, having at the

tap end a brass bulb containing within it a conical india-rubber washer which will fit over any ordinary tap. I open the auricles and wash the clots out of the ventricles, through the pulmonary artery or aorta, by introducing the nozzle into the auriculo-ventricular orifices; I then, if wishing to test the mitral valve for example, introduce the nozzle into the left ventricle through the aortic orifice beyond the cusps, and then, looking at the valve through the widely opened left auricle, turn on the tap and watch for any leakage; in the case of the tricuspid valve the nozzle is introduced through the pulmonary artery, and the valve watched through the right auricle. We must be careful that as soon as the valve margins are apposed we turn off the tap, or forcible dilatation of the cavities will occur, and the test be vitiated. The advantages of this method are as follows:—The ventricular wall is uninjured, the cavity is full, and the different parts of its walls are related to one another as during life; it is easily applied, and the valves are fully seen during its application.

Since introducing this method I have examined post mortem twenty-six hearts. In 16 per cent., that is to say in four cases, mitral incompetence was present; in 92 per cent., that is to say twenty-four cases, tricuspid incompetence was present, so that I conclude that mitral incompetence is much rarer than tricuspid incompetence, and that the latter, therefore, cannot be usually due to the former, as is commonly stated; that tricuspid incompetence, even in moderate degrees, is consistent with perfect health, and may be looked upon as physiological.

I have observed in applying the test that the mitral cusps show to some extent a surface apposition, while in the case of the tricuspid cusps an almost purely marginal apposition is the rule. I think this fact accounts for the frequency and the great degree of tricuspid incompetence. In one of the mitral incompetence cases the regurgitation was marked, while in the three others it was slight. In 20 per cent. of the tricuspid incompetence cases it was slight, in the remainder it was well marked, and in some of the latter excessively pronounced.

In all four cases of mitral incompetence the tricuspid valve was also incompetent. Three of the twenty-six cases had aortic incompetence with the water test; two of these had competent mitral valves, one an incompetent one. The pulmonary valve was competent and healthy in every case. Four-

teen aortic valves showed chronic changes, varying from vegetations on the one hand to slight patchy chronic thickening on the other, the latter causing appreciable shortening in only a few cases. The mitral valve showed slight thickening in fifteen cases, which usually took the form of two or three patches at the base of its aortic cusp, and caused appreciable shortening in only one case, which was the case of marked mitral incompetence. The tricuspid valve showed in five cases thickening of a lumpy, smooth, marginal character, not of an atheromatous nature. In reference to the size of the orifices I may state that the mitral averaged by cone measurement 1·4 inches in diameter, the tricuspid 1·85 inches.

It has been contended that in the process of drying, an accumulation of blood, taking place in a given cavity, will cause a dilatation of the orifices in the walls of the cavity, and this has been said to operate in the case of the mitral, but more especially in the case of the tricuspid orifice.

Now in the four cases of mitral incompetence the average size was 1·375 inches, that is ·025 less than my general average, so that it does not appear that the incompetence was due to any special dilatation in these cases; in one of the cases of mitral incompetence the measurement was only 1·1 inches; here the cusps showed no evidence of old endocarditis, but simply seemed smaller than usual. As to the tricuspid orifice, in one of the two competent cases it measured 1·9 inches, which is greater by 0·5 than my average, and by ·25 than that given by Hamilton. In the other case of competence it was 1·6 inches. In one case of 1·2 inches the valve was incompetent, which measurement is considerably smaller than either of the competent cases.

As to the deposition of clot in the various chambers, I do not give the exact amounts, as I did not commence to measure the clots until recently; I therefore use the terms small, moderate, or great in amount, which give an approximate idea.

The right ventricle was empty, or practically so, in six cases, the left ventricle in thirteen; the right ventricle contained a small amount of clot in eleven cases, the left ventricle in nine.

Moderate amounts of clot were found in six right ventricles and two left ventricles. A large amount of clot was found in

two right ventricles and one left ventricle ; in one case all the chambers were filled with dark fluid blood.

The two cases of tricuspid competence had each the right ventricle empty, but four others in the series had also empty right ventricles with incompetent tricuspid valves.

The left ventricle was found empty, or practically so, in thirteen cases ; but of the four cases of mitral incompetence one was contained in the thirteen, while the other three had only slight amounts of clot, so that the element of distension from the determination of blood to the chambers could not have operated in these cases.

On the other hand, the left ventricle, which was found distended with post-mortem clot, had a competent mitral valve ; this was a case of hæmatoporphyrinuria.

Apart from the heart condition, one naturally inquires after the condition of the lungs, since it is commonly believed that obstructive lung disease will give a tricuspid incompetence. Phthisis was present in ten cases, broncho-pneumonia (or hypostatic pneumonia with genuine consolidation) was present in six cases, hydrothorax in one, and emphysema in one—making a total of eighteen.

This large proportion of obstructive lung disease may account for a few of the slighter cases of tricuspid incompetence, but not for the more marked, since in both cases of competent tricuspids advanced phthisis was present, while in the eight cases free from such obstructive disease an incompetent tricuspid was found in each case. So much for the pathological side of my position.

One naturally asks, How does clinical teaching coincide with it? I reply, Not at all, but I think clinical facts do.

We will first consider the question of murmurs ; by a murmur I understand any definite impurity of the cardiac sounds. I do not distinguish between impurity and murmur, since I believe it is a distinction without any pathological basis.

I believe this for two reasons. Firstly, on exercising a patient with a cardiac impurity a murmur uniformly appears, having its point of maximum intensity in the position of the impurity ; and secondly, because the distinction between them is a purely arbitrary one, the one passing insensibly into the other.

Twenty out of my twenty-six cases had their hearts physically examined during life ; of the four cases of mitral incompetence

only two were examined during life, and in both a mitral systolic murmur was found. An examination was not undertaken in the other cases owing to their mental state. Nine cases, found post mortem to have competent mitral valves, had during life a mitral systolic murmur or impurity; these murmurs could not have arisen, then, at the mitral valve, but must have been due to the incompetence of the tricuspid, which incompetence was present in every case, and the murmur so produced was propagated to the apex-beat.

Four of the cases had systolic tricuspid murmurs during life, and post mortem the tricuspid valve was found incompetent in every case. In one of the cases it was accompanied by a mitral incompetence, as decided by the water test, so that fourteen cases out of the twenty showed one or more murmurs in the region extending from the lower end of the sternum to the apex-beat.

As results stand, systolic tricuspid murmurs were present only with tricuspid incompetence, while in the eleven cases of mitral systolic murmurs nine of the mitral valves were found competent after death.

I am, therefore, bound to conclude that murmurs heard over the apex-beat are not of necessity mitral, but are even more frequently tricuspid, and *I would define the tricuspid area as the region between the lower end of the body of the sternum and the apex-beat.*

Such being the case, the great frequency of apex-beat murmurs or impurities would tend to support the frequency of the tricuspid incompetence, as shown in the twenty-six cases I have examined post mortem.

We have seen that fourteen out of the twenty cases showed murmurs during life in our "*New Tricuspid Area*," that is to say, 70 per cent. of the twenty cases. Eighteen showed incompetence of the tricuspid valve post mortem—that is to say, 90 per cent.

How do we account for this discrepancy between clinical and pathological results? All the hearts were examined in the recumbent position, and when, consequently, the heart-sounds were soft; and I think it is not to be wondered at if occasional slight impurities escaped observation, more especially when we consider that the patients were insane. In this connection I might say it is necessary on auscultating the heart to examine

every square inch of the præcordia, as impurities are very frequently circumscribed in their extent, and therefore easily missed. On the other hand, it may be that there is a slight relaxation of the valves in the process of death, with a consequently excessive number of cases of incompetent valves found post mortem. In this case, however, the incompetence would probably take the form of a fine jet, similar to what one would get from a hypodermic needle.

Aortic diastolic murmurs were heard during life in three out of the twenty cases, and aortic incompetence was found, in these three cases *only*, after death.

I shall now give the results of palpation and auscultation of 148 hearts of new patients consecutively admitted into the Northumberland County Asylum.

Fifty-nine systolic mitral murmurs were present, and thirty-eight tricuspid systolic; in seventeen of the latter the tricuspid systolic was found without a mitral systolic being present. Since the existence of a mitral incompetence practically implies a co-existent tricuspid incompetence, as seen from our post-mortems, then, as far as murmurs go, between 52 and 53 per cent. of the 148 cases showed tricuspid incompetence. Systolic thrills of varying degree were present in forty-one cases. In eleven of these latter no murmurs were found along the base of the cardiac dulness or over any other part of the heart. I think it is probable that the eleven systolic thrills present without any murmurs were due to tricuspid incompetence also. This, however, is doubtful.

The total cases of tricuspid incompetence, indicated by the above murmurs, are still smaller than the results obtained from the clinical examination of the twenty cases in which I made a post-mortem examination, but the difference is not excessive.

The other clinical indications of mitral and tricuspid incompetence are, in addition to the so-called characteristic murmurs, which we have already dealt with, phenomena arising by back pressure from such incompetence. Systemic back-pressure phenomena are found almost uniformly in mitral disease with failing compensation, which fact is said to be due to a secondary incompetence of the tricuspid valve. Back-pressure phenomena of a pulmonary character are described as arising directly from mitral incompetence, and their presence is taken to be an indi-

cation that the valvular lesion is mitral. There are some difficulties in accepting these teachings with confidence.

First of all, a pulmonary valvular incompetence arising in the adult is practically an unknown condition, but it is surely reasonable to suppose that a secondary tricuspid incompetence would be preceded, in some cases at least, by a pulmonary. Secondly, back-pressure phenomena affecting the lungs may quite reasonably point to a systemic engorgement, since the bronchial veins open, one into the vena azygos minor superior, the other into the vena azygos major, so that their blood enters the right heart.

Again, since making up my statistics I have had one case of tricuspid competence with a typical chronic venous engorgement of the liver, so that we must not conclude too readily that venous engorgement implies valvular incompetence.

On the other hand, if we get lung back-pressure phenomena, such as those of chronic bronchitis without dropsy of the legs or belly, portal congestion, or albuminuria, together with a mitral systolic murmur, we might reasonably suspect a mitral incompetence. I have not had any such cases on the post-mortem table since I commenced to use this method.

Dyspnœa is found in both lesions, so that it is of little value in differentiation. As to the venous pulse, I might remark it is not uncommon in health, and it would undoubtedly be much more common were it not for the muscular fibres embracing the opening of the superior vena cava, and for the jugular valves in the root of the neck.

A word about the arterial pulse: In the 148 cases only thirteen showed irregularity of the pulse, so that evidently this is a much graver departure from health than the presence of a thrill or murmur over the apex-beat, or in the tricuspid area. One naturally asks, Is the irregularity of the pulse of any use in differentiating between mitral and tricuspid lesions? In nine cases out of the thirteen a systolic apex-beat murmur was present, in three of these along with a tricuspid systolic; in two of the thirteen cases a systolic apex-beat thrill only was present; in one a systolic tricuspid murmur only; and in one case neither thrill nor murmur. The pulse was completely examined and recorded in only two of the cases of mitral incompetence demonstrated post mortem, and in both of these the pulse was irregular, while in grave tricuspid incompetence cases it was

found regular. These facts seem to point to mitral disease as being the usual cause of irregularity of the arterial pulse.

Again, thirteen in 148 constitutes about 9 per cent., while the mitral incompetence cases in the post-mortem series were found to constitute 16 per cent. The proximity of these numbers cannot fail to strike one.

The great objection against the test has been that the muscular rings help to maintain the size of the orifices; that these rings after death lose their tone, and are consequently somewhat dilated. My reply to this is, if we cut from the apex of the aortic cusp of the mitral valve straight down to the fibrous ring to which it is attached, we will find that the muscular ring in this position varies from $\frac{1}{32}$ to $\frac{1}{16}$ of an inch in thickness, so that its action must be trifling when called upon to withstand the wall of the ventricle. Again, if we admit for a moment that apex-beat murmurs are mitral only, we would expect to find, owing to this dilation after death, a greater incompetence than these murmurs would even lead us to suppose existed during life; but we usually find no incompetence of the mitral valve. Further, an impartial comparison of my post-mortem results with clinical observations, admitting that apex-beat murmurs may be tricuspid in origin, would tend to show that any error present in the method is slight. It has been suggested to me that the test would be more valuable were a manometer introduced into the nozzle, and the valves tested with their respective *intra vitam* pressures. The objection to this is that increase of the pressure after death would be synchronous with a forcible dilatation of the ventricle, and therefore of the orifice, while in life it is synchronous with a contraction of the cavity.

I may state my general results:

FIRSTLY.—The tricuspid area extends from the lower end of the body of the sternum to the apex-beat.

SECONDLY.—Tricuspid incompetence occurs in the majority of men, and may be looked upon as physiological.

THIRDLY.—Mitral disease is comparatively rare, and rarely causes a secondary tricuspid incompetence.

FOURTHLY.—Lung symptoms of cardiac origin—as, for example, those of bronchitis—may be explained by a systemic back pressure through the bronchial veins, and this with a perfectly competent mitral valve.

FIFTHLY.—If lung symptoms, without any other evidence of systemic back pressure, co-exist with an apex-beat, systolic murmur, and irregular arterial pulse, mitral incompetence is probably superadded to the already existing tricuspid incompetence.

Before closing I must take this opportunity of thanking Dr. McDowall for the facilities he has placed at my disposal for conducting this research, and also for his encouragement and criticism.

DISCUSSION

At the Meeting of the Northern Division on October 3rd, 1900.

Dr. MCDOWALL said that while Dr. Penfold's paper was highly technical and extremely difficult to follow, on account of the constant occurrence of somewhat similar names, yet he himself had seen the work carried out, and noted the remarkable results. He would not refer to the causes of heart disease, several of which were still being discussed by competent men; or the causes of the various murmurs of the heart, regarding which certain of the greatest medical authorities were not at all unanimous; but he came to the absolute facts observed by Dr. Penfold in the pathological room. He regretted that Dr. Penfold could not then show his instrument in operation. All those present accustomed to observe patients in asylums must have been struck by the extreme prevalence of what he might call mitral systolic murmurs. Whilst he was quite prepared to support Dr. Penfold's explanation of the phenomena, he was sure that their colleagues would find it extremely interesting to follow out in their own asylums the conditions of the mitral and tricuspid orifices by means of Dr. Penfold's apparatus. He was sure that Dr. Penfold would be placing them all under a debt of gratitude if he would continue this particular work; but at the same time he would suggest that Dr. Penfold should adopt more scientific methods of ascertaining the amount of pressure used. He ventured to say that Dr. Penfold would be the first himself to admit that at the present time the water pressure employed was not sufficiently under control, and that in future observations it should be recorded with exactness. The pressure applied might sometimes be excessive; and though he must admit that very excessive pressure might be applied with impunity to the mitral valves and no leakage occur, yet when excessive pressure was applied to the tricuspid valves, they leaked with great readiness.

The CHAIRMAN.—We are very much obliged to Dr. Penfold for his valuable paper. I am sorry he has now left our specialty, but I shall be very pleased to give him every opportunity here to continue his researches.

Clinical Notes and Cases.

The Method of Artificial Feeding advocated by Dr. Newth, followed by Gangrene of the Lung in two cases. By D. F. RAMBAUT, M.D., Dublin.

IN the *Journal of Mental Science* for October of last year, Dr. Newth drew attention to a method of artificial feeding

not generally known. For this method, which excludes œsophageal tubes and other appliances, he claims that it is so simple and easy that anyone can employ it. He adds, "It is also perfectly successful, and has never been attended with the slightest unpleasant or untoward consequences." Briefly, liquid food is poured into the distended cheek of the patient, and from thence it trickles down the throat. Dr. Newth feels sure that if this method were generally known, and had a fair trial, the œsophageal tube would be little heard of in the future. He also states, as an objection to the use of the stomach-pump, that he has noticed that patients fed with it are liable to contract gangrene of the lung.

Stimulated by the success claimed for this method, an attempt was made to employ it in the Richmond Asylum, in feeding two cases of acute melancholia, A— and B—, who had been nourished for five and eight months respectively by means of the œsophageal tube.

A—, admitted to the Richmond Asylum on the 29th April, 1899, was a small, ill-nourished, elderly man, who suffered from melancholia of an acute type. On 13th May, or a fortnight after his admission, it became necessary to feed him, and the nasal tube was employed. On this date his weight was 7 stones 10 lbs. From May, 1899, to October, 1899, he was fed by a tube either through the nose or mouth, except on seven occasions when he took his meal of his own accord. During the five months he lost only three pounds in weight. On the 15th October, 1899, the method of feeding advocated by Dr. Newth was first attempted. On 23rd October, on physical examination he was found to be suffering from pneumonia. He died on the 25th of October.

Post-mortem.—There was found in the lower lobe of the right lung a cavity about the size of a pigeon's egg, with irregular, ragged, shreddy walls of a green-black colour, containing greenish and most foul-smelling fluid. The lung tissue around the cavity was in a state of great congestion, while that portion lying around the zone of congestion was œdematous. The lower lobe of the left lung contained three gangrenous cavities similar to that in the lower lobe of the right. The lung substance surrounding these was in a state of consolidation.

B—, the second case, was admitted to the Richmond Asylum on the 16th February, 1899, suffering from acute melancholia. On February 18th, artificial feeding by tube was commenced, and continued to the 15th October, 1899, during which time his weight fell from 12 stones 3 lbs. to 10 stones 4 lbs. On the 15th October the method recommended by Dr. Newth was adopted in this case also, and continued for some weeks with an apparent success at first; but during the

last week in November physical signs of pneumonia were discovered, and he died on the 2nd of December.

Post-mortem.—It was found that the lower lobe of the left lung was almost all gangrenous. On section of the lower and middle lobes of the right lung an irregular cavity was found, about the size of an orange. This ragged-walled, malodorous cavity implicated a portion of both these lobes. Situated at a lower level in the lower lobe there was another large gangrenous cavity. The whole of the surrounding lung tissue of the middle and lower lobes was in a state of consolidation. In neither of these cases could the typical sputum, with its three characteristic layers, be obtained. Nothing pointed to gangrene of the lungs except the physical signs of pneumonia, and the unmistakable and never-to-be-forgotten fœtor of the breath.

Perhaps in these cases we had the predisposing element of diminished tissue resistance present in some degree. Nevertheless, I think the probability is very high that the real cause is to be found in the foreign particles introduced in the process of artificial feeding. Gangrene of the lung, it is well known, is a frequent sequel of aspiration pneumonia. The mode of distribution of the gangrenous foci points strongly to the entrance of the putrefactive organisms by the air-passages; and the duration of time which elapsed between the adoption of the new method of feeding and the appearance of the pneumonic process, I think, makes it extremely probable that the new method was to blame. B— being a rather well-nourished young man, weighing 11 st. 3 lbs., lasted longer than A—, who was a feeble elderly man, and consequently succumbed more rapidly.

In the records of 600 autopsies made by me in the Richmond Asylum, I find that gangrene of the lung was the cause of death in eight instances—twice in general paralytics, three times in epileptics, and three times in cases of acute melancholia. Two of these last are the cases to which I have already referred. The fact that it occurs with greater frequency in general paralytics and epileptics, certainly makes one incline towards the hypothesis of the dependence of the disease on the introduction of foreign particles.

I think the dangers of the tube are exaggerated, and probably the evils attributed to it might be accounted for, in many cases, by the attempts to feed without its aid, before its use is resorted to.

In the cases I have brought forward, A— had lost no ground physically in the five months during which he was fed by the tube, and B— was fairly strong after eight months of artificial feeding. After the change of method lung trouble rapidly supervened in each case. I think it right to record these cases as a warning to anybody who may intend to adopt the method of Dr. Newth, for the experience of it in the Richmond Asylum does not justify his statement that it is "so simple and easy that anyone can employ it. It is also perfectly successful, and has never been attended with the slightest unpleasant or untoward consequences."

A Fatal Case of Poisoning by Jeyes' Fluid. By THOMAS STEELE SHELDON, M.B.,Lond.

ACCORDING to Squire this fluid is composed of tar oils, consisting largely of cresols, saponified with resin and alkali. It is sold in tins labelled in large red letters "this fluid is non-poisonous," to show its harmlessness. A representative of the manufacturers, who calls upon us, drinks a certain quantity of it, and in a pamphlet issued by the makers, attention is drawn to a case in which a large amount was taken without serious consequences.

The fluid has been used by us for various purposes in the wards, and as a rule has been kept under lock and key, but in the case to be related the nurse had left the tin in a scullery opening into the day-room; when the accident happened a trustworthy, but deaf, patient was making preparations in the scullery for the ward tea, and the door was open.

A. B—, æt. 49, had been in the asylum for five years, having been admitted with a history of mild chronic melancholia; she was of a strongly suicidal tendency, and was ordered to be kept under constant observation from the very first. On September 1st she was in her usual place at the tea-table; another patient suddenly became violent, and the nurse in charge of A. B. rendered assistance. When about five minutes afterwards the nurse again looked for A. B., she was in the same place at table, but almost immediately fell down in an unconscious state. Dr. Laing shortly afterwards found A. B. with livid face, breathing stertorously, frothing at the mouth, with rapid and extremely feeble pulse, to all appearances rapidly dying. The breath smelt strongly of Jeyes' fluid. A tube was passed into the stomach

with difficulty, owing to the œdematous state of the pharynx. The first washings had the usual appearance of Jeyes' fluid. The patient remained unconscious; all reflexes absent; pulse 160; respiration 40 to 45; skin cold and livid. A hypodermic injection of 10 ♏ of liq. strychniæ was given, followed shortly afterwards by one of 20 ♏ of ether. Slight improvement was noticed, but not maintained, and in an hour a second injection of liq. strychniæ was given, and poultices applied to the chest; after this her condition improved, and in four hours she showed signs of consciousness. But during the night the heart repeatedly showed signs of failure, and two doses of $\frac{1}{100}$ gr. of digitalin were injected. Towards morning she was able to take some brandy and milk by the mouth, was quite conscious, and commenced to talk. Respiration had fallen to 24; pulse 108. Breath still smelt strongly of Jeyes' fluid, and she passed a motion of a strong tarry odour; urine appeared normal. During the day her condition was most hopeful, and she gave an account of her attempt. Whilst the nurse was occupied with the troublesome patient she slipped into the scullery, saw the tin of Jeyes' fluid, took one mouthful, and no more, and then returned to her place at table. Her statement as to the quantity was corroborated by the fact that on the previous day two pints of the fluid had been given out to the ward, that small quantities of this had been used on two occasions, and that after the event the tin was found to contain 33 oz. out of the total 40 supplied. Except a constantly expressed fear on the part of the patient that she would die, there was nothing to cause anxiety until 5.30 p.m., twenty-four hours after taking the poison, when the respiration rose to 60; pulse 140; temp. 101·2°. Later, dulness developed at the right pulmonary base, extended upwards, and death took place from œdema of the lungs thirty-eight hours from the suicidal act.

Post mortem there were found commencing consolidation of the right lung, and some œdema of the left. Left cardiac ventricle much hypertrophied. Stomach and small intestine of quite healthy appearance, except for slight ecchymosis in the upper part of the duodenum. The large intestine contained normal fæces, smelling slightly of tar. The kidneys showed the usual appearances of chronic Bright's disease.

Discussion

At the Meeting of the Northern Division on October 3rd, 1900.

Dr. Millar said: This has been an interesting paper to me, because a patient of mine drank half a pint of Jeyes' fluid. Beyond a certain amount of sickness he exhibited no signs of poisoning whatever, and was up and about again in three days. As soon as it was known that he had drunk the fluid, a tube was passed into his stomach, and the latter was washed out. For one day he was fed through the tube, into which a certain amount of oil was put. He then asked to be allowed to have a drink, and was given a tumbler of milk and egg, which he easily swallowed.

Dr. Hunter said that it was quite possible that Jeyes' fluid varied in strength, and suggested that if an analysis had been made the strength might have been found different from the standard. He had always regarded Jeyes' fluid as a harmless disinfectant, and trustworthy.

Dr. McDowall said he had heard of another case of the kind.

Dr. CALCOTT said that he had always regarded Jeyes' fluid as poisonous, and that he used it pretty extensively for foul rooms and lavatories.

Dr. HITCHCOCK.—The practical point of the paper seems to be that we shall be blamable if we continue to use it without the precautions that we observe in the use of any common poison. I have hitherto used it very freely without taking any particular precautions.

Occasional Notes.

The Psychiatry Section of the Paris International Medical Congress.

IT was unfortunate that the International Medical Congress and the British Medical Association Annual Meeting were both fixed for the same week, as otherwise there would doubtless have been a larger attendance of our countrymen at the Section of Psychiatry of the former, held in Paris from the 2nd to the 9th of August. Amongst the British delegates present we note the names of Sir John Sibbald, Dr. Fletcher Beach (President of our Association), and Drs. Benham, Fraser, Shuttleworth, and J. F. Sutherland; and Sir John Sibbald was appointed a Vice-President of the Section. The presidential chair was ably filled by Dr. Magnan, Physician to St. Anne's Asylum, and Dr. Ritti (of Charenton) proved a vigorous and courteous Secretary. The Section was throughout largely attended, the discussions were well sustained, and much genial hospitality was dispensed, both privately and in the course of visits organised to asylums. In this last respect the Section of Psychiatry seems to have contrasted favourably with some others,—so far, at least, as the experience of English visitors is concerned.

The work of the Section consisted of four special subjects chosen for discussion, and of miscellaneous papers. The *Psychoses of Puberty* were treated of by Drs. Ziehen, Marro, and J. Voisin, the term hebephrenia (first used by Kahlbaum and Hecker in 1897) being applied to cases terminating in profound dementia at an early age. The advantages of *Rest in Bed*, judiciously applied, in the treatment of insanity were discoursed on by Drs. Neisser, Korsakoff, and Jules Morel, the indications for its use being specially conditions of excitement, and of

impairment of general nutrition. A report on the *Pathological Anatomy of Idiocy* was presented jointly by Drs. Shuttleworth and Fletcher Beach, and this subject was further elucidated by a demonstration by Dr. Bourneville of brains and other preparations selected from the very valuable collection in his museum at the Bicêtre, as well as by living specimens of microcephaly brought from that institution.

Amongst the miscellaneous papers we must not omit to mention an interesting communication by Dr. J. F. Sutherland, Deputy Commissioner for Scotland, on the subject of boarding-out the insane in cottagers' families, which elicited considerable discussion, *apropos* of the "Colonies Familiales" recently established in France. A visit to the village colony of Dun-sur-Auron, near Bourges, formed by the Prefecture of the Department of the Seine for the accommodation of selected lunatics from Paris and its environs, was one of the most attractive excursions of the Section, though its distance from Paris (300 kilomètres) precluded many members from joining in the inspection. As many as 690 patients are accommodated in the colony; 89 being boarded-out singly, 300 in pairs, 234 in threes, and 36, six together in a cottage; in addition to 31 patients in the two infirmaries. Other visits were made to the several asylums in and around Paris, and no effort was spared to make the Section in every sense a success.

Private Patients in London County Asylums.

The Asylums Committee of the London County Council have lately made important arrangements for the care of private patients. As yet the only special accommodation provided by the Committee for private patients is at Claybury Hall, where fifty males are accommodated at 30*s.* and £2 per week; and at the Manor Asylum, Epsom, which has a special ward for 59 females at 15*s.* per week. These rates do not include clothing or special luxuries. The Committee has given effect to Section 3 of the Lunacy Act, 1891, which is as follows:

"A lunatic sent to an institution for lunatics under Section 13 or 16 of the principal Act (Lunacy Act, 1890) shall be

classified as a pauper until it is ascertained that he is entitled to be classified as a private patient."

Patients dealt with under this section are not received as private patients, but are admitted from the various London parishes and unions, being classified as paupers. The transfer to the private class takes place when it is ascertained that the full pauper rate of maintenance (at present 10*s.* 9½*d.* per week) is being paid, or that the patient has means sufficient to pay, or that the friends are willing to contribute such sum. Care is taken that the payment is properly guaranteed when the patient has no separate means or estate. The maintenance charge includes the cost of clothing, but the patient is permitted to wear his or her own clothing if desired, no reduction in charge being made in this event.

Beyond the fact that the patient on the 'private list' has ceased to be chargeable to the parish, and the stigma of pauperism is thus removed, there is no change made in his surroundings or diet from the ordinary pauper, excepting he wears his own clothing. He, of course, has all the benefits of a private patient under the Lunacy Act.

The payment for maintenance is made direct to the Asylum, the costs for certification and removal being made by the Guardians and afterwards reimbursed to them out of the patient's estate.

As the Committee receive no information of the sums reimbursed to the Guardians by relatives in respect of the patients classified as paupers, there is no distinction made between those who contribute and those who do not. A patient would not be classified as a private patient unless his whole cost to the Guardians is repaid.

Partly in consequence of this, up to the present the Committee have not classified all those patients whose maintenance has been fully reimbursed to the Guardians by their friends, but have simply dealt with such cases as have come to their knowledge, or where the friends have applied for a change of classification. The question will, however, be again considered by Committee shortly, and it is probable that all cases where the whole pauper rate is reimbursed will be hereafter inquired into.

The pauper lunatic grant (four shillings per week) does not apply in the case of private patients, as it is only paid by the

County Council to Guardians when the net cost to them of a lunatic, after deducting any amount received by them from any source other than local rates, is equal to or exceeds four shillings per week.

There is undoubtedly a demand for private asylum accommodation for the lower middle class, and it was in consequence that the Committee decided to devote a ward at the Manor Asylum, Horton, for this class of people at the low rate of fifteen shillings per week. Care is taken that the proper class of patient is admitted, the accommodation being reserved for those whose means are limited to a small payment.

We need not comment at length upon these arrangements, which show that the Asylums Committee are desirous of doing what they can in this matter in the interests of the insane, and in the interest of the ratepayers. While the normal yearly increase of insane persons coming under their cognizance continues unabated, their duties in meeting the demand must necessarily become more and more serious. We have little doubt, however, that London will yet have an asylum specially set apart for the poorer class of the private insane, and it is to be hoped that the moderate rate of fifteen shillings a week now charged at the Manor Asylum will be maintained in that event.

It has become necessary to inquire into the pecuniary circumstances of those who benefit by general hospitals, and it is equally necessary to ascertain that the relations of insane persons are not evading their responsibilities in placing them among those supported by the State. We trust that the inquiry above indicated will be searching and productive of good results. There can be no doubt that it would be a great inducement to this class of society to fulfil their natural obligations if the Asylums Committee could assure them of separate accommodation at moderate rates of payment. Not only would there be an avoidance of the stigma of pauperism, but there would be a less indiscriminate mixture of all classes of patients, while the social habits and instincts of many would be conserved. No doubt the work of officials would be largely increased in the collection of small sums from many who necessarily have difficulty in making payments, but the advantages to the insane and the community generally by far outweigh difficulties which are by no means insuperable.

Dowling v. *Dods.*

This case, the trial of which was reported in the last number of the JOURNAL, has had a very satisfactory ending. It will be remembered that Mr. Dods gave notice to the relieving officer that Miss Dowling was insane, stating the grounds of his opinion, and stating further that if she, in her then state of mind, acted as a dispenser, she would be a danger to the community. On this notice, or certificate, as it was called, Miss Dowling sued Mr. Dods for libel, and gained damages £100. Mr. Dods, however, appealed, and applied for judgment or for a new trial, on the ground that the verdict was against the weight of the evidence, and that there being no evidence of malice the judge of first instance ought not to have left the case to the jury. The text of the decision of the Court will be found in another column, and it could not have been more satisfactory to Mr. Dods than it was. The Court found, in the first place, that the occasion was privileged, and that there was no evidence of malice to withdraw the privilege, so that the plaintiff had no case. But even if the occasion had not been privileged their lordships were of opinion that the verdict was against the weight of the evidence. The jury had found that part of the letter was true and part untrue, and that the justification which the defendant pleaded was not true. But the Court of Appeal considered such a finding was so inconsistent with the evidence that had the defendant not already succeeded upon the ground of privilege they should have sent the case down to be re-tried on the ground that there was no evidence at all upon which the jury could fairly find that the justification was not true.

The victory of the defendant is therefore complete, but it has been gained at a heavy cost, both of money and of anxiety. It is hard to see how this cost could have been avoided. The liberty of the subject to bring an action at law, if he considers that he is aggrieved, will not be and ought not to be materially abridged. It should not be forgotten that the Legislature has embodied in the Lunacy Act, 1890, a very important provision for the protection of those who act under its powers. Section 330, sub-section 2, provides that "if any proceedings are taken against any person for . . . doing anything in pursuance of this Act, such proceedings may, upon summary application to the High

Court or a judge thereof, be stayed . . . if the Court or judge is satisfied that there is no reasonable ground for alleging want of faith or reasonable care." We do not know whether any application under this sub-section was made by Mr. Dods, but it seems most likely that if such an application had come before either of the judges who formed the Court of Appeal that decided in Mr. Dods' favour, they would have stayed the action. It is unfortunate that the first case in which such an application was made was unsuccessful, although all the circumstances appeared to be in its favour; and this experience has probably deterred counsel from advising that such a course should be taken in subsequent cases. But it would seem well worth while to test it again in cases such as Dowling *v.* Dods.

The Prosecution of Dr. Hutton.

On August 16th, Dr. Hutton, of Harringay Gardens, Tottenham, appeared before Sir F. Lushington to answer five summonses, charging him with ill-treating and neglecting, etc., a lunatic.

The facts of the case, as laid before the magistrate by Mr. Bodkin, were shortly as follows:—The lunatic was the defendant's own brother, and thirty-six years of age. He was a congenital idiot incapable of speech. In 1892, by order of a Master in Lunacy, his property was invested, and the income of between £80 and £90 was paid to the patient's mother for his benefit. She, being unwilling that her son should go to an institution, handed him and his income over to her other son, the defendant. Until six months ago the patient lived in the house with his brother, but then, on account of his habits, the following change took place. The defendant's coachman was sent to lodgings, and a bedroom for the patient was made out of the harness room. Between the latter and the party fence of the garden, a space of six feet by four feet was partitioned off, and in this space the patient was confined from morning till evening. The door was fastened on the outside, and there was a seat at one end partially covered from the rain. There was no other protection from the heat or rain. The police having heard of this state of affairs made inquiries, just at the

time that an anonymous letter reached the Commissioners in Lunacy. Immediate action was taken, and on August 9th the patient was removed to Earlswood, where, four days later, he died.

The facts having been proved, the magistrate gave his decision. From his personal inspection of the bedroom, he did not think that it could be fairly described as a harness room. Most of those in court had slept in a room no better without a sense of hardship. With regard to the enclosure, after all the evidence given there that day, it was impossible to doubt that the patient was not confined there against his will, but was free to do very much as he liked. In respect to the charge of active cruelty, if it were true, as stated by witness after witness, that the split cane produced was the only one ever used, the patient might well have been struck so as to cause a noise without the least pain being inflicted. It was certainly desirable that no cane or stick should be permitted to be used in an asylum; indeed, such a provision would be necessary to guard the patients against cruelty from irresponsible warders. He had no doubt that Dr. Hutton had acted throughout in the best interests of his brother. The whole of his conduct to the unfortunate man was characterised throughout by extreme kindness. The charge would therefore be dismissed.

At Bow Street police court, September 14th, before Sir F. Lushington, Dr. John Hutton appeared to three summonses charging him with keeping a lunatic in an unlicensed house for payment. Mr. Bodkin, with Mr. Frayling, of the Treasury, appeared for the Director of Public Prosecutions; Mr. R. D. Muir defended; Sub-divisional Inspector Peckover represented the police.

On the last occasion it had been suggested by Mr. Bodkin that the charge, being one of an indictable offence, not subject to the Vexatious Prosecutions Act, should be transferred from this Court and preferred before the grand jury. This proposal, however, was not accepted, and Mr. Bodkin now asked that the charge should be dealt with summarily, commenting on the obscurity of the wording of the Lunacy Act, 1890. However that might be, the defendant was now charged with having, for payment, taken charge of this lunatic contrary to the provisions of the Act; with having, for payment, received him

to board and lodge; and with having, for payment, detained him in an unlicensed house. He submitted that the question whether a profit was made on the keep of the lunatic did not arise in this case.

Mr. Muir, in cross-examining Mr. Oakeshott, the gentleman who attended from the office of the Masters in Lunacy, put to him a copy of an affidavit dated January 22nd, 1892, sworn in the proceedings by which Mrs. Hutton obtained the administration of the lunatic's estate, in which it was stated that the lunatic was residing with his brother, and which was endorsed by Master Maclean, "I approve of this arrangement." Mr. Muir urged that the offence which Dr. Hutton had committed, if any, was purely technical, and in no way reflected on his character, and he submitted, as a point of fact, that there was no taking charge "for payment."

Dr. Hutton was called, and denied that he received or maintained his brother for payment. In fact, his keep cost over £100 a year, at a rough average.

Mr. Bodkin, in reply to Mr. Muir, reaffirmed his former statements, contending that the taking and boarding of this lunatic were continuing offences under the Act.

Sir F. Lushington said that while he must hold that the defendant received his brother for payment within the meaning of the Act, the offences named in the first two summonses were committed more than six months ago, and therefore could not come within his jurisdiction, though, had the prosecution asked that the defendant should be committed for misdemeanour, he should have been bound to commit him accordingly. In the case of the third summons, he was bound to hold that a technical offence had been committed, as, though it seemed that the defendant was in communication with the Master in Lunacy, he was not with the Lunacy Commissioners; but he could not help thinking that, after his remarks on the previous charge against the doctor, it was rather a pity that these summonses had not been dropped. In the circumstances, he should therefore impose only the nominal penalty of 5*s*.

The prosecution of Dr. Hutton is important in many ways and raises many questions, though it decides none. We say it decides none, for the decision that a cane may be used in the private care of a lunatic, though it may not be used in an asylum, is never likely to be followed. Dr. Hutton was

charged, however, not only with ill-treating his brother, but with divers other offences under the Lunacy Act, 1890. Section 315 provides that—

(1) "Every person who, except under the provision of this Act, receives or detains a lunatic or alleged lunatic in an institution for lunatics, or for payment takes charge of, receives to board or lodge, or detains a lunatic or alleged lunatic in an unlicensed house, shall be guilty of a misdemeanour and in the latter case shall also be liable to a penalty not exceeding fifty pounds."

The offences charged against Dr. Hutton were: (1) with having for payment taken charge of his brother contrary to the provisions of the Act; (2) with having for payment received him to board and lodge; and (3) with having for payment detained him in an unlicensed house.

The charge of ill-treatment was dismissed by the magistrate, as appears from the report. With respect to the other summonses, Sir F. Lushington said, "that as the offences named in the first two—for payment taking charge of his brother, and receiving him to board and lodge—were committed more than six months ago, they could not come under his jurisdiction; though had he been asked to commit the defendant for misdemeanour he should have been bound to do so." It was, therefore, only the third summons, of having for payment detained the patient, that he had to decide. It appeared that in the proceeding before the Master in Lunacy, by which the administration of the lunatic's estate was settled, it was stated that the patient was residing with his brother, and the order was endorsed by Master Maclean, "I approve of this arrangement," so that there was nothing whatever clandestine about the proceeding; but Dr. Hutton, in omitting to have a reception order made with regard to his brother, had committed a technical offence, which the magistrate was of opinion could be atoned for by a fine of five shillings, and his worship added that it was rather a pity that these summonses had not been dropped.

It was proved in the course of the proceedings, and the point is important, that Dr. Hutton received his brother's income, and applied not only that income, but more also out of his own pocket, for the maintenance of the patient. This did not exempt him from the provisions of the Act;

which is indifferent to the question whether or no a profit is made, but applies whenever payment is received.

When this clause is critically examined, its mesh is found to be very fine, and to bring within its penal scope the most varied description of persons. As was pointed out by Dr. Savage at the last meeting of the Association, in a paper which will be presented to our readers, it is a common practice to send persons who are suffering from mental disorder of moderate degree to travel, under the supervision of a companion, medical or lay. It seems clear that any such companion might under this clause be prosecuted for "for payment taking charge of" the patient, even though, as often happens, the patient himself makes the payment! And further, it appears that the proprietor of any hotel in which the couple might elect to stay, would be liable to prosecution for "for payment receiving to board or lodge" the patient. Be it said that this is improbable, since a patient well enough to travel would probably be too well to be certifiable; the reply is that the Act provides for this case also; for it applies not only to lunatics, but to alleged lunatics also. Query whether in case, in a dispute between two persons staying at the Hôtel Métropole, one were to say to the other "Why, man, you must be mad!" this allegation would render the Directors of the Gordon Hotels Company liable to prosecution? The person addressed would be an "alleged lunatic," and the Directors would be "for payment receiving him to board and lodge." Again, supposing that the person so addressed were to bilk the hotel, and to depart therefrom without paying his bill, would this exempt the Directors from their liability to prosecution? Such suppositions are absurd, no doubt, but we must remember the unimpeachable dictum of Mr. Bumble with regard to the law, which we may paraphrase by saying that the judicial is not always the judicious.

The writer was acquainted with an eminent mathematician, a F.R.S., whose conduct was most eccentric, and who was considered by all his very large acquaintance to be of very unsound mind in many respects. This gentleman lived in lodgings, discharging his own liabilities, and administering his own income; but it is clear that if his most respectable landlady had had an enemy, she might have been prosecuted and committed for trial for the offence of "for payment receiving to

board and lodge" an alleged lunatic. Sir F. Lushington, it will be noted, declared that if he had been asked to commit Dr. Hutton for trial he would have had no alternative but to do so.

The vast majority of cases in which such questions have arisen in the past, and will probably arise in the future, are cases in which the certifiability of the patient is in doubt. There are at the present moment hundreds of persons more or less unsound in mind, who are for payment taken charge of and received to board and lodge in unlicensed houses all over England, and in the great majority of these cases opinion as to the certifiability of the patient would be pretty equally divided among half a dozen competent experts. But the law does not need that the patient should be certifiably insane. If he is an *alleged* lunatic, that is enough; and the very serious questions that have to be faced are: "What constitutes an allegation? and Who are the persons whose allegations are to be attended to for the purpose of the Act? It seems clear that a wife who temporarily detains in his own house her husband, who suffers from some mental disorder, would, unless she had an independent income, and defrayed the whole expenses of the house out of her own pocket, be liable to prosecution under this clause of the Lunacy Act, 1890. The *British Medical Journal*, which puts the case, truly says that "the position is an intolerable one. It will not ease mind or conscience to reflect that as long as things go well no trouble will arise. Few people care to continue under a knowledge that they are breaking the law, even if they feel that they are acting under the most natural and righteous circumstances."

The Slough Accident.

In this recent railway accident it will be remembered that the driver of an express train ignored two sets of signals that were against him, and ran into another train which was drawn up at a station. An inquiry has been held by Colonel Yorke, the Board of Trade inspector, with the result that the driver of the express "took upon himself the whole responsibility;" but at the same time it does not appear that he offered any

explanation. Under these circumstances there has been a great deal of very unprofitable speculation as to the reason of the driver's action, or failure of action. It has been suggested that he was "unconsciously drowsy," whatever that may mean; that he suffered from temporary "absence of mind;" that he was suddenly overcome by premature senility; and there have been various other hypotheses, culminating, of course, in demands for more legislation to render such occurrences impossible in future. Engine-drivers should, it is said, be medically examined once a year after the age of fifty-five; they should not come on duty at five in the morning; they should not be on duty more than eight hours a day; and so on, and so forth. As to all these suggestions, we would point out that it is quite useless to propose remedies until we know the actual nature of the malady. All that we know at present is that the driver did in fact overrun his signals. When we ask how such a thing can possibly happen, we are confronted with a number of alternatives besides those which have been suggested, and in suggesting these we do not intend to imply that any of them was actually operative in the Slough case, but that such alternatives must be considered before legislative remedies are decided on. A man might overlook his signals from pre-occupation of mind, his attention being absorbed in internal contemplation. He might, for instance, have a favourite child lying dangerously ill at home, and be able to think of nothing else. His circumstances might be so desperate that he had determined on suicide, and, in the selfish absorption in his own misery, he might be reckless of the misery that he inflicted on others. He might have had a row with his wife, and be determined to punish her by a reckless and desperate act, on the same principle as an aggrieved wife so often puts her hand through the window-pane. These and other alternatives should be considered before we invoke the explanation of a premature sudden senility.

Dr. St. John Clarke.

A lamentable affair occurred at Leicester on October 9th, Dr. Clarke having been fired at and wounded by a man named Kirby. Kirby had been several times sent to a lunatic asylum, and Dr.

Clarke had on at least one occasion made the necessary certificate. The lamentable element in the affair is that it was preventable and ought to have been prevented, for Kirby had repeatedly threatened Dr. Clarke. When will people learn that a lunatic with delusions of persecution is always a danger to the community, and ought never to be allowed at large; and that a lunatic with delusions of persecution directed against a specified individual is as dangerous to that individual as a mad dog loose upon his premises, and ought not to be allowed at large for an hour?

The English Commission in Lunacy.

The inadequacy of the Lunacy Commission to cope with the amount of work and responsibility heaped on it has been so often dwelt on in this JOURNAL, that our readers must long since have placed this topic in the same category as the smoke of London, the narrowness of the Strand, the red tape of Government offices, and the many other anachronistic abuses which the conservatism resulting from mediæval modes of education permits us to endure.

An apology is almost necessary for reviving this antique grievance, and recapitulating the time-worn arguments against it. It is, for instance, almost incredible that three physicians can be thought capable of inspecting upwards of a hundred thousand lunatics, of deciding that they are all proper objects for detention in asylums, that they are not ill-treated, and the thousand and one other matters relating to the medical care of the insane.

The first Lunacy Commission, appointed in the early years of George III, consisted, it is well to remember, of five Fellows of the College of Physicians, the scope of their duties comprising a seven-mile circuit of London with a total population of half a million or so. A century and a quarter later we find that three physicians are considered sufficient to look after the welfare and interests of upwards of a hundred thousand lunatics scattered throughout England and Wales. Either the first Commission was excessively over-manned, or the present one is totally inadequate.

The scanty supply of medical Commissioners at this late

period is, however, to be accounted for. In the early Georgian period, although the popular idea of insanity remained very much that of evil possession, the educated view regarded it as disease; and it was not difficult to impress this on the kindly landlords who comprised the legislative body. In the Victorian period the legal profession has managed to obtain an altogether disproportionate share in the legislature, with the result that the country has been harshly law-ridden. The result of this in lunacy legislation has been that the lunatic, from being regarded as a sick person, has come to be treated as a criminal. Hence it is that while three physicians are thought sufficient to attend to the medical needs of the enormous insane community, more than double that number of lawyers are required to see that they are properly imprisoned, or in legal phrase—incarcerated.

The legal preponderance in the Commission is without doubt principally responsible for the excessive amount of red tape that goes far to paralyse asylum physicians, and tends to reduce them to mere form fillers and report writers. The same tendency has led to the medical staffs of asylums remaining so limited, and the general arrangements for detention so extensive.

Increase of the Commission has been objected to on the ground that it would only lead to more talk and more tape; but the medical element could be increased without enlarging our Commission; it is, indeed, desirable that the increase of the medical element should be at the expense of the non-medical.

In every country but England immeasurable astonishment is felt at the fact that the interests of a hundred thousand sick persons are entrusted to a commission in which only about one member in four is medical. The original Georgian Commission, if it erred, erred on the right side in being exclusively medical, but the undoubted error is now very greatly the other way.

It cannot be pretended at the present time that the best interests of the insane would not be served by considerably more medicine and a great deal less law.

Lunacy Prosecutions.

Prosecutions based on Section 315 of the Lunacy Act have been so frequent that this particular legislative item has obtained an unenviable notoriety, and would seem to demand serious consideration, either with a view to amendment or to more reasonable interpretation.

This section (315) provides that "whoever for payment . . . takes charge of, receives to board or lodge, or detains a lunatic or alleged lunatic," is guilty of a misdemeanour, etc. etc.

Lunatics, or persons of unsound mind, as the ordinary certificate of insanity clearly shows, are of two kinds: the one certifiable, who requires "to be taken charge of and detained under care and treatment;" the other not certifiable, who does not require to be detained.

As the section stands both classes of lunatics are included under it, and a little consideration demonstrates that, in relation to the law, the uncertifiable lunatic is in a parlous state, and is a legal danger to all who have to do with him.

The uncertifiable lunatic who, under medical advice or otherwise, goes to the health resort, involves the hotel, lodging- or boarding-house keeper in a breach of Section 315.

If he takes a relative and pays his expenses, or hires a companion, they become liable to prosecution; and wherever they stay or lodge, the proprietors are also liable.

The uncertifiable lunatic, if he stays at home or with relatives and makes any "payment" for his maintenance, renders even his relatives liable to prosecution. Quite recently one brother was in this way prosecuted for taking charge of another.

The only legal alternative for the uncertifiable lunatic is to stay at home a burden to his friends, or to go as a voluntary boarder to an asylum. This is a hard alternative, for the idea of going to an asylum is harmful to the majority of such cases, and home associations are those which are often most prejudicial.

The section includes also "alleged lunatics," but the Act nowhere defines this term; it would seem very desirable that if it has a meaning it should be explained, and if it has not that it should be deleted. If a person is a lunatic the allegation

of lunacy would appear to be superfluous, and the term meaningless; if, on the other hand, it means a sane person against whom the allegation of lunacy is made, its application would become inconveniently extensive, to say the least.

The prosecutions under this section, however numerous, have done little in elucidation of its true scope. The finding of the jury in the Eastbourne prosecution is perhaps the exception. The verdict in that case indicated clearly that anyone may take charge of a lunatic for pay, provided that the patient is not treated as a lunatic.

This decision is diametrically opposed to the wording of the section, and would make its object the prevention of a sick person from obtaining proper treatment, which would be absurd.

The interpretation of the section accepted by the lunacy authorities, as indicated by recent prosecutions, does not seem much more reasonable than that of the jury. According to this the person of unsound mind who is not certifiable, and who has no friends able or willing to maintain him, would have no alternative but to become a voluntary boarder in an asylum—a result that could not have been contemplated by the framers of the section.

Lunatics at the time of the drafting of the clause were very unkindly treated; and it was probably framed to prevent improper treatment and neglect, rather than to interfere, as its present interpretation does, with treatment that is kind, judicious, and advantageous to the patient, both for health and monetary reasons.

Lunacy legislation in recent years has given a practical monopoly to the lunatic hospitals and private asylums, and these prosecutions would seem to be undertaken in the interest of this monopoly.

These institutions are very admirably managed, and have highly experienced physicians, but it must be remembered that there are many physicians of equal experience who are debarred from using their knowledge and experience in the service of the public by reason of this monopoly. It would at least be desirable that these physicians, unconnected with asylums, should have some opportunity of treating the early stages of mental disorder without the risk and danger of prosecution that at present attaches to any treatment of the

mentally afflicted, apart from certificates and asylums. The recent bankruptcy and suicide of a medical man, as a result of one of these prosecutions, in which there was no doubt that the patient was kindly and advantageously treated, is a good example of how to deter all persons of experience and standing from such work, with the result of driving certain cases into unsuitable hole-and-corner treatment.

The term "lunatic" occurs in the section, and we have consequently used it, but it is a term that should be abolished from the *Act* and the *section*, the term unsound mind being everywhere substituted.

"Lunatic" savours too much of the mediæval idea of insanity being something apart from ordinary disease. Indeed, although "diseased mind" is a term open to objection, it would be better than "unsound mind," as more clearly indicating and keeping before our legislators and legal administrators the fact that "insanity" is not crime, and is disease.

Archives of the Pathological Laboratory of the London County Council.

This valuable and important contribution to medico-psychological literature has not as yet received separate consideration in the pages of the JOURNAL. This has not arisen from any want of recognition of the great advance which it connotes in the attitude of so important a body as the London County Council to medical science, or from want of appreciation of the high character of the work recorded, but from the fact that it was thought desirable that the individual contributions should be dealt with in detail, and the volume as a whole has thereby escaped comment. Notices of some of the papers contained in the *Archives* appear in the present issue, and more extensive digests will appear in April.

Part II.—Reviews.

The Fifty-fourth Report of the Commissioners in Lunacy, July 2nd, 1900.

THE majority of our readers, we have no doubt, eschew the serious study of the annual Report of the Commissioners in Lunacy to the Lord Chancellor, having long ere this discovered that it is merely a popular production, presumably for the edification of the man in the street—a bureau publication on a subject partly statistical and wholly scientific, by a body of officials not one of whom is more than an amateur statistician, and a minor section of whom only are scientists; a red-tape product in blue binding, the subject of amused comment (we say this in all sincerity) for our Continental and trans-Atlantic *confrères*, which betrays to all and sundry that in England there remains a survival of the ancient belief that insanity is a diabolical possession; for does not a Lord Chancellor preside over the destinies of the department? and are not laymen skilled in the law (leavened, it is true, with a medical leaven, which, unfortunately, leaveneth not the lump) still considered the proper judges of the methods of treatment and the existence of insanity —insanity which we neo-scientists have the presumption to declare to be a symptom, and but one symptom, of a certain acute or chronic visceral malady, even as a cough is a symptom, and but one symptom, of another? Is it, then, to be wondered at when this symptom, this one exposition of a brain malady, is dealt with in all its aspects in a departmental publication, that there should result a mass of fallacious statistics and illogical deductions from insufficient premisses, the work of the department itself, and a medley of pseudo-scientific pronouncements and comments dealing with sanitary science, medical science, architectural science, and every other science pertaining to the insane and asylum management? What, we wonder, would that at present most popular personage, the man in the street, say, were the medical department of the Local Government Board to be so remodelled that at its head there were placed an engineer skilled in the construction and laying of sewers, with three minor sewer authorities and three medical men to advise him as to State medicine?

It surely is a matter of deep regret that this Report should continue to pose as the yearly authoritative *résumé* of the increase of our knowledge of mental affections, the improved treatment of the insane, and the scientific exposition of the statistics of insanity. Any one who has glanced through the elaborate and useful scientific compilations of other countries, dealing with the insane within their confines, will be struck by the marked difference between not only the matter, but also the spirit of their reports and ours.

With the new lease of life granted to the Government it were well could the Lord Chancellor be persuaded, with the connivance of the Home authorities, to inaugurate the new century by a complete revision of the constitution of the Board of Commissioners, appointing to that department not laymen, but medical scientists, who surely alone can be

the proper judges of a purely medical subject such as insanity, who have been trained in all the branches of the speciality, and who have a competent knowledge of the value of statistics; the assistance of a legal luminary being granted them to act as assessor in all questions of law.

It is painful year after year to have to comment on the glaring inaccuracies in this Report—and to demonstrate how hasty, and frequently unjust, are the criticisms and deductions of the Commissioners. Perhaps in the later years of this new century it may dawn upon the community, and subsequently on the Government of the day, that our departmental study of mental disease is an anachronism, and that we lag sadly in the rear of other nations, to whom we should act as pioneers and leaders in this work. But perhaps this is even too sanguine a hope. All that we can do in the meanwhile is annually to reiterate all our old arguments, and to re-utter all our well-worn protestations, in the faint hope that one day some one in authority may be brought to think of the golden opportunities that are being wasted, and the valuable material which is being utterly disregarded by the officials who frame these reports. To evaluate the statistical summaries which are given us has evidently been too much for even the ordinary medical reader; he has calmly accepted all the deductions offered him without question as to their soundness, and, with a simple, child-like faith in the infallibility of the Commissioners, has proceeded to draw his own inferences, oblivious of the fact that for quite a decade this system of statistical tabulation has received the well-merited condemnation of every sound statistician.

As an illustration of our annual contention that the total number of insane coming under the Commissioners' cognizance every year is an irregular variable, from which any serious inferences are wholly unjustifiable, we may draw the attention of our readers to the totals furnished by them this year. The Commissioners choose a certain date—viz., December 31st—on which to estimate the insane population of England and Wales, thereby constructing for all their calculations a false foundation. Any other day in the year would have given quite another result, with a marked alteration in all their percentages dependent on this annual census. They are, we see, "pleased to note" that the increase is only 1525, as against an increase last year of 3114; and they are so thoroughly convinced that this annual enumeration on a given date is sound reasoning that they offer the following valuable explanation of this diminution:—"We think the diminished annual increase in the total number of lunatics . . . is mainly due to the stationary character of the admissions, the cause of which we are unable to determine, combined with the higher recovery and death rates in the past year." The early part of this quotation is delightfully lucid. If the Commissioners would but calmly state facts and figures, and leave others to draw inferences and offer explanations, the evil effects of their annual reports would in some measure be lessened; but so long as the constitution of the Board remains as at present we shall, no doubt, be treated to similar annual speculative explanations, the precise meaning of which is nebulous.

The Report tells us that the total number of patients under the supervision of the Commissioners' office on January 1st, 1900, amounted to

106,611, an increase on the number on the same date in the previous year of 1525. As we have so often maintained, it is quite impossible to obtain anything approaching a fair censal estimate of the certified insane, for the choice of any date assumes that the occurrence rate of insanity is fairly regular even in its variations. But this is not so, for in one year there will be a host of cases in December, for instance, and next year not one fourth of the number. The only fair estimate the Commissioners can make of the amount of increase or diminution in their work per annum—for that, we assume, is the object of the Report—is the difference between the average daily number resident in all institutions year by year. The Commissioners then would be perfectly justified in working out percentages to two places of decimals were they to take these figures as their bases of calculation. A casual survey of the totals given in the Report of the average daily number resident demonstrates that for the last five years there has been an increase for each year respectively of 1933, 2919, 2445, 2763, and 2258, thus showing that the year in which all institutions were most busy was in 1895-6. To talk about the percentages of pauper and private patients calculated on a fixed censal basis, to work out the ratio of patients admitted into asylums for a fixed period as compared with an estimated population value, and to infer that 1 person in 301 is mad, are, as we have repeatedly shown, arithmetical exercises the Commissioners have presented year after year, the meaning of which is *nil*—except to the individual too indolent to think for himself.

Table IV—that dealing with the rational estimates of pauper insane on a certain date to the actual number of known paupers on the same date—is certainly logical, and therefore of value; it is, in fact, the only correct ratio table in the Report. We are here shown that the total number of paupers on January 1st, 1900, was 807,595, and of pauper insane 97,028, or a ratio of insane to total paupers of 12·01, an increase of ·37 per cent. on last year's ratio. Speculative inferences relating to the question of the state of insanity among paupers, and to the subject of the general increase of insanity, would here have been perfectly permissible and extremely useful; but the Commissioners pass this table by as quite unworthy of comment. It is interesting, however, to take note of the figures here given. The ratio per cent. of paupers to population for 1899–1900 was 2·52, and that of pauper lunatics to total paupers (as mentioned above) 12·01. When we compare these ratios with the decennial average ratios in each instance (2·59 and 10·68 respectively) we shall find a difference respectively of *minus* ·07 and *plus* 1·33. Concerning ourselves with the latter only, it will be found that the increase in the pauper insane to pauper ratio is due almost wholly to the great rational diminution of paupers to population during the last year; that ratio, in fact, is the lowest for ten years. Assuming for a moment that the ratio per cent. of paupers to population had remained at the figures at which it stood last year—viz., 2·59 per cent.,—there would have been a ratio of pauper lunatics to paupers this year of 11·62 per cent., an increase of only ·02 per cent. on the actual ratio of last year. No more convincing proof of the stationary character of insanity in a certain section of the populace—*i. e.*, paupers—could be adduced by figures; and when we reflect that paupers are nearly always

in the ratio of 2·6 per cent. to the general population, both at census computations and in estimated population values, we can by inference assume—but only assume—that insanity is, so far as figures can show, by no means advancing in the community.

Perfectly legitimate and—we say it conscious of our own fallibility—soundly logical comments such as these would, if included in such an authoritative publication as the Commissioners' Report, do much to reassure the highly nervous lay and, alas! medical journalist, who, with an interest almost personal in its intensity, is ever ready to pounce upon any pessimistic or despondent utterance of the Commissioners with respect to the ratios of insane to population, thoroughly convinced that they cannot err.

A comparison table, setting forth the variations as to increase and diminution in admissions during 1899 in the various institutions and modes of care, is here given:

	County and borough asylums.	Registered hospitals.	Metropolitan licensed houses.	Provincial licensed houses.	Naval and military hospital.	Criminal asylum, Broadmoor.	Private single patients.	Idiot establishments.	Totals.
Increase	119	—	—	—		—	5	12	140
Diminution	—	12	43	91	—	7	—	—	1

Total diminution, 13.

The very noticeable diminution in the number of certified insane of the private class once more calls for comment. The table of transfers serves no useful purpose save to balance the figures of the other tables. If the Commissioners could but inform us of the reasons of such transfers, and the effects it produced, this table might really be of value in estimating the efficacy of change of location in the treatment of insanity.

The prognostication we were bold enough to make eight years ago, viz. that as time went on the process of renewing reception orders by special reports and certificates would become so complicated as to result in an increase in the number of readmissions under fresh reception orders, has this year been verified; in 1899 there were more discharges on this account than in any year since 1892. Recoveries during 1899 numbered 7575, an increase of 454 on the total of 1898, the increase being mainly in county and borough asylums (401). The percentage of recoveries to the total number of admissions rose again from 36·87 in 1898 to 39·26 during 1899, a proportion higher by ·41 per cent. than the average ratio of the last decade. We are pleased to note that the reasons urged by us in 1898 in favour of a comparison table giving the ratio of recoveries to average number resident—this in our opinion being the only fair method of computation when dealing with deaths *en masse*, and not with individual asylum deaths—have borne fruit; and now, even as last year, such a table is supplied (VIII *a*). Illustration, as we have from year to year maintained, is thereby

afforded how there continues to be for each quinquennial period an absence of improvement in the recovery rate (an improvement we would certainly expect to find with all our boasted scientific, medical, and sanitary progress of the last decennium),—an absence explainable, however, by the continued influx into pauper asylums of non-recoverable cases, especially senile dements. These tables, for other reasons as well, merit careful study. An additional item of interest to be gained from them is the fact that during the past twenty years the female recovery rate has diminished more rapidly than the male; and when we add to this the results obtainable from death rate tables, from which it can be seen that the death rate for senile females also diminishes in a higher proportion than the senile male death rate, the explanation is to hand of the excess of females, especially senile cases, in all institutions. Why their recovery rate and their death rate should show such diminution is a problem which ere long will call for solution.

The deaths during the year rose in total from 7602 to 8160, and the increase was almost wholly in pauper asylums, raising the death rate per cent. on daily average number resident from 9·45 to 9·87. The average death rates in institutions shows some remarkable variations. One can understand how death rates may fluctuate to an extraordinary degree in some particular institution, and such an occurrence as an average death rate for the decade slightly higher than the average total for county and borough asylums is a matter of easy comprehension, but will some one kindly elucidate figures so curiously discrepant as the following?—for registered hospitals an average death rate of 6·61, for provincial licensed houses an average death rate of 8·24, and for metropolitan licensed houses one of 12·04. Why should the death rate in metropolitan licensed houses be almost double the death rate in registered hospitals? We observe, too, that the male death rate for 1899 in metropolitan licensed houses was no less than 16·77. There is probably a very good and sound explanation for this, but what is it? We append, as in former years, a table calculated from the Commissioners' figures to show how the insane death rate tends to approximate to the sane death rate as age advances, how the death rate among insane women diminishes in a more rapid progressive ratio as age advances than among men, and how for each censal age period the sane compares with the insane death rate. Taking those age periods at which insane deaths (excluding senile cases over eighty-four) occur more frequently, and in which the insanity is presumably an important factor, we find that the death rate among the insane is 8·91 times more frequent among males, and 7·75 times more frequent among females than amongst sane males and females at the same age periods.

Table XV gives us the causes of death during 1899. The nomenclature here adopted by no means follows the Registrar-General's admirable classification. It is, in fact, a list of causes illustrative of the ingenious originality of some medical officers, and the quaint ignorance of others in giving causes of death. For the credit of this publication, if for no other reason, it were well could this important matter receive the early attention of the medical section of the Board—some of the items merely provoke a smile. We here summarise for the sake of

reference the percentages of the principal causes of death to the total number of deaths for the past five years. We have of necessity to make use of the inaccurate and vague appellations given as causes of death in some instances.

Age periods.	Death rate per 1000 reported insane, 1898.	Death rate per 1000 whole population (estimated), 1898.	Insane to sane proportionate death rate.
Under 5	m. — f. —	m. 60·7 f. 51·0	m. — f. —
5—9	m. 46·9 f. 8·5	m. 3·5 f. 3·6	m. 13·4 to 1 f. 2·3 to 1
10—14	m. 42·4 f. 39·3	m. 2·1 f. 2·2	m. 20·1 to 1 f. 17·8 to 1
15—19	m. 63·5 f. 55·1	m. 3·4 f. 3·3	m. 18·6 to 1 f. 15·4 to 1
20—24	m. 61·3 f. 59·7	m. 5·0 f. 4·3	m. 12·2 to 1 f. 13·4 to 1
25—34	m. 69·6 f. 60·7	m. 6·6 f. 5·9	m. 10·5 to 1 f. 10·2 to 1
35—44	m. 101·0 f. 55·2	m. 11·3 f. 9·4	m. 8·9 to 1 f. 5·8 to 1
45—54	m. 100·8 f. 60·3	m. 18·3 f. 14·2	m. 5·5 to 1 f. 4·2 to 1
55—64	m. 120·9 f. 82·3	m. 34·5 f. 27·6	m. 3·5 to 1 f. 3·0 to 1
65—74	m. 209·4 f. 137·0	m. 64·7 f. 58·8	m. 3·2 to 1 f. 2·3 to 1
75—84	m. 404·0 f. 293·3	m. 142·1 f. 131·1	m. 2·8 to 1 f. 2·2 to 1
85 and upwards	m. 619·0 f. 429·4	m. 281·2 f. 258·6	m. 2·2 to 1 f. 1·2 to 1

Post-mortem examinations were made in 6223 of the total number of deaths—a percentage of 76·2. From other tables we gather that post-

Causes of death.	1895.	1896.	1897.	1898.	1899.
General paralysis	20·00	20·41	18·97	17·44	17·74
Phthisis pulmonalis	14·88	13·88	14·57	14·38	14·37
Senile decay	7·71	8·69	9·31	9·10	9·12
Pneumonia	7·01	6·36	6·13	6·96	7·15
Epilepsy	5·16	4·89	4·66	5·23	4·96
Cardiac valvular disease	4·78	5·73	6·02	6·45	5·76
Exhaustion from mania and melancholia	3·87	3·62	3·65	3·37	3·66
Apoplexy	3·16	3·21	3·13	2·90	2·74
Chronic Bright's disease	2·92	2·56	2·72	2·96	3·12
Bronchitis	2·89	2·46	2·09	2·58	2·75
Organic disease of brain	2·60	3·50	3·46	3·25	3·62
Cancer	2·01	2·56	2·13	2·11	2·12
Accident	·40	·42	·45	·47	·45
Suicide	·25	·14	·28	·29	·27
Other maladies	22·36	21·57	22·43	22·51	22·17

mortem examinations were made in 79·7 per cent. of deaths in County and Borough Asylums, in 58 3 per cent. of deaths in Metropolitan Licensed Houses, in 27·1 per cent. of deaths in Registered Hospitals, and in 22·1 per cent. of deaths in Provincial Licensed Houses.

The Commissioners continue persistently to publish their utterly fallacious tables (xvii *et seq.*) dealing with occupation ratios to population of the insane. The truth unfortunately is that no one, not even the Lord Chancellor, has ever troubled to study these yearly average ratios of lunatics to population classified according to occupations. Some sympathetic soul may possibly have shuddered over the gloomy information contained in these columns relative to the insanity of "vermin-killers" and "hat-makers (not straw)," unaware that his shudder was wasted by reason of a ratio calculation for 1899 being based on a numerical population estimate for 1891 in some cases, and for 1871 in others, but more than this has never happened. Will the Commissioners not soften their official hearts and give us some sensible statistical information?

With pleasure do we once more welcome our old friends "mania, melancholia, dementia, ordinary and senile, congenital insanity, and other forms" as types of mental diseases. The Commissioners' Report would surely be unrecognisable without this valuable classification of the insanities. For nearly a decade have we begged for a change, but we find we ask only not to receive.

According to the Table (XXI), 47·8 per cent. of cases admitted during the years 1895–99 suffered from mania, 28·5 per cent. from melancholia, 10·8 per cent. from ordinary dementia (whatever that may be), 5 per cent. from senile dementia, 4·8 per cent. from congenital insanity, and 3·1 per cent. from "other forms."

The percentage proportion of the quinquennial average admissions which were classified as first attacks numbered 71·1. It would be far more satisfactory could we have actual ratios to total annual admissions of these "first attacks" with a classified list of the nature of the insanity. Then with respect to those classed as "not first attacks" there is a mine of information stored away in the cellars of the Commissioners' offices with respect to the recurrent, relapsing, remittent, and intermittent insanities, and the various forms of circular insanity, waiting for some venturesome reformer who will have the temerity to work outside the grooved and beaten pathways of the Commissioners' methods.

Comparing the tables furnished by the Commissioners dealing with the quinquennial (1894–98) average ratios of epileptics, general paralytics, and suicidal cases (Tables XXIII and XXIV) admitted into all institutions, with similar tables for the quinquennium immediately preceding (1890–94), we have to note an apparent diminution in each of these conditions thus:—General paralysis in 1894–98 was represented by 12·7 per cent. for males, and 2·8 per cent. for females, whereas in 1890–94 the ratios were 14·1 per cent. and 3·2 per cent. respectively: epilepsy, too, has fallen from 8·2 per cent. to 7·7 per cent., and suicidal cases have diminished from 25·4 to 24·1 per cent. But is this really so? The Commissioners remark on this diminution in their preamble, evidently quite satisfied that there are really fewer general paralytics,

epileptics, and suicidal cases; while the fact of the matter is that the diminution is only an apparent one, owing to the great increase of late in the total number of admissions into asylums. We have not the least doubt that next year the same superficial view of these numerical aberrations will again be solemnly recorded.

In drawing up their average tables it would assist those not accustomed to statistical summaries if the word "average" could be repeatedly affixed. For example, "private females 262, pauper females 2264, total 2527" is absurd, as anyone who can add will see; but "average private females 262, average pauper females 2264, average total females 2527" is sense, and may be perfectly correct.

The Commissioners remark with respect to Table XXV that they do not regard the information relative to the causes of the insanity of patients as affording a very reliable guide to the causation of insanity in general (page 5); while they also (foot-note page 136) say, "These causes are not taken from the statements in the papers of admission of the patients, but are those which have been verified by the medical officers of the asylums"—ergo, the medical officers' verifications are not very reliable as guides to the causation of insanity. We do not for a moment dispute this inference, we are but too painfully aware how rashly precipitate many medical officers are in leaping at conclusions when endeavouring to estimate the causation of insanity,—in fact, such veiled reproof is the only interesting item in this causation table, for all its old inaccuracies pointed out by us year after year remain in stereotyped form; so great, however, is the influence of official authority, that these tables of causes are heedlessly employed by medical officers of institutions in their annual reports, when a little thought and quite a superficial study of the list of "causes" will prove to them how incorrect they are.

Table XXVII, giving the "causes" of general paralysis, is just as amusing as usual. We challenge anyone possessed of but the slightest smattering of knowledge with respect to the ætiology of insanity in general, and of general paralysis in particular, to read this table without a smile. Three instances will suffice to provoke hilarity. "Love affairs (including seduction) ·2 per cent. males." "Old age ·4 per cent. females." "Previous attacks 4·5 per cent. males, and 7·6 per cent. females." There is, however, one consoling item in this medley of incompatibilities—there is actually an increase from 7·6 per cent. to 9·1 per cent. of cases of general paralysis with "venereal disease" as a cause. Evidently the medical officers of asylums are slowly waking up to the most recent advances in scientific knowledge. The term "venereal disease" is, however, far too vague; gonorrhœa is a venereal disease, and can hardly be called a cause of general paralysis.

The cynical celibate has cause for mirth in Tables XXIX and XXXI, wherein the Commissioners demonstrate the fact that 68·8 per cent. of general paralytics and 48·9 per cent. of suicidal cases admitted during the five years 1894–98 were married.

The number of voluntary boarders remaining in registered hospitals on January 1st, 1900, was 76, in metropolitan licensed houses 18, and

in provincial licensed houses 43. Of the 296 admitted as boarders during the year, 81 were certified as patients.

The admissions into the County and Borough Asylums during 1899 numbered 16,897, and of these 18·2 per cent. had previously been discharged from institutions for the insane. The recoveries amounted to 6569, and the deaths to 7462. Post-mortem examinations were made in 79·7 per cent. of deaths. The suicides placed to the credit of these institutions during the year number twenty-one, but in five of the cases the act was committed before admission. Of the sixteen in which the act occurred in the institution four were by strangulation (all males), four by cut throat (two males and two females), two by poison (one of each sex), two by drowning (one of each sex), and one each by swallowing foreign bodies, by precipitation before a train (both females), by striking the head against a tree, and by abdominal wounds (both males). There was one murder, and one accidental suffocation during an epileptic fit. The highest percentages of general paralysis were found in the following County and Borough Asylums:—Wakefield 6 per cent., Birmingham (Winson Green) 6 per cent., Hull 7·8 per cent., Newcastle-on-Tyne 7 per cent., Sunderland 6·3 per cent.

The Commissioners, apologetically almost, comment on the fact that some of the registered hospitals have hitherto "inadequately discharged the functions of benevolent establishments, and in the application of their—in some instances—very large incomes have shown a comparative disregard of the principles upon which they were founded." True, but why "comparative" and not "complete?" Such institutions have long been regarded as nothing less than private asylums highly favoured in not having to be licensed. There were five suicides in registered hospitals (Table IV, Appendix B, says there were only three)—one by a voluntary boarder,—and one death by a fall from a window, suspiciously like a suicide. The Commissioners remarking on one of these suicides make the following quaint observation:—"A female patient . . . had been received . . . on the 7th January, suffering from suicidal melancholia, but not apparently in a state to require special supervision, committed suicide on the 17th January." We have not before heard of such a form of suicidal melancholia—perhaps there are similar varieties of homicidal insanity.

Licensed houses—the Commissioners by the way have the total number of these institutions right this year—in the metropolitan area had but one suicide, and provincial licensed houses four suicides (Table IV, Appendix B, however, says there were only three) during the year. The Commissioners very properly comment severely on the "most reprehensible practice" indulged in by certain licensed houses, receiving paupers, in bribing relieving officers to favour them with patients. It is no wonder, then, that there are periodical outcries against the existence of such institutions when food for adverse criticism is so readily supplied by such disgraceful commercialism. There are many who hold that houses licensed for the reception of private patients should not be permitted to receive paupers; the principle was most properly condemned when Lord Shaftesbury was chairman of the Board.

Some pages of the Report are devoted to the consideration of the

diversion of asylum accommodation, to the recognition of the latest departures in asylum construction, and to a consideration of the pursuit of pathological research in asylums. The definition of seclusion fails to provide for conditions which the Commissioners in times gone by have emphatically designated to be seclusion, *e. g.*, they have deemed it seclusion when a patient has been placed in a single room with the door partially closed and an attendant seated outside; they have also deemed it seclusion when a patient has been placed in a corner of an airing court isolated from the rest of the patients by a small barricade of chairs. Until quite recently they defined seclusion as "enforced isolation by day," their definition now demands a room with a door, and a fixed period of time for all institutions.

It needed a dictionary to disclose the meaning of the archaic term "shippon," and "aural hallucinations" for "auditory hallucinations" smacks of the days of George III.

We are pleased to note that the Commissioners make special reference to the question of pensions to asylum medical officers and subordinates. They quote at length their views on this matter from the Report of 1891, and add as a rider thereto the following cogent opinion:—"Even if the granting of pensions were not made absolutely compulsory, as we think that it should be, it would at least appear to be a mere act of justice to give the same freedom of action to Visiting Committees in this particular as they already possess in respect of salaries, and of other matters of no less importance which have direct reference to asylum management." This timely reference to pensions just prior to the advent of a new parliamentary session will, no doubt, result in the re-insertion in the Lunacy Bill of those clauses dealing with superannuation which had unfortunately been dropped during last session.

Forty-second Annual Report of the General Board of Commissioners in Lunacy for Scotland. Edinburgh, 1900, pp. 157. Price 1*s.* 3*d.*

Judged by the annual bulletins on the subject, the nation's mental[1] health, with the exception of the distressful island, has during the past year made considerable progress in the direction of improvement. In 1899 England, whose population is estimated to increase 1·17 per cent. per annum, has added only 1·45 per cent. to its total lunatics, and while its first admissions are greater by 1·53 per cent., its total admissions are less by 0·13 per cent. In Scotland the record is more favourable still, for while its estimated annual increase of population is 0·77 per cent., its total lunatics are increased by only 0·17 per cent., and there is a decrease in the total admissions and of first admissions equivalent to 2·88 and 0·56 per cent. respectively. What a contrast does this offer to the condition of affairs in Ireland! Here, with a population that is estimated to be diminishing at the rate of 0·28 per cent. per annum, the record for the past year shows an increase in the total number of lunatics of 2·75 per cent., in the total admissions of 2·16 per cent., and in the first admissions of 6·07 per cent.

The general result for the whole of the United Kingdom, even in spite of the lamentable condition of Ireland, is, as compared with

previous years, not at all unfavourable. The whole population is estimated to increase 0·97 per cent. annually. The total lunatics have increased 1·66 per cent. during the year, the first admissions 1·88 per cent., and the total recorded admissions have decreased 0·18 per cent. Scotland may well congratulate itself on the high position it takes, for its record shows that it practically is alone responsible for the generally gratifying condition of affairs which is revealed by the Lunacy Blue-books.

It is not easy, if at all possible, to say from the data given, how far the improved state of affairs is one which is shared by all parts of the country. In Table XVIII of Appendix A the calculations are based upon the population of 1891, and it results from this that the proportion of lunacy must be stated too highly for those counties where the population is an increasing one, and too low in the opposite case. The result is therefore misleading and most anomalous when one year is compared with that preceding. Taking the figures as they stand, it appears that while the total pauper lunatics have increased by 6 per 10,000 for the whole country, Argyle shows a decrease of 24, Bute of 27, Kinross of 30, and Wigtown of 19; and increases appear in the case of Elgin of 23, Peebles of 20, Sutherland of 45. The uselessness of basing proportions upon a population of nine years ago is apparent. The only reliable conclusion to be drawn is that the proportion of lunacy continues much higher in some parts than in others.

Certain traditions cling tenaciously to particular districts, and so also is it with moral customs and physical or mental characteristics. Sexual laxity, as estimated by the illegitimate birth rate, has always been and continues to be a marked feature of the extreme north-eastern and south-western groups of counties. In the same way lunacy maintains a uniformly, and, we believe, an increasingly high rate in the northern and highland divisions. That this latter is, as pointed out by the Commissioners, largely due to the effects of emigration there can be very little doubt. They do not seem convinced, however, that intermarriage is responsible to any great extent. It stands to reason, nevertheless, that if there is a constant drain from those districts of people who, by their discontent with the conditions of life which there exist, and by their seeking more promising fields for their energies, prove their fitness, and if at the same time there is no influx of fresh blood into the districts, the general tendency must be towards the intermarrying of those who by remaining prove themselves relatively unfit.

Incidental mention is made of the bearing which size of family has upon the prevalence of lunacy. It is stated that the average number of children born to each marriage in the northern and highland divisions is very high. In all probability this is so, even though the registrar's returns show a birth rate in these parts which is considerably below that of the industrial parts, for at the same time the marriage rate for these parts is much under the average. We confess a sort of satisfaction at seeing this question raised, for a feeling amounting to something more than mere suspicion has for not a little while possessed us that a high family average is not, to say the least, conducive to sanity. This

view will no doubt be regarded as shockingly heterodox, but nevertheless it has a rational basis in the general physiological law which maintains that rapid multiplication implies weak units. Largeness of family does not, in our opinion, prove superiority of progenitors, nor are virility and such like terms the equivalent of a high standard of vitality. Neither are the effects of excessive production upon the offspring for good. If, then, there is a relatively high family average in the northern and highland divisions of the country, we would look upon that at one and the same time as evidence of comparative unfitness, and as one of the contributory causes of the excessively high rate of lunacy. And the moral of that is, as the Duchess says, and the stock-breeder practises, quality, not quantity, first. There is very considerable similarity between the conditions which exist in these parts of Scotland and the extra-Ulster parts of Ireland,—continuous emigration of the fitter specimens of the community, accumulation of the relatively less fit, a tendency towards intermarriage, a high family average, a high and increasing rate of lunacy.

There are certain large social changes taking place which, in our opinion, are of good omen, and may be responsible to not a slight extent for the improvement which is noticeable lately as regards the mental health of Scotland as well as Engiand. The diminishing marriage rate, the advance of the age at which marriage is contracted, the diminishing birth rate, legitimate as well as illegitimate, the decreasing size of family,—all these seem to us to be indications of a higher development of the power of self-control, and a tendency therefore towards mental stability. Experience shows that just as prisons are no remedy for crime, so asylums are no remedy for lunacy. These institutions are merely part of the penalty we have to pay for our so-called civilisation. The remedy for insanity is not to be looked for in an increase in the recoveries of persons who have become unhinged, but, as Dr. Urquhart rightly says, in prevention, the means of which are to be found in a wider diffusion of knowledge in the real and true sense of the term, knowledge of nature's law, the disobedience of which is fraught with such lamentable consequence. Scotland's motto, *Nemo me impune lacessit*, rightly interpreted, is indeed of far-reaching significance.

The year's record shows a steady continuance of the diminution in the number of pauper lunatics accommodated in private dwellings, which has almost uniformly characterised each year since 1890. It seems strange that such a system, the economic advantages of which are so unfailingly brought forward in the reports of the Board of Lunacy, should not be more generally adopted by the authorities of a nation which is credited with a high sense of the value of money. The saving effected is by no means a small one, but it is one which applies to the provision of accommodation, and not to the cost of maintenance; and so long as the responsibility continues divided as it is at present the parochial authorities can hardly be expected to exert themselves greatly to extend this method of providing accommodation. It is but little use urging the extension of this practice upon the authority which is liable solely for the maintenance of the patients in order to curtail the expenditure of another authority, which is charged

with the responsibility of providing the necessary accommodation. The stimulus is too indirect, and the weakness lies in the division of responsibility. The money comes ultimately from the same pocket, but all the same there is no sufficient inducement to the parochial authorities to take and maintain energetic action.

The general tendency since 1890 has been towards the diminution of the numbers of insane poor accommodated in poor-houses and private dwellings, and a corresponding increase in the population of asylums, a condition of affairs due, as the Commissioners point out, to two causes, a higher rate of admissions to asylums, and a diminished discharge rate. The death rate is a factor which has operated in the opposite direction, but there is nothing in the tables of the Report to support the view that the rise of the death rate is in any way due to the fact that aged patients are being sent to asylums with increasing frequency. The figures given under the heading "Old Age" in Table X, Appendix A, showing the causes of death in establishments (the combination of this cause with "general debility" is confusing), indicate during the past twenty years no rise, but a quite unmistakeable fall, and the two factors which are shown by this Table to have adversely affected the death rate are in reality "general paralysis," and "fever, erysipelas, cancer, etc.," and there is little doubt that in this last section it is influenza which has been the chief factor.

The results attained in certain counties more than justify Dr. Sutherland in his opinion that it is possible to accommodate not less than 33 per cent. of the pauper lunatics in private dwellings, for in six counties forming the extreme northern part of the country no fewer than 43 per cent. are so provided for, as compared with 20·7 per cent. for the whole country. These counties are at one and the same time the poorest and the most insane, and the burden of their pauper lunacy seemingly bears so heavily upon them that the economic advantage of the system appeals readily to the authorities, as well as to the relatives of the patients, the condition of affairs as regards the guardianship of those boarded out in these counties being just the reverse of that which prevails in the country as a whole. In this group of counties 72 per cent. of the patients are under the care of related guardians, the proportion for the whole of Scotland being only 38 per cent. Where under the system complaint arises as to the treatment of the patients, it applies mostly to cases which are under the care of relatives. One might argue that the poorer the guardian the better the care, even when it is that of relatives, but in all probability the explanation is that in those parts where the pinch of poverty is not so painfully felt the profit to be extracted from a weekly sum of 6*s.* 5*d.* is not looked upon as sufficient recompense for the trouble involved.

In America the State of Massachusetts has, after an experience of eleven years, decided, for various reasons, in disfavour of the system, and so also has the State of New York. Neither of these States can be charged with anything in the nature of illiberality or unenlightenment in the treatment of their insane poor, for is it not recorded that the chief criticism of a "famous Scotch superintendent" upon American institutions had reference to their "extravagance"? The sum paid for maintenance by Massachusetts was equal to 13*s.* 6*d.* per week, and the

demand for patients was always in excess of the supply, but withal the difficulty of ensuring proper guardianship was found to be so great that the authorities felt compelled to discourage the system. Such is the experience of two advanced and enlightened American States, and though the social conditions appear to be such as lend themselves not unreadily to the system, it would seem to be increasingly difficult to persuade people to burden themselves with the care of persons of unsound mind at the remuneration offered. The difficulty of guardianship is exemplified by the occurrence during the year of three serious "accidents," an illegitimate birth, one death by burning, and another from homicidal poisoning. It is only right, however, to mention that the like accidents are not unknown in establishments, for two illegitimate births occurred in poor-houses, while seven suicides and one death each, from a fall, scalding in a bath, and exposure, occurred in the records of asylums and poor-houses.

Scotland has just reason for thankfulness and congratulation. There is ample evidence in this report of zealous effort to safeguard the interests of its insane, and to make the burden of its pauper lunacy as consistently light as may be. The improvement in its mental health, too, ought to be a source of gratification, and personally we feel a real pleasure in the fact that the prophecy which we ventured to express in the review of the Report for 1897 has not turned out to be a false one. This latest record is a most promising one, and there is no apparent reason why the good progress should not be maintained.

Forty-ninth Report of the Inspectors of Lunatics (Ireland) for the Year 1899.

While the Inspectors have to record, as usual, an increase in the number of insane under care in Ireland, the increment was less by 155 in 1899 than in the previous year. In the year 1894 the increase was 378, the average for the previous ten years having been 330. In 1895 the increase rose with inexplicable abruptness to 616; and during the following three years this rate of increase was maintained, the numbers being 609, 624, and 714 respectively. We venture to hope that this latter figure represents the high-water mark of the increase of lunacy, as in 1899 the increment fell to 559. The total number under detention on January 1st, 1900, was 20,863, representing a ratio of 460 per 100,000 of estimated population. Twenty years ago this proportion was only 250, so that after the census of next year shall have given us a correct return, it will probably be found that the ratio of insane to population has about doubled itself during the past twenty years.

The distribution of the insane population is given in the following summary, that of the previous year being included for purposes of comparison:

	On 1st January, 1899.			On 1st January, 1900.		
	Males.	Females.	Total.	Males.	Females.	Total.
In District Asylums . .	8,323	6,966	15,289	8,607	7,302	15,909
In Central Asylum, Dundrum	148	21	169	141	21	162
In Private Asylums . .	327	387	714	318	381	699
In Workhouses . . .	1,674	2,365	4,039	1,634	2,355	3,989
In Prisons	2	—	2	1	—	1
Single Chancery patients in unlicensed Houses . .	48	43	91	55	48	103
Total . .	10,522	9,782	20,404	10,756	10,107	20,863

From this table it appears that the increase was confined to the district asylums, there being a decrease in the numbers in private asylums, workhouses, and in Dundrum. In the short table giving the relative ratios of insane in district asylums and in workhouses for each quinquennial period since 1880 it is shown that the proportion of the total number in district asylums has risen from 67 per cent. in 1880 to 76 per cent. in 1899; while the proportion in workhouses has fallen from 27 to 19. In other words, there has been a rise of 9 per cent. in the case of the district asylums, and a fall of 8 per cent. in the case of workhouses,—a fact which, as has been repeatedly remarked, entirely supports the view that the increase in the number of insane in asylums to a large extent merely denotes a transference of uncertified lunatics into the certified class. The additional fact, as set forth in a table on page 13, that the percentage of workhouse admissions to total admissions has risen from 12·79 in 1890 to 18·79 in 1899, an increase of 6 per cent. in nine years, may be given in corroboration. But it is hardly necessary to labour out this point further. It has been maintained for many years by all those who have studied the question intelligently and who are best qualified to judge, and it is now almost universally accepted. It may be regarded, indeed, as having passed from the region of theory into that of established fact. But if anything further is needed in proof of it, it is supplied by another fact stated in the Report, that while the admissions into district and private asylums since 1881 have increased by 41 and 39 respectively—that is to say, in very much the same ratio,—the numbers actually resident in district asylums have increased by 77 per cent., while in private asylums the increase has only been 10 per cent. The great discrepancy in the proportional increase in the number of those admitted and of those held under detention in district and private asylums respectively also goes far to support the accumulation theory, "inasmuch as a greater proportion of the patients are removed from private asylums than from district asylums."

The total number of admissions into district asylums in 1899 was 3549, a rise of 80 over the previous year. Of these 2856 were first admissions and 693 readmissions. With respect to these, it is to be noted that the first admissions show an increase of 180 over those of the previous year, while there was a decrease of 100 in the readmis-

sions, these latter being fewer than in any of the preceding seven years. The caprice of lunacy statistics is puzzling, and the foregoing figures only show how delusive it is to form any conclusions on the data for a given year. On page 18 of the Report a table is inserted which gives the admissions for the past twenty years. By dividing these into periods of five years we get the following result:

Quinquennium ending	Average first admissions.	Rate of increase.	Average re-admissions.	Rate of increase.	Average total admissions.	Rate of increase.
1884	2100	—	490	—	2590	—
1889	2288	6·1	619	36·3	2847	10 0
1894	2424	8·8	720	16·3	3144	10·4
1899	2621	8·1	748	4·0	3369	7·1

A perusal of this table will perhaps cause a subsidence of alarm, which the increase of 180 in first admissions might not unnaturally excite. From it we learn that if we take the average number of first admissions for each quinquennium the rate of increase during the second over the first was 6·1 per cent., and of the third over the second 8·8, and of the fourth over the third of 8·1, being a sensible reduction from the previous quinquennium. On the other hand, in the case of the readmissions a most remarkable fall has taken place, the rate of increase for the same periods being 26·3, 16·3, and 4 per cent., respectively. And lastly, if we take the total admissions we find the ratio to be 10·0, 10·4, and 7·1 per cent., showing also a reduction for the last period. These results are somewhat reassuring, but they are probably not quite as favourable as they might at first sight appear when it is remembered that in Ireland we have a waning population; and if the proportions of admissions to population could be given the ratios would be higher. This is the only rational basis on which to compute the increase of lunacy, and until after the census it will be impossible to form a correct estimate.

Of the total admissions nearly 70 per cent. were sent in on warrant. This anomalous, illogical, and unjustifiable mode of consigning insane persons to asylums by a process of sworn information and arrest, as if they were criminals, is one more example of Ireland being regarded as a "separate entity." In no other civilised country is such a system tolerated; and although verbal protestations issue periodically from the Lunacy Office, the authorities still maintain their *non possumus* attitude, and no serious effort is made to lift the wheels of lunacy administration out of the ruts of a stupid conservatism.

The recoveries in district asylums numbered 1338, an increase of 59 over last year, and give a percentage of 37·7 on admissions, that for the previous year being 36·9.

The deaths were 1132 in number, or 7·2 per cent. on the average number resident. The highest death rate, 11·9, occurred in Omagh, and the lowest, 3·9 per cent., in Ennis Asylum. In 311 cases the cause of death was verified by post-mortem examination, as against 298 in the previous year. This is but a small proportion as compared with what

is achieved in England in this way. But in the mind of the Irish peasantry any dim conception of possible advantage accruing to the living from autopsies is almost wholly obscured by the feeling that it is a desecration of the dead. This, and not apathy on the part of the medical officers, is the great obstacle to the performance of post-mortem examinations, which, in country districts at all events, are almost limited exclusively to unclaimed bodies, or those of patients whose relatives are unable to bury them.

Only one death was due to suicide (by hanging), and four to misadventure, two of them being due to suffocation from impacted food, one to poisoning from eating the root of a water-parsnip, and the fourth patient died from injuries received from coming in contact with the asylum steam engine.

Of the total number of deaths (1132) 321 were due to consumption, a percentage of 28·3; and 50 were recorded as due to general paralysis, a proportion of 4·4 per cent. If we examine the figures for the last decade, as given in a table on page 21, we find that in the first years the deaths due to these two causes were 28·9 and 2·47 per cent. respectively; in the last quinquennium the percentages were 29·2 and 3·9, so that an increase in mortality from these two causes appears to have taken place.

In too many asylums insanitary conditions may be predicated, judging from the amount of zymotic disease recorded. Apart from influenza, a disease which is due to epidemic influence, and with the causation of which probably sanitary or insanitary conditions have very little to do, enteric fever, diarrhœa and dysentery, and erysipelas are the zymotic diseases most prevalent in Irish asylums. Ballinasloe and Sligo appear to be in the most unsatisfactory condition in this respect. In the former during the year 32 patients were attacked with dysentery, 8 patients and 10 of the staff with enteric fever, 9 patients and 6 of the staff with febricula, "which is now recognised as being often a mild or disguised form of typhoid;" there was 1 case of erysipelas, and on the staff 1 each of diphtheria and measles. In Sligo there were 15 cases of enteric and 5 of "continued fever," with 6 deaths; also 2 cases of erysipelas and 4 of diarrhœa, with 2 deaths from the latter. In Downpatrick 28 cases of dysentery occurred, with a mortality of 5; also 2 cases of erysipelas. The cause of the dysentery here has not so far been discovered, and the outbreaks have occurred "in spite of every precaution to prevent them." The effect of having a pure water-supply is well shown in the case of Castlebar Asylum. Some years ago the water was obtained from a tainted source, and zymotic disease was very prevalent there. This was ordered by the inspectors to be closed up and a pure supply obtained, and now the amount of zymotic disease is insignificant, only one case of enteric having occurred during the year.

In many asylums where there has been over-crowding this condition also makes thorough sanitation difficult or impossible. As regards enteric fever, however, with an efficient drainage system and an uncontaminated water-supply there should be none, unless due to imported cases. Committees should recognise their responsibilities in this most important matter, and take the necessary steps to secure at least these two essential elements of good sanitation.

The average cost of maintenance was £23 16*s.* 3*d.*, or about 9*s.* per head per week. The maximum rate was in Belfast Asylum, £28 16*s.* 3*d.*, and Sligo has the honour (?) of being the lowest, £19 10*s.* 6*d.* There has been in latter years on the whole an upward tendency in the *per capita* cost of maintenance of patients in Irish asylums. There has been a huge increase in the aggregate cost, which ten years ago was £252,856, while last year it was £386,306, a rise of £133,450 in ten years, or over 52 per cent. The inspectors remark that the increase in the aggregate expenditure has been greatly in advance of that of the capitation cost, "thus showing that the increased total expenditure has not been to any great extent due to more lavish outlay in the method of treating and caring for the insane, but rather to the increase of the numbers under care." Still it does indicate that more money is spent now than formerly on improving the condition of the insane in Irish asylums, which is a matter for congratulation, as that condition some fifteen or twenty years ago was far from satisfactory, and in some asylums there is still a good deal to be desired. This fact is quite evident from the reports on individual asylums which appear in the Appendix.

For some few years past some additional tables—or shall we call them tablettes?—have been creeping into the body of the Inspectors' Report, such as a return of the ratios of lunatics under care to population for a series of years, now extended to twenty; another showing the admissions, classified into first and readmissions, for the same period; another giving the admissions from workhouses, with percentages of total admissions; others giving the causes of death from different diseases for each of the district asylums and the causes of death for all asylums for the past ten years, with some other less important ones. We are glad to see these even, doled out as they are in a somewhat niggardly fashion, but hope that they are only instalments of much more liberal statistical contributions of this class to be looked for in the near future. Why not take the bull by the horns? Amplify these tables and add others such as appear in the English blue-books, but not (as yet) in the Irish ones, and the value of these reports will be considerably enhanced. Let us hope that from the new census onward fuller and more complete returns will be furnished. If once started on proper lines the additional calculations for each year would not involve any very extraordinary trouble, and information which is only now obtainable at the cost of a deal of time and labour, and the worrying process of "hunting up," would be served up ready for consumption by the student of lunacy statistics. To simplify, condense, and summarise the scattered facts and figures of a department—this is surely the proper business of the central office. This the public expects of it; less than this the official conscience should not reconcile itself to give.

The total number of insane in workhouses on January 1st, 1900, was 3989. A table giving the figures for the past twelve years shows only unimportant variations. In each year the number has been either a little under or a little over 4000. The condition of this unhappy class is still anything but satisfactory. "We are unable," say the Inspectors, "to record any general improvement in the condition of the insane inmates of Irish workhouses." It is to be feared that Boards of Guar-

dians do not at all realise their responsibilities on this head; and, indeed, they show an amount of callousness in this respect which indicates a want of humane feeling on their part. The average guardian has his eye much more on his constituents, the ratepayers, than on his helpless charge, of whom he is supposed to be the guardian; and "keeping down the rates" is too often the be-all and end-all of his policy. That the insane should be located in workhouses at all, after past experience of how they are treated there, is an anomaly, and, on the whole, a rather cruel arrangement. With no one to attend to them (in numbers of instances) except untrained pauper inmates, they are scarcely kept even clean and tidy, and the class of food they get may be left to conjecture; in fact, the most helpless inmates of the workhouses, who are most in need of kindly care and treatment, are just those who get none of it. It is a state of things which ought to be put an end to.

As regards private patients, there was a decrease of 15 during the year. The number of admissions was just the same as in the previous year, but on examining the figures for a series of years a steady increase is to be noted. The average number of admissions into private asylums during the last quinquennium of the past twenty years shows an increase of 25·8 per cent. over that of the first. A general improvement seems to have taken place in these institutions, and "there is a manifest desire on the part of most of the proprietors to render the surroundings of their establishments in keeping with modern requirements for the care and treatment of private patients."

Naturalism and Agnosticism (the Gifford Lectures delivered before the University of Aberdeen in the years 1896–98). By JAMES WARD, Sc.D., Hon. LL.D. Edinburgh, Professor of Mental Philosophy and Logic in the University of Cambridge. London, Adam and Charles Black, 1899, demy 8vo., 2 vols. 18*s.* net.

The history of philosophy resembles in one respect the history of a great lawsuit. It exhibits a secular conflict in which the burden of proof is from time to time shifted from the one side to the other; and each such alternation marks the close of an epoch. Thus, in turn, each antagonistic opinion holds the citadel of general consent, and endures for a time the increasingly effective attacks of its adversary, by which it is at length ousted and replaced. Thus have freewill and determinism been by turns triumphant; thus, realism and nominalism alternately defeated each other; thus, in later days, materialism and spiritualism have striven with varying success. In this latter controversy Dr. Ward's book marks definitely the close of one epoch and the beginning of another. It is emphatically a great book. Whenever the history of philosophy is again written, James Ward will occupy one of the chief seats in that synagogue wherein Aristotle, Augustine, Anselm, Erigena, Aquinas, Bacon, Descartes, Newton, Locke, Leibnitz, and other intellectual giants *sedent et din sedebint.* During the last five and twenty years a materialism, crude at first, but year by year

becoming more refined and more subtle, has displaced a cruder spiritualism, until at length, when it held the field, it had ceased to call itself, though it had scarcely ceased to be, materialism. This is attacked by Professor Ward under the name of Naturalism. He has attacked it with such success, that henceforward the burden of proof is changed once more, and it is for those who disagree with him to show that he is wrong, rather than for him to further establish his position.

"Natural theology" is as extinct as the dodo. There have of recent years been men of science who were deeply religious; but they have been religious in spite of their scientific knowledge rather than because of it. They remained religious only by keeping science and religion apart. They jealously guarded their religion from contact with science, lest the one should shrivel and die under the icy touch of the other. And the same mode of conserving religion has been adopted by the theologians. They have sedulously kept religion from contact with science. So long as they could deny the conclusions of science they denied them, realising the damaging effect that these conclusions must have upon current creeds. When the conclusions were no longer deniable, Religion drew herself up, and declared that they were nothing to her; that they failed to touch her position; that they belonged to a different mental plane, and so failed to intersect or touch religious questions. This was the defensive attitude of Religion, which did not recognise, or perhaps was unable to utilise, the military maxim that the strongest mode of defence is an attack; but it was not the attitude of Science. Science boasted that its conclusions were, on the one hand, irrefragable, and on the other were destructive of religious dogma; and that the retention of current beliefs was no longer possible in the face of a universe whose sole content was matter infused with energy. Thus Science trailed its coat before Religion. But Religion was too astute to be drawn into treading upon it. She coldly requested Science to mind her own affairs, and appeared to be wilfully shutting her eyes to the irreparable breaches in her defence, and awaiting in stupid ignorance her inevitable extinction. Such was the position a few years ago;—Science shaking her fists and shouting "Come on," and Religion discreetly declining the challenge. She looked askance at her gigantic antagonist, the staff of whose spear was like a weaver's beam, declined the battle, and looked about anxiously for a champion; and a champion she has found.

Professor Ward has picked up the glove which has lain so long neglected. He has not only fought Science upon her own ground, but has carried the war into the very camp of the enemy; and he has fought fairly and squarely in a way to which it must be admitted Science is very little accustomed at the hands of her theological antagonists. So far from ignoring or misunderstanding or mis-stating the position of Science, he begins, as John Stuart Mill used to begin a controversy, by stating the position of his antagonist with an accuracy, force, and a lucidity which that antagonist may well envy; and, having stated it, he tears it into rags. One by one the concepts, the methods, the results of Science are examined; one by one the emptiness and inadequacy of each, as an explanation of the universe, is demonstrated

with unsparing and inescapable logic. Abstract dynamics fails to prove the indestructibility or increatability of matter or force. It merely reduces them to mass-acceleration. Mechanics, whether molar or molecular, is shown to be founded on fiction, and to result in universal negation. "It begins with real bodies in empty space, and ends with ideal motions in an imperceptible plenum. It begins with the dynamics of ordinary masses, and ends with a medium that needs no dynamics, or has dynamics of its own." Energetics and the conservation of energy, like matter and force, are reduced to an equation; evolution to an empty and doubly meaningless formula. None of them gives us any inkling of the relation of cause and effect.

Naturalism, the antagonist that he sets himself to combat, is said by Professor Ward to consist of the union of three fundamental theories —(1) Mechanism, (2) Evolution, and (3) Psycho-physical parallelism.

The world as a mechanism he shows to be inconceivable, or at any rate up to the present unconceived. The ultimate result of the investigation of the universe from the mechanical point of view has resulted, up to now, in the abstraction from matter of every quality but mass; and mass is a purely relative term—it is known only by comparison of masses. Atoms become mass-points, which again become modes of motion in an ether, from which positive qualities are one by one abstracted, until the residue is indistinguishable from space. Force becomes energy; energy undergoes a parallel process of refining and abstracting until nothing is left but the empty equation—*causa æquat effectum*. Mind is merely epiphenomenal upon physical changes; but physical changes, as we call them, are but the symbols of what we can know only as mental states. So that nothing is left in the universe but symbols.

Professor Ward's criticism of Mr. Spencer's theory of evolution is extremely severe, and we are bound to admit—and admit with reluctance —that it is upon the whole a valid criticism. Dr. Ward dissects Mr. Spencer's several positions with merciless severity, and pours upon them a hail of invective and ridicule. Of this we make no complaint. He never misrepresents Mr. Spencer's position; and in controversy Mr. Spencer is well able to take care of himself. But this portion of the book, and this alone, is disfigured by the very unpleasant tone that the author adopts towards Mr. Spencer. It is possible in this year of grace to criticise a doctrine without falling foul of the author of it; and this Professor Ward succeeds in doing with the many other doctrines that he subjects to such searching criticism. But in the case of Mr. Spencer he seems to be prompted by personal animosity. Not content with criticising, he continually jeers at him. He is "poor Mr. Spencer." He is "our oracle." He is sneered at as an eclectic, as if it were a demerit to avail one's self of the work of one's predecessors. The Darwinian hypothesis "came too late to be satisfactorily incorporated in his system; still Mr. Spencer was not slow to turn it to account as far as he could." There is no hint that Mr. Spencer had in several respects anticipated Darwin, but there is the innuendo that he dealt with Darwin's work in a questionable manner. Professor Ward's jeer at Mr. Spencer for beginning certain important words with capital letters is a perilously near approach to ribaldry, and certainly damages our respect for the

critic more than our respect for the criticised. It is unaccountable that Professor Ward should take this ground, considering that he himself is by no means sparing of capitals upon occasion. He quotes Mr. Spencer as speaking of the Unknown Cause, and adds "[capitals again]," —but he himself speaks of the Supreme Intelligence as the Prime Mover and Efficient Cause, in capitals just as big. If it is innocent and laudable to put the Efficient Cause into capitals, it would not seem to any one but Professor Ward heinous to put the Unknown Cause into capitals. It is a small matter—so small that it would have shown a better sense of proportion if Professor Ward had abstained from alluding to it; but as he did allude to it, we are bound to point out that it is a blemish upon an otherwise admirable work. Mr. Herbert Spencer is an old man. His life's work is done. He has dedicated his life with singular purity of purpose to the elaboration of his great System of Philosophy [capitals again, Dr. Ward !]. In the course of his long career he has been engaged in many controversies, has often been assailed with acrimony, reviled and misrepresented; he has invariably treated his opponents with courtesy and respect. He has never hit below the belt. Whatever he has published is a fair mark for criticism, and he is the last man to complain of criticism, however searching and severe, or to claim consideration on the score of age, of ill-health, or of long service in the field of philosophy; but there are amenities which it is customary to observe in public controversy, and in our opinion the limits of legitimate criticism have been exceeded by Dr. Ward in his treatment of Mr. Spencer.

Evolution as an unintelligent process, working blindly and inevitably and fortuitously upon inert matter, is examined and rejected by Dr. Ward. He examines the principles of the Persistence of Force, the Instability of the Homogeneous, the Multiplication of Effects, Segregation and Integration, and rends them into flinders; and, needlessly objurgatory as his criticism is, we are bound to admit that it is terribly effective. The chief stress of his objection to the theory of evolution is laid, however, upon the two great hiatuses of Mr. Spencer's doctrine—the gap between the physical and the biological, and the gap between life and mind. Dr. Ward scarcely takes into sufficient account the avowed end of Mr. Spencer's labours in a theory of Society and of Conduct (he must pardon the capitals), an end to which the First Principles, the Psychology, and the Biology were avowedly but preliminaries. He plays for all it is worth Mr. Spencer's admission that two volumes of his System—those on Inorganic Evolution—are missing. And he is no doubt justified, from a dialectic point of view, in assuming, with regard to the arguments that they were to have contained, that *de non apparentibus et de non existentibus eadem est ratio.* He might easily have made his point with less appearance of ill-nature, and without suggesting that the volumes were omitted, not because Mr. Spencer's task was already too great to allow of his dealing with the subject, but because the subject was too difficult for him to deal with. It must be admitted, however, that, whatever the reason, Mr. Spencer has never bridged the gaps, and they remain, like the caverns in Xanadu, measureless to man. It has never been shown how the physical could pass into the vital without the introduction—the addition—of some principle which is quite outside of,

and apart from, motion, mass-points, and mass-acceleration. The origin of life, like the origin of matter, remains a mystery; and the transition from life to mind is as mysterious as is the transition from mass-acceleration to life. Up to now these hiatuses remain unbridged; and it must be admitted that the bridges that Mr. Spencer claims to have found are not sufficiently substantial to bear the weight of an hypothesis.

It is a most remarkable fact that it is the dualists, it is those who postulate an unfathomable and impassable abyss between matter and motion on the one hand, and mind on the other, as co-existences,—it is these very thinkers who so readily infer a continuous process by which life and mind come into being by evolution out of the mere operation of matter in motion; and it is monists like Dr. Ward, for whom the material universe is a supreme intelligence, for whom matter and motion on the one hand, and mind on the other, as co-existences, are identified,—it is they who find an unfathomable and impassable abyss separating the succession of the one to the other. If therefore, as Dr. Ward asserts, the failure of evolution from the material to the biological, and from the biological to the psychical, is the destruction of dualism, equally is monism destructive of his position, that this evolution is impossible.

Dr. Ward then proceeds to examine the third principle of naturalism —that of psycho-physical parallelism, or the duality of mind and body —the doctrine of conscious automatism. "This replaces in the creed of modern naturalism the coarsely materialistic doctrine of a generation ago; which . . . the agnostics of our day repudiate. Disclaiming any knowledge of substance, either mental or material, disclaiming, too, any knowledge of efficient causes, they hold this doctrine of parallelism to be simply a scientific inference from facts, and not in any sense a speculative hypothesis. "I shall try to show," says Professor Ward, "that, on the contrary, it is really at variance with facts, and rests upon a speculative basis of the most unstable kind, viz., the Cartesian dualism, the doctrine, *i. e.* of the complete disparateness of matter and mind." First he shows that *parallelism* cannot properly be predicated of the connection; and here we will quote a passage which illustrates Dr. Ward's power of exposition. "According to those assumptions, brain processes, in common with all vital processes, if they could be completely and perfectly explained, would be described not as physiological, nor even as physical processes; but simply as the mechanically connected motions of inert mass-elements. So regarded, the organic changes in brain and nerve become amenable, in principle if not in fact, to that absolute determination and fixity that characterise the ideal operations of exact mechanics. They become distinguishable but inseparable parts of an unbroken and unbreakable mechanism, every element of which is rigorously linked with every other; the whole working in perfect unison, without the possibility of deviation or individual initiative; a world that knows nothing of spontaniety, of quality, of worth, or of purpose; a world in which there is only uniformity of space and time, indestructibility of mass, and persistence of energy. There must be nothing in that world which a mathematician with sufficient data and adequate powers of calculation could not unlock;

its state at any one instant, expressible in a single vast equation, must be equally the key to all its past and all its future. Such a conception seems obviously to exclude all interference from 'without as well as from within.'" Again, "the problem as it presents itself to a thinker setting out from the side of matter and law, is to bring the facts of mind somehow within range. The supposed diversity and disparity of the two is the crux; hence the dualism. The assumed impossibility of any interference with the physical scheme, except by miracle, leads next to the assertion of complete causal independence, and then the well-ascertained facts of psycho-physics seem to point to a parallelism. . . . But the conjunction of independence and parallelism at once confronts us as a formidable position. The ordinary canons of method allow of independence and *casual* coincidence; but independence and *invariable* coincidence seem contrary to all reason." Contrary to all experience they certainly are. Professor Ward thus points out that there is an unquestionable communication between the physical and the psychical in one direction, for even the sternest adherent of dualism admits that sensations are caused by physical changes. But how caused, in any sense that we attach to the word cause, if there is no absorption of energy in the process? And if we admit this inter-communication between the physical and the psychical in the one direction on the occasion of sensation, how can we consistently deny the inter-communication in the other direction on the occasion of volition? These are not Dr. Ward's words, but they fairly represent a portion of his very cogent argument.

Having demolished dualism, and we have given only a sample of the arguments which he employs for this purpose, he begins his reconstruction. For the duality of mind and matter in one body, he substitutes the dualism of subject and object in one experience, and proceeds to examine the universe from this new point of view. In experience he finds the essential factor to be the activity of the subject; and in this activity he finds the source of our concept of nature as a system of unity and law. In the activity of the subject is the root of our concepts of unity, causality, and regularity. In the commerce between subject and object these concepts are transferred from subject to object, from man to nature. Since man is one, he finds nature also to be one. Since in his own activity he finds his experience of causality, he finds causality in nature also. Since the commerce between subject and object in his experience is regulated by law, so he finds law in nature. Undoubtedly there is regularity in us. Our thoughts conform to law. But our thoughts also conform to nature, which is the object of experience, and hence we are obliged to think that nature conforms to law. This we take to be the gist of Professor Ward's argument, and we are bound to say that, as might be expected, his reconstruction is far less convincing than his criticism. There is regularity in us, and yet nature conforms to our thoughts; nature must therefore be regular, that is to say, teleological. "This non-Ego, we say, is orderly, and so intelligible. Either, then, it is itself intelligent, or there is intelligence behind it. Again, I interact with it or through it; either, then, it is itself causally efficient, or there is a causal agent behind it." This argument looks dangerously like the injunction that

who drives fat oxen should himself be fat. Why should it be assumed that nothing is intelligible save what is itself intelligent or has intelligence behind it? Why that nothing is intelligible but what is orderly? What is meant by orderly? Conforming to rule. What rule? Our rule, our understanding, our mode of thinking, which has been *moulded by experience*—that is to say, has been shaped by this very non-Ego. Would it not be wonderful, then, if they did not conform? Dr. Ward would probably reply that if all outside of us had been chance, we should have had no notion of law. But, in the first place, civilised men know no such thing as chance, and cannot imagine a universe of chance; and for aught we can see, if we were born in such a universe, our modes of thinking would become so moulded to it that to us it would not be chance, but law. Again, he seems to assimilate our intercourse with nature with our intercourse with each other, and to argue that, since we understand each other and find each other intelligent, and since we understand the cosmos, that the cosmos must also be intelligent; but here we seem to be using the word "understand" in two totally different senses.

Finally, Dr. Ward quotes Mr. Spencer on the Power that exists behind phenomena, and strives hard, and we think quite unsuccessfully, to discriminate between this Power of Mr. Spencer's and his own First Cause. The First Cause of a Cosmos, to be an adequate cause and deserve the name, must, says Dr. Ward, be a Supreme Intelligence [capitals again!]. Rather, we should have thought it must be a Supreme Volition. It is not by intelligence that we *do*. While we identify thinking with activity, we identify volition, not intelligence, with causation. When Mr. Spencer speaks of the Power behind phenomena, which we do not know in the strict sense of knowing—a phrase that Professor Ward boggles at—it is obvious to the impartial reader of both that he speaks of the same thing as Dr. Ward's Mind that is outside Nature. Dr. Ward, instead of attempting to draw a distinction where there is no discernible difference, should claim that this Power is the Unknown God that Mr. Spencer ignorantly worships. God is outside nature, says Dr. Ward, and that is different from Mr. Spencer's Power which is only behind, not outside phenomena. But elsewhere Dr. Ward *identifies* God with nature. "If we allow the conception of a Supreme Mind and First Cause to be valid at all, we shall not have God *and* interminable mechanism as his medium and instrument; really, fundamentally, ultimately, we shall have God only, and no mechanism." This identity of God and mechanism is precisely on a par with the identity of Spencer's "Power manifested throughout the universe, distinguished as material" with "the same Power which in ourselves wells up under the form of consciousness." Dr. Ward is at great pains to discriminate between his First Cause and Mr. Spencer's Power, but as it seems to us entirely without success; and this identity of result should lead him to abandon his petulant reference to Mr. Spencer's "flimsy agnosticism," and to welcome him as an ally instead of scoffing at him with flouts and jeers and jibes. They are really at one in their conclusion; *pax illiscum*.

This sublimation of cause and substance, this highest category, this most comprehensive universal, this supreme essence, if we cannot

know it in the strict sense of knowing, we can in some sort understand; we cannot but acknowledge. Here, we feel, is not so much the victory of Spiritualism, though we shall not grudge to its champion the satisfaction of a formal surrender, if he insists upon it, as the reconciliation of Materialism and Spiritualism; and it does not detract in the least from Dr. Ward's immense services to philosophy that Mr. Spencer had already suggested the union. In the house of philosophy there are many mansions, and there is room there for Dr. Ward and Mr. Spencer to dwell together in unity, peace, and concord. Thus the lion of Spiritualism lies down at last with the lamb of Materialism; but the meeker animal may be excused if at first he is not altogether free from nervousness—if he cannot eye his redoubtable antagonist without an occasional qualm. When Dr. Ward reaches the concept of this sublimated essence, which is the Supreme Mind and First Cause, which is outside nature, and yet which is identical with the mechanism of the universe, we are at a loss to know whether we are confronted with Theism or with Pantheism, and in this we recognise the close affinity of Dr. Ward, if not to Spinoza, at any rate to Erigena, and indeed to Dionysius the Areopagite. For those who approach the matter from the naturalistic side the distinction is not important, but it is evidently important to those who, like Dr. Ward, come from the other direction. It is, we suppose, with the object of making his position in this respect clear that Dr. Ward has recourse to the personal pronoun. We must confess that when Dr. Ward applies this to the Supreme Mind, which is also the material universe, we are aghast, and not a little scandalised. The unavoidable implication of personality, and even of sex, is somewhat shocking. We were soaring in the empyrean of Pure Cause, of Absolute Substance, of Real Existence, and suddenly we are soused in anthropomorphism. Such a *débacle*, such an anti-climax to so profound an argument, to so great a work, is disappointing.

Professor Ward's style is, if the expression may be allowed, weighty without being ponderous. He is not always clear; but in dealing with subjects of such very high degree of abstractness it is very difficult to be always clear. He always has a meaning, however, if we take the trouble to puzzle it out, and the result is always worth the labour. Occasionally we meet with obscurities which might have been obviated by greater care in punctuation; occasionally we meet with very uncouth expressions, such as "somethingness," "shadowiest of 'its';" and now and then with obscurities arising from sheer carelessness. Thus on page 258 we read: "Subjects . . . are facts of experience prior to and independent of it. It must come to terms with these when challenged. We say then: Either it is itself intelligent or there is intelligence beyond it." Here the first "it" refers to experience, the second to science, and the third and fourth to nature. The style is nowhere such that the meaning jumps up and strikes you, but it is nowhere such that it cannot be found with a little trouble; and in spite of the instances given, it is singularly free from ambiguities. The general verdict must be that it is a great book, worthily written.

CHARLES MERCIER.

Mental Affections: an Introduction to the Study of Insanity. By JOHN MACPHERSON, M.D., F.R.C.P.E. London, Macmillan and Co., 1899, royal 8vo, pp. 380. Price 12*s.* net.

Dr. Macpherson has done a real service to those engaged in the study of insanity by publishing his lectures to students at the Royal Colleges' School of Medicine in Edinburgh. Although these lectures have been extended and rearranged, the author does not claim that they are exhaustive in scope or complete in detail; yet we find that they are admirably adapted for the purposes of that formal instruction, which must necessarily be supplemented by the clinical teaching.

We rejoice to observe that Dr. Macpherson set before his students a coherent account of psychiatry founded upon the scientific facts of anatomy and physiology. His is not a facile primer of the obvious, but a masterly digest of our most advanced knowledge of the nervous system. Time was when that knowledge remained restricted and barren; happily there is now at the service of the medical profession a vast accumulation of observations made by investigators of every kind. Dr. Macpherson has selected and arranged the scattered literature of the subject from special papers and general works which are embarrassing to deal with, owing to the rapidity of the production, and minutiæ of real importance. We owe him a debt of gratitude for the labours thus undertaken, and especially for the production of a book which is eminently characterised by a straightforward and fluent method. It is not given to every one to determine the best and most trustworthy work, nor to render crabbed scientific memoirs into readable English; and it does not require any great critical acumen to recognise the mastery which Dr. Macpherson has attained over the important subject to which he has devoted his life. Whatever his difficulties may have been in producing his book, we find no trace of them in perusing it; and that is the highest praise concerning the manner of presentment.

No doubt these lectures require careful and repeated perusal for the assimilation of facts and opinions regarding our intricate specialised pursuit, and there are points open to debate in various directions. Psychiatry, like general medicine, is in a fluid state, and one can only hope to mark the epoch subject to the limitations of present-day knowledge. No books evanesce so quickly as medical works; but no physician who has the honour of his calling at heart can afford to neglect the very latest pronouncements of science. It is on this ground that we urge that Dr. Macpherson's lectures should be widely read and carefully studied.

Consequent upon these general observations there is little need for an extended consideration of the work in detail. Part I is devoted to the evolution of insanity, with special reference to heredity and determining causes. These subjects are treated in an excellent manner, insanity being correlated with other diathesic conditions and placed on the sure foundation of physical disease—*i. e.* "one of the many manifestations of the neuropathic constitution;" and, further, that it is "a degeneration which extends from mere disorders of metabolism up to the most profound nervous and physical abnormalities and the ex-

tinction of the race." We assume that Dr. Macpherson would not claim these as original observations; but how necessary it is that such conclusions should be formulated upon a full consideration of the underlying facts is apparent from the foolish remarks of a medical journalist, who lately expressed the fear that hysterical men and women would be the most numerous class of out-patients on the appointment of consulting psychiatrists to our general hospitals; as if morbid psychology were exclusive of hysteria in all its manifestations. We would fain hope that, important as Dr. Macpherson's book is to us, it will reach those who should be prevented from such absurd teaching.

Part II gives an account of the minute anatomy of the cerebral cortex, and deals with the doctrine of the neuron. The later work of Apáthy is referred to with approval, and Dr. Macpherson concludes that the present neuron theory must be considerably modified. It is to be remarked, however, that Apáthy's researches have been exclusively devoted to invertebrates, and we must still await his control observations as to nerve-cells of a higher type. The rest of this section is occupied with an exposition of modern psychology and an excellent discussion of "unconscious mind." Following upon these comes the pathological part of the book, which relates to physical and mental stigmata. Dr. Macpherson's wide reading has not prevented him from presenting his own definite yet moderate opinions.

Part III deals with clinical symptomatology, the various insanities known as mania, melancholia, paranoia, confusional, degenerate, etc. As might be expected, Dr. Macpherson has much to say in reference to toxic influences, including general paralysis under this causation. Now and then he surprises us with a lapse into nomenclature which should be abandoned, such as *idiopathic* mental affections, or *moral* causes. We fully recognise the difficulty of classifying the insanities at the present stage of our knowledge, or of discarding terms which are equivocal in significance. A discussion of these points would lead us far beyond the limits of a mere review, but we may indicate a doubt if it be desirable to give "Insanity caused by Brain Disease" as the heading of a chapter, while the whole work goes to prove that brain disease is the common factor throughout. Not that the author can be regarded as bound by traditions, for he declares that the symptoms of "phthisical insanity can be equally well accounted for by the neurasthenia which arises from malnutrition and physical weakness," and deprecates the formation of a variety in classification for which there is "neither necessity nor clear foundation." We congratulate Dr. Macpherson on his having been so open-minded in forming opinions, and in advocating these opinions, with moderation when they are doubtful, with lucidity when they are definite.

Recherches cliniques et thérapeutiques sur l'Epilepsie, l'Hystérie, et l'Idiotie. Par BOURNEVILLE, avec la collaboration de MM. Bellin, Boyce, Chapotin, Dardel, Katz, Noir (J). Paul, Boucons, et Poulard. Vol. xx. (*Clinical and Therapeutical Researches on Epilepsy, Hysteria, and Idiocy*, by BOURNEVILLE, etc.). Paris: aux Bureaux

du *Progrès Médical*, and Felix Alcan. Large 8vo, pp. 291; 13 plates and 73 illustrations in text. Price 8 fr.

This annual volume differs a little from its predecessors in giving a fuller account, with numerous illustrations, of the educational methods pursued in the children's department of the Bicêtre. The appliances used to meet and counteract structural and functional defects are described in some detail, and even the lavatory lesson is depicted from an actual photograph! In this section of the work many practical hints may be gleaned by those engaged in the care and instruction of mentally defective children, whether of the more pronounced or of the slighter type. We may mention that not only gymnastics are taught to the children of the Bicêtre, but the older boys have also fencing lessons under a military instructor. Full-page reproductions of photographs give a very graphic idea of some of the forms of physical instruction, including the latter.

That the pathological side of the work is not neglected is shown by a tabular statement that the museum at present contains 400 specimens of brains of idiots and of epileptics, 560 busts and casts, 58 entire skeletons, 210 skulls, and 290 skull-caps. Having recently visited it, we are able to testify to the admirable way in which the preparations are kept, and to the facilities which an excellent catalogue offers for their due appreciation.

Passing to statistics, we find that on the 1st of January, 1899, there were in the Bicêtre 462 children ("62 *too many*," remarks Dr. Bourneville in a note), of whom 417 were idiots, imbeciles, and insane epileptics, and 45 were non-insane epileptics. Eighty-three admissions, 28 deaths, and 51 discharges occurred during the year. The number of deaths is the highest on record, pulmonary affections seeming to be the predominant cause, tubercle figuring in about one third of the cases. At the Fondation Vallée, which receives girl patients (the Bicêtre being reserved for males), there were on the 1st January, 1899, 140 idiots or imbeciles, 2 hysterics, and 47 epileptics, making a total of 189, a number increased during the year by 10; 19 deaths occurred during the year (showing a higher death rate than at the Bicêtre), 6 at least being due to tubercular disease.

In both establishments industrial training is a prominent feature. At the Bicêtre wood-work, tailoring, shoemaking, basket-work, mattress-making, chair-caning, brush-making, printing, locksmith-work, and gardening are practised, and it is stated that the patients' work pays for the whole of the workshop expenses, including a rent for workshops, together with a sum of 1560 francs applied for recreation purposes, and a balance of 2567 francs. The girls at the Fondation Vallée are employed in domestic work, and are taught sewing and ironing.

The third section of the report is devoted to the advocacy of special classes to be established for defective children attending ordinary day schools in Paris. English experience has been referred to in previous years, and Dr. Bourneville now fortifies his case by information which he has procured from Germany and from Belgium. Though a favourable opinion as to the establishment of special classes was given by the Commission of Supervision of the Asylums of the Department of

the Seine so long ago as 1896, the matter seems still to remain in abeyance.

The second part of the book is devoted to clinical observations, therapeutics, and pathological anatomy. Lengthened trials seem to have been made of *eosinate of sodium* as a remedy for epilepsy, but with no encouraging results; *Sedum acre* was also disappointing. A large number of cases are described in full clinical detail; and the clinical and social history of an epileptic who became the father of eight children (three at least of whom present marked neurotic symptoms) suggests some judicious reflections as to the marriage of epileptics. Ten full-sized plates of brains of idiots and epileptics, reproduced from remarkably clear photographs, form a valuable appendix to the volume, which, with its predecessors, ought to form a portion of every asylum library.

Part III.—Epitome.

Progress of Psychiatry in 1900.

AMERICA.

By Dr. H. M. BANNISTER.

WITH a territory to cover which, if Canada be included, is larger than the whole of Europe, a comprehensive review of progress in American psychiatry is not very practicable. The best one can do is to notice a few points of more or less interest, and briefly attempt generalities. Nearly every one of the forty-five states of the Union has its state hospital or asylum, and I think it can safely be said that nearly everywhere there are honest efforts to keep up to the latest and best acquisitions of medical science in the treatment and care of the insane. Of course, all attempts are not equally successful, and there are public and private institutions that are by no means what they ought to be through the ignorance and incapacity of those in charge. The great curse of American asylums is the political spoils system, which necessitates, wherever it is in force, the more or less complete changing of asylum officials with every change in the political control of the State. There is nothing new in this fact, but if its publication will aid in mending matters, it cannot be too well known. Generally speaking, it is true that even political appointees are able men, and respectable from a professional point of view, and we seldom have under the system any greater scandals than are liable to occur under better systems, but it does not insure the services of experienced alienists, or encourage the best work. One thing can be said, however, that each year limits this evil, and I have to report a better tenure of office, under recently enacted laws, in at least one more State, and pledges of a better system, from both of the great parties, in at least one other. I only

write what is certainly known to me, but it can safely be assumed that this is not all the progress in this direction during the past year.

The meeting of the American Medico-Psychological Association last May was held in a southern city, and the annual address, by Dr. Allison Hodges, was tempered by the locality. The speaker took a most discouraging view of the future of the American negro under the conditions of freedom, and while his facts, so far as stated from personal knowledge, are probably undeniable, his deduction—that the only future of the race is political disfranchisement and general subordination—rather jars one, to use a popular slang of the day. Undoubtedly, the South has a difficult problem before it, but whether it can best meet it with pessimistic preconception and low ideal is a question to be considered. The southern negro is of an inferior type, but anthropological students of degeneracy, like Talbot, have found proofs of race development to a very marked degree in the coloured population of the northern cities. The mental, moral, and physical degeneracy of the southern black may well be in part the result of environment, and not altogether an inevitable besetment of the race.

Another paper of general interest read at the meeting was Dr. Wise's statement on the New York State Laboratory controversy. The work done by Dr. Van Gieson and his associates was admittedly of the highest value, and was fully appreciated not only by physicians, but also by biologists, many of whom signed a protest against what they feared was a step to its abolition. Dr. Wise's article shows the position of the State Commission in Lunacy with regard to it; it was felt that it was not near enough to the working alienist, and that it did not sufficiently meet the needs which called it into existence, or carry out the idea of those who founded it. What will be the final outcome cannot, as yet, be told, but it is probable that the changes suggested by Dr. Wise and others will be carried out.

The Michigan State Laboratory, under Dr. Klingman, appears to be doing good work. A statement of its methods was given in the July issue of the *Journal of Insanity*. The latest production is the publication of an interesting and very suggestive research, in which Dr. Klingman, following up a line suggested some years ago by Carl V. Naegeli, finds that certain lower organisms, algæ and protozoa, furnish a reliable and very delicate test for the toxicity of the blood, not only in infectious disorders, but also in the so-called functional nervous affections, and the simple insanities. This appears to open up a new line of investigation of auto-toxæmias, and suggests very many possibilities of advancing our knowledge in this direction in the future. In this connection, I may refer to the monographic article on 'Exhaustive Paralysis in Epilepsy,' by Dr. L. Pierce Clark, and the other papers published in the last issue of the *Archives of Neurology and Psychopathology*, the publication of the New York Pathological Institution. If this ceases to appear, it will be a misfortune, whatever may be the outcome of the dispute with regard to the future course of the Institute.

Dr. Berkeley's text-book on mental diseases is the one extensive psychiatrical work of the year. It is hardly necessary to say here that it is a scientific and fully up-to-date production, and one that wil receive the favour of the profession generally, as well as of specialists.

While there have not been as many suits for damages, and verdicts against physicians, for certifying insanity, in America as in England, still the possibility of such proceedings is an unpleasant fact in many parts of the country, where jury methods of commitment do not exist. The Supreme Court of Massachusetts, however, has recently decided that a physician is not liable for erroneously certifying to the insanity of an individual, even though the examination was an imperfect one, provided there is no proof of malice or bad faith. The testimony of the physician, it holds, is not the proximate cause of the commitment, since a judge must, under the Statutes, determine that; and the physician must, moreover, in accordance with public policy, be like other witnesses considered privileged and protected against liability, so long as he acts in good faith, and without malice. The decision was by a majority of the court in full bench, and it appears to protect Massachusetts physicians from vindictive prosecution, as well as to afford a valuable precedent elsewhere.

BELGIUM.

By Dr. Jules Morel.

All the alienist physicians in Belgium, anxious for the improvement of our asylums for the insane, are calling for a revision of the lunacy laws, such as will bring them into harmony with the actual state of psychiatry, and the condition of the lunatic asylums of the majority of civilised countries throughout the whole world.

Dr. Peeters, in his inaugural presidential address, has authoritatively laid down a number of points which call for the attention of the law-giver. He refers to the last official report of the Minister of Justice, published in 1900, in which are mentioned a number of faults which require a remedy. He insists on one vital point, the necessity for creating a special diploma in mental medicine, to obtain which would be an indispensable condition for appointment to the medical staff of an asylum.

He emphatically states that the terms of Article 17 of the General Regulations, setting forth that at least one physician shall be attached to each asylum, and that the physician shall have the direction of the management of the patients from the medical, the hygienic, and the disciplinary points of view, is not carried out. He would wish to see a provision added to this article whereby asylums for paying patients containing 150 persons and asylums for the poor containing 300 should have a special physician, who would be forbidden to take private practice. He rightly considers that the revenues of the establishments are sufficient to afford proper remuneration to the physician. He adds, without hesitation, that the observance of the law and the interests of the insane are worth a few banknotes. This is, indeed, the only way to promote the study of science in asylums. At present, in Belgium there is no inviting prospect for a physician who entertains the desire of pursuing the work of mental medicine.

A second point, which is unfortunately in conformity with fact, is that the close asylums retain a number of patients who should properly be located in the colonies, where they would derive great benefit from the free life, while confinement is a torture to them. Now, our lunatic asylums are always enlarging, instead of the number of insane colonies increasing.

The third and last point of Peeters' excellent address deals with the need of introducing into asylums professional instruction for the attendants; but, in spite of all the attempts made during the last ten years to attain this object, it has only met with absolute indifference.

In consequence of unfavourable reports made on the mode in which imbeciles and idiots are treated in most of the Belgium asylums, a very important discussion took place at the Society of Mental Medicine. These criticisms, on the one hand, hold good for the last twenty years; on the other, it would appear that they are soon about to lose their application. The asylums for idiot children have just been supplied with the equipment required for Frœbel's method. The methods of education adopted by Dr. Bourneville have been discussed, but it would have been more to the point to have glanced, for purposes of comparison, at the procedure in vogue in England, in Germany, and in the Scandinavian countries.

However that may be, it is important to record the great progress which has been made by Dr. Demorr, Professor in the University of Brussels, and Dr. Sey, of Antwerp, who are at the head of the generous movement for the education of backward children. The Belgian idiot asylums refused heretofore to introduce modern progress; they are now compelled to do so.

In Dr. Demorr's opinion,—and his competence to judge is indisputable,—only idiots who are dirty and idiots who are uneducable should be received into asylums.

At the same time that Dr. Peeters prepared his inaugural address, Dr. Jules Morel, in accordance with a request from the Bureau of the Section of Psychiatry at the International Congress of Medicine in Paris, brought out a work *On the Treatment of the Acute Forms of Insanity by Rest in Bed, and the Modifications which this Method would involve in the Organisation of Establishments devoted to the Insane.* Some of the conclusions at which he has arrived go to confirm the claims put forward by Dr. Peeters for the modernisation of the Belgian asylums. They may be thus summarised:

I.—Every patient admitted to an asylum should be placed in an observation ward until he has been thoroughly examined physically and mentally. In order that this examination may be as complete as possible, the physician must be in a position to utilise every means of diagnosis which the very latest discoveries of science place at our disposal.

II.—These classes should be confined to bed:

1. All patients suffering from acute psychoses, or from chronic psychoses when showing intercurrent excitement or depression.
2. All patients suffering from disorders of general nutrition.
3. All patients who are not able to conduct themselves in accord-

ance with the rules of ordinary life: the dirty, those who refuse their food, or have a tendency to suicide, destructiveness, etc.

4. All patients affected with somatic ailments of sufficient gravity.

III.—To effectually obtain the object of treatment in bed it is necessary:

1. That the asylum should possess a competent medical staff, sufficient for the needs of the service.

2. That the various physicians attached to the asylum should live therein, and should have each his own special task in the observation and treatment of the patients.

3. That no means of restraint should be used except in very rare and exceptional cases.

4. That the medical staff should undertake the professional instruction of the attendants, and that all members of the latter body who do not show satisfactory progress should be dismissed.

5. That the attendants should be intelligent, of high character, sufficiently paid, and entitled to a pension after a certain number of years' service.

6. That the buildings and arrangements of the institution should meet all requirements for the comfort of patients and staff.

Because of the superiority of the majority of foreign asylums over those of Belgium, whether as to buildings, manner of administration, or medical staff, Dr. Morel has formed the opinion that indispensable reforms in Belgium must be urgently demanded.

FRANCE.

By Dr. RENÉ SEMELAIGNE.

Family Mental Diseases.—According to Dr. Trenel, of Rouen, family mental diseases have not been sufficiently described, saving insanity in twins, and hereditary tendency to suicide in the same family. He has observed that cases of systematised insanity, dementia, periodic insanity, acute mania, general paralysis, and especially juvenile general paralysis, might assume the "family" form.

He thinks that a classification of such types would be very interesting and useful from a practical point of view; but it is necessary to avoid a confusion between two terms which are quite different, *i. e.* hereditary and "family," and for this purpose one must exclusively keep to the cases of patients belonging to the same generation.

Dr. Arnaud, of Paris, proposes the following definition, "a disease of a similar clinical character which invades two or more members of a family belonging to the same generation." According to him (Dr. Arnaud) all the family diseases are hereditary, all the hereditary diseases are not family diseases, consequently the questions are quite distinct.

Dr. Doutrebante, of Blois, thinks that these diseases are rare, he having observed only such cases as suicide or *folie gémellaire.*

Dr. Caquet, of Paris, has published observations on the cases of three boys and two girls with religious insanity, who were admitted to the Asylum on the same day.

Dr. Briard, of Paris, knew a family in which the brothers and sisters alternately suffered recurrent mania. When well they could foresee the development of the insane periods.

According to Dr. Magnan, all the members of the same family do not present similar mental diseases, but similar disorders are frequent.

Dr. Brunet, of Paris, thinks more statistics on the question are necessary, and every asylum might give information as to this group of patients. Of twelve families that he had the opportunity of observing, idiocy in five cases was of the family type, melancholia in three; general paralysis, epilepsy, mania, secondary dementia, in one each.

According to Dr. Ferugua, the genuine family mental disease, without any change in the form, attacks several children of the same generation, being identical in mode of outset, progress, and evolution. Periodic insanity seems to be the most frequent of this group of mental disease.

The Psychoses of Puberty.—Dr. Jules Voisin, of Paris, includes under this heading all mental diseases making their appearance during the period of puberty, from twelve to twenty-two, that period being characterised by sexual maturity and physical and intellectual development. All varieties of psychoses may occur, for hebephrenia does not exist as a morbid entity, this term being reserved for cases of dementia. The mental states which appear at the beginning of puberty are not so serious as those occurring towards the end of that period. The first might be called the psychoses of puberty, and the second psychoses of adolescence. Hereditary predisposition seems to be the predominating cause, and this, with incomplete intellectual development, gives the hebephrenic stamp to the disease.

Melancholia frequently assumes the aspect of stupor, with impulsiveness, obsessions, and imperative hallucinations directed against the patient himself or the people surrounding him. Mania rarely presents mild features.

Dementia occurring early in the period (hebephrenia), described by Kahlbaum and Hecker, has two forms, the severer one presenting symptoms of stupor, dementia, catatonia, and mental confusion, (diagnosis often difficult), the milder one being a simple dementia, having to be distinguished from general paralysis and the dementia of epilepsy.

The mental confusion is of a dreamy or visionary type, and presents a great analogy to that associated with alcholism.

Visionary mania characterises all the psychoses of auto-intoxication, the nutritional disorder associated with adolescence apparently being the cause. In juvenile general paralysis ideas of grandeur do not occur, and its course is slower than in the adult form.

Degenerative and neuro-psychoses are the most common forms of alienation associated with puberty, and they generally recur in adult life.

Psychical Hallucinations.—Dr. Séglas, of Paris, classifies psychical hallucinations into two principal groups. The hallucinations of the first group (sight, hearing, taste, and smell) are phenomena intermediate between ideas and hallucinations, mental productions which are living

and precise, but do not present an external character, as do the genuine hallucinations.

He divides the second group as follows:—

1. *Hallucinations verbales motrices*, which are genuine hallucinations.

2. *Pseudo-hallucinations verbales*, in which the interior voice remains a mental representation which is living and precise, but does not succeed in becoming a genuine and external hallucination.

He thinks that the expression "psychical hallucination," designating, as it does, dissimilar phenomena, which are for the most part not true hallucinations, is misleading and should not be used.

Mania of Visionary Origin in General Paralysis.—Dr. Regis and Labanne observe that the mental state in some cases of general paralysis has a visionary origin. They both observed four patients whose delirium followed dreams, and who remained conscious of that origin. Delirium of this nature is not exactly the same as that proceeding from acute intoxication; it is less hallucinatory, less living, less intimately associated with the personality. The psychical dissociation which constitutes the basis of the disease, does not permit of a complete formation and incorporation of the outlines of the mental synthesis created in the dream.

Fragility of Bone in General Paralysis.—Dr. Labanne, of Bordeaux, has studied the spontaneous fracture of bones in general paralysis, proving that it might occur as the primary and sole manifestation of that disease.

GERMANY.

By Dr. J. Bresler.

The progress of psychiatry in Germany during the past year has been marked rather by steady advance of a permanent nature than by any unusual or startling event.

Dr. Wattenberg, of the State Asylum at Lübeck, published a short communication regarding the treatment of lunatics by isolation in side-rooms. He points out that for six years this procedure has not been necessary at his asylum—an abolition which has had a good effect on his patients, and which has not entailed an increase in the quantity of drugs used.

The system of "boarding out" of patients has extended in Saxony, where, mainly by the efforts of Dr. Alt, of Uchtspringe, two small asylums, each for 150 cases, are to be built for the temporary reception of patients who eventually are to be boarded out with families dwelling in the neighbourhood. One has already been commenced at Ferishow.

The number of "After-Care" associations has increased, one having been formed for the Rhine Province.

It is satisfactory to record the completion of the Psychiatric Klinik at Kiel, and the appointment thereto of Professor Siemerling; and also that there is now no medical centre in Germany without an institution of this character.

As regards criminality, the Government of Prussia has erected wards for the observation of insane criminals at its larger prisons—*e. g.* Köhn, Halle, Münster,—but unfortunately the criminals, when finally recognised as insane, are transferred to the usual asylum, where they are associated with the non-criminal.

The recruiting sergeant in Saxony will have for the future to search for a history of insanity before men are allowed to join the Army, the Minister for War having ordered the rejection of all recruits who have had mental disease.

The annual meeting of the Association of German Alienists was held on 20th and 21st April at Frankfort-on-Maine. The most noteworthy paper was that by Professor de juris Lenel, of Strassburg, and Dr. Kreuser, of Schussenried, on "The Prognosis of the Psychoses with regard to the § 1569 of the Code-Civil"(1) (Divorce by reason of Insanity). This was followed by an important discussion.

Another interesting paper was that of Dr. Siemerling on the "Evolution of the Doctrine of Criminal Heredity." He is very emphatic on the necessity of modifying the punishment of the endogenous recurrent criminal.

Dr. Sioli discussed the question of rural and urban insane, noting the predominance of the latter over the former. He advocates, for cities of 100,000 inhabitants, the erection of an annexe to the general hospital, consisting of two wards, for fifteen to twenty insane patients, maintaining that thereby two hundred cases can be treated per annum, granting that they do not remain in the wards for longer than two to four months each.

Dannemann showed a number of plans for asylums to accommodate thirty, forty, fifty, or one hundred patients, and discussed the construction and organisation of these establishments. Fürstner gave a report on the morbid changes in the spinal cord in general paralysis; Bonhoeffer discussed the qualities of vagrants and vagabonds; Alzheimer the pathological anatomy of chronic insanity; and O. Vagt opposed Fleschsig's doctrines.

Sander demonstrated some changes in acute insanity; while Friedländer read a paper on erythrophobia, Raecke on changes in the cerebellum and the basal ganglia in general paralysis, and Kirchhoff on the expression in melancholia.

[1] Vide *Journ. Ment. Sci.*, 1899, p. 386.

HOLLAND.

By Dr. F. M. Cowan.

It is pleasant to see that those in authority are becoming convinced that the symptoms and treatment of mental diseases should be taught at our medical schools. As it is now, three of our universities have each a chair for psychological medicine, and it seems strange that the remaining one, that of Groningen, should not have a similar chair.

The recent appointment at Utrecht was that of Prof. Th. Ziehen,

who was professor extraordinary at Jena. Prof. Ziehen is well known as the author of the anatomy of the nervous centres in *Bardeleben's Anatomical Handbook of Lectures on Physiological Psychology*, and of a text-book on *Mental Diseases*.

Now it is a fact, that diseases of the mind can no more be learnt from a book or by oral teaching than any other branch of medical knowledge, and therefore we rejoice at the appointment of clinical teachers; but the question at the same time arises, Where is the material for these teachers?

Amsterdam possesses its suburban hospital, where all recent cases are admitted and cared for until they are sent to the Meerenberg Asylum. There is no dearth of cases for clinical instruction there, and as the university and the hospitals are city institutions there is no fear of any friction between professors and hospital physicians. Nor need there be any great fear of friction at Leyden. The local authorities, aware of the necessity of having this important branch of medicine taught theoretically and practically, opened an asylum at Leyden, and in addition to this, they intend erecting a sanatorium for nervous diseases. It was very wisely thought necessary that not only insanity proper should be the subject of teaching, but that different neuroses, which cause the sufferers so much worry and distress, should be seen and studied by the medical students.

Circumstances are not so favourable at Utrecht. The asylum there is a very ancient institution, dating from the time of the Crusades. While the governors are quite willing to make great allowances for the benefit of the professor and the students, they require the medical staff of the asylum to exercise chief control, and the professor is to be a guest. Prof. Winkler resigned the chair at Utrecht because he considered a teacher without a clinic useless. Everything remains to be done for Groningen—*i. e.* a chair has to be created, and a clinic has to be opened—for Groningen has not an asylum belonging either to the town or the university. True, there is a lunatic asylum, distant about twenty minutes by rail, but this has been erected by a religious community, and the question is whether the board of governors will permit it to be used for teaching purposes.

Several alienists hoped that as the penal code of laws was to be partially revised, more enlightened views might be introduced with respect to criminal lunatics (*sit venia verbo*). It would appear that the judges seem to expect a philosophical rather than a medical answer to their queries.

Next year, the Congress on Criminal Anthropology will meet at Amsterdam. A good omen for its success is the interest taken in its proceedings by people of different schools and creeds. Modern doctrines as to the position of the criminal are very slow to spread; and it is very sad to hear people acquainted with law, and who should know better, assert that if these doctrines of Lombroso and others were accepted, we should see mankind left to the tender mercies of a set of ruffians.

A movement is being set on foot to publish all cases in which physicians are called upon by judges to give evidence regarding the mental condition of the accused. Medical opinion is pretty often asked, but it sometimes proves very difficult to convince judges that a man who

apparently speaks well, and shows no very palpable symptoms of insanity, should be an asylum inmate and not a prisoner. The prison officials, of course, consider the medical expert as a sort of modern body-snatcher, who breaks into their gaols to carry off the members of their flock. These worthies give most arbitrary evidence, stating that what is considered a symptom of insanity by medical men is only hardened vice and shamming. Observation in a prison cannot but be defective, and it is a pity, that in the modifications to be introduced in our penal laws, there should be no clause regulating this important matter. There can be no doubt that criminal anthropology must be taught at our medical schools, and should be studied by both jurists and physicians; this is the only way to obtain co-operation in these important sociological questions. That this want is keenly felt, is proved by the attendance of barristers and medical men at the lectures which are occasionally given.

ITALY.

By Dr. Guilio Cesare Ferrari.

I believe that, in beginning my annual report on the general conditions of psychiatry in Italy, it will, first of all, be useful to give an idea of the circumstances and surroundings in which we prosecute our studies, endeavouring not to be led by our admiration for those centres where the scientific movements form the motive force, into forgetfulness of those other centres, which are indeed less important as regards size, but which must often be credited with subjecting to an effective test the theories and hypotheses issuing somewhat prematurely from the larger centres.

The conditions of instruction in psychiatry vary much in various centres. Teaching presents in almost every nation a certain one-sidedness. Thus, while English and American psychiatry is by preference clinical and psychological, that of Germany has always been, and still is, by preference, histological; while the French has chiefly devoted itself to studies in psychical symptomatology, Italian psychiatry, since its resuscitation, has been absolutely eclectic. It has cultivated with the same zeal all branches of our specialty, and at the same time has thrown a brilliant light upon certain cognate subjects,—for example, upon penal science; whence has arisen a new branch intermediate between anthropology and criminology; the distinction resulting therefrom Italy may justly be proud of.

This character of eclecticism depends, however, only on a general impression, for if we look more closely into the matter, we see that (with the exception of the psychiatric institute at Reggio Emilia) the various centres follow one or other of various methods of study, according to the opportunities offered by the circumstances and surroundings of each.

The question of "environment" (circumstances and surroundings) reminds us of a fact which is very sad, but is inevitable, because it is connected with the economic development of Italy. In the great cities, psychiatry finds material for study outside asylums, and although our

best professors are appointed to the charge of the asylums and the psychiatric clinics which are to be found there, yet it is but rarely that the young assistants can profit by these, bound as they are by the need of making money and looking after their practices.

This is what happens, for example, at Turin and Genoa, and in order to show what a loss Italian scientific work suffers from this economic condition, it is only requisite to mention that in these cities instruction is given respectively by Lombroso and by Morselli.

It is evident that psychiatry, like a great many other things, can best be studied in small towns, from the example shown by Reggio Emilia, the Psychiatric Institute of which, under the direction of Tamburini, Professor of Psychiatry in the neighbouring University of Modena, is the most highly valued centre of psychiatric culture which is to be found in Italy. The teaching given here truly answers to that designation of eclecticism, which is characteristic of Italian psychiatry.

This asylum, built in 1822, and having now a population of nearly 1000 patients,(1) clinical histories of whom have been carefully preserved in the archives for several decades past, presents very abundant clinical and statistical materials. It possesses also the best collection, in numbers at least, of skulls in Italy, and of instruments of the highest interest in the history of our specialty. But its proudest boast is the great series of scientific laboratories, dedicated to the great biologist of Reggio, Lazzaro Spallanzani, which most of the Italian clinics, and, indeed, almost all the asylums in Europe have reason to envy. To these laboratories a number of young physicians in constant succession come from all parts of Italy, and sometimes even from abroad, to study in the various departments, according to their particular bent. Thus we find prosecuted here, side by side, the study of anthropology (Vassale), investigations on the thyroid (Ceni, who is chiefly engaged on the study of auto-intoxications in mental diseases, Caselli. who recently died while he was finishing a very interesting work on the function of the pituitary body), neuropathology (Pastrowich), clinical psychiatry and normal and pathological psychology (Guicciardi, Ferrari),(2) and finally, clinical statistics (Fornasari di Verte). All this work is executed under the lofty and moderating influence of Professor Tamburini, who also edits the *Rivista Sperimentale di Freniatria*, the journal which, for the last twenty-six years, has published the best scientific productions of Italy.(3)

Proceeding southwards we come to another scientific centre in the Psychiatric Institute of Florence, directed by Tanzi, Professor of Clinical Psychiatry. Lugaro is assistant at the clinic. His studies on the constitution of the nerve-cell enjoy among us a celebrity which is well deserved. They have, at least for several years past, given a direction to, and impressed a character upon all the scientific output of the Florentine clinic. On the same lines again Levi works, while Righetti is engaged on the clinical aspect of mental diseases, and Finzi works according to the psychological methods of Kräpelin, with whom he studied for several months.

The Florence Institute possesses a journal, the *Rivista Patologica Nervosa e Mentale*, which resembles the German *Centralblätter*. It has been always very full from the ætiological point of view, and it may

be charged with a certain degree of one-sidedness. Now, however, it is being modified.

Going still further south, we come to Rome, where the asylum is directed by Bonfigli, who is also Professor of Clinical Psychiatry. He is engaged on the question of backward and deficient children, to which we shall again revert. The scientific movement of our specialty is directed by Mingazzini, Professor of Neuropathology, and Pathological Anatomist to the Asylum, who is able to communicate his powerful energy to a crowd of young workers (Giannelli, Schupfer, Dionisi, etc.). They almost all pursue a severe anatomo-pathological and clinical method, and their works, always very carefully laboured, are published in the *Rivista Sperimentale di Freniatria*, or in some German journal, particularly in *Monatsschrift für Psychiatrie*.

At Rome we also find Dr. de Sanctis, whose works on general and clinical psycho-pathology have obtained for him a very distinguished name. This year he has been entirely occupied with backward children, and we shall later on have occasion to speak of his intelligent and meritorious work. His papers are published in the *Rivista Sperimentale di Freniatria*. His last publication was a volume on Dreams,(4) which was very favourably received by the critics.

The anatomical method is specially followed in Naples at the clinic directed by Professor Bianchi, who is about to publish a large treatise on Mental Diseases; and while Colucci is studying degenerations consecutive to enucleation of the eyeball, Fraguite is endeavouring to ascertain the embryological constitution of the nerve-cell; both researches of the greatest interest. Their works are published in two journals, the *Annali di Nervologia*, and the *Giornale dell' Associazione fra Medici e Naturalisti*.

There are, besides, at Naples, other physicians in private practice who give much attention to psycho-pathology.

At a point a little more remote, we find in the interprovincial asylum of Nocera Inferiore a considerable number of young physicians, who pursue clinical methods with such activity that they are able alone to keep up a journal (*Il Manicomio*) which is actually published in the asylum. We may mention (besides that of the Director, Dr. Ventre) the names of Del Greco (a very good psychologist who came from the Psychiatric Institute at Reggio), Fronda, Angiolella, Caddi, and de Cesare.

Next comes the asylum of Aversa, directed by one of the most learned men in our specialty, Caspare Virgilio, who with certain clever ideas in the domain of anthropology has even anticipated Lombroso. His assistants pursue his work, but they have brought out nothing of interest in 1900.

Work is much more close and more generalised in another asylum in the North of Italy, that of Ferrara—where for the last two years a journal has also been published, the *Bollettino del Manicomio di Ferrara*,—and which is directed by Professor Tambroni (a pupil of Reggio), and where the Director and Drs. Cappelletti, Vedroni, and Lambronzi labour with the greatest spirit, and the finest results. The clinical method is followed here.

The same tale can be told of the asylum at Brescia, directed by

Seppilli, former collaborateur with Luciani in his work on cerebral localisation, and pupil of the asylum of Reggio (a veritable nursery of alienists). Drs. Lui and Tonoli work with Seppilli according to the clinical methods.

I should also mention that the asylum at Turin is directed by Marro (who has recently published a very interesting work on Puberty). Pellizzi and Tirelli work with him, and they specially follow the anatomo-pathological method. The works of Pellizzi on Idiocy are very remarkable. They publish a journal—the *Annali di Freniatria.*

Among isolated workers in our specialty, the following deserve special mention :—Antonini, for the past year Director of the asylum at Voghera, whose name is well-known and highly valued in science. He is at present engaged at the laws of the distribution of insanity in the department of Pavia, and he is revealing the most curious and interesting laws with regard to the evolution of lunatic asylums. Obici, Assistant at the Psychiatric Clinic of Padua; Agostini, of Perugia; Pieraccini, of Macerata; Cristiani, of Lucca, etc.

It is evident, then, that psychiatry can reckon in Italy a great number of followers who are wholly devoted to this subject. This is the more remarkable, seeing that the Government has completely forgotten the requirements of alienists. It is sufficient for me to mention two facts—(1) During the last ten years it has been impossible to pass the *laws on lunatic asylums*, which every Ministry has postponed, and which are required to regulate, in a uniform manner throughout the whole of Italy, the relations between the directors and the administrators of asylums. (2) Preparations are being made for a census of Italy, which will begin in next February. Now we might expect to be able to obtain exact information as to the number of lunatics, of deaf-mutes, of cretins, and of the blind. But this cannot be obtained. Why? Probably nobody will ever know.

The only really useful thing which it has been possible to obtain from the Government has been the combination of instruction in psychiatry with instruction in neuropathology—a combination which we owe to the Minister Bacelli. This is all, and it is not much.

The question which is now more than ever under discussion is the overcrowding of asylums. It was calculated in 1874 that there were in Italy 12,000 lunatics; in 1898 they were reckoned 36,800. The various departments have expended in 1897 14,000,000 lire on the care of the insane. But this is not enough, for there are in confinement in Italy 4000 patients more than the asylums can contain.

On this account there are now being built, or it is proposed to build, a great number of asylums, so that each department may have one. But in the meantime the existing institutions must be enlarged, or other means must be adopted.

At Reggio Emilia it is contemplated to institute a "hospice" for dements, and a colony for epileptics; but in the meantime Tamburini has endeavoured to establish something analogous to the family care of the insane which exists at Gheel, in Belgium.

When a patient is chronic, quiet, and clean, and there is no member of his family to look after him, he is committed to the care of a family who live in the vicinity of the asylum, preferably the family of a former

asylum attendant. A family is allowed to keep two male or two female patients. One lira and a quarter is paid for each patient *per diem*, and the patients must be supplied with everything and kept clean. They work if they wish, but they cannot be compelled to work. This method has only been in existence for two years, but it promises very well, and in a short time we shall have at San Maurizio a village of the type of Gheel and Lierneux.

At Brescia they endeavour to meet the enormous overcrowding by the discharge of all patients as soon as improvement appears.

I am glad to conclude this report on what is being done for the insane among us with a word about the institutions for imbeciles which are arising, on the noble initiation of Professor Bonfigli, at Rome, Bologna, Florence, and Milan, and which will be soon completed; for there are certain questions which must be solved, once they are put. The honour of being the soul of this movement in Rome is due to Dr. de Sanctis, who for the last two years has devoted himself altogether to this noble task.

There has also been established an institution for imbeciles at San Giovanni, in Persiclo, near Bologna. It is directed by well-known alienists (Roncati, Tamburini, and Brugia); but the man who has most closely identified himself with it is a young physician devoted to the new experimental teaching—Dr. Pezzoli, who has established at his own expense a laboratory of experimental teaching, the only one which exists in Italy, and who applies his methods of teaching to the backward children who are sent to San Giovanni, in Persiclo, from the departments of Bologna, Modena, Reggio, Parma, etc.

This noble example of devotion to science and charity suggests to us the last word of this report. May this example be followed! and then psychiatry will not be unworthy of that new Italy which now at last is making such prodigious efforts towards its further development.

(1) For an account of the wonderful development of this institute and its present conditions see Tamburini's illustrated pamphlet—*Il Frenocomio di Reggio Emilia*, Calderini, Reggio Emilia, 1900.—(2) I have just completed a translation of *The Principles of Psychology*, by William James, which will be published by the Societa Editrice Libraria, Milan.—(3) The general index for the first twenty-five years will appear shortly.—(4) *De Sanctis*, I. Sogni, Bocca, Torina, 1900.

Epitome of Current Literature.

1. Neurology.

On the Physiological Action of the Thymus and of the Thyroid: Experimental Research [*Sull'azione fisiologica del timo e della tiroidina*]. (*Il Manicomio, fasc. i and ii*, 1899.) *Ventra and Angiolella.*

In this research, thyroid and thymus substance in tabloid form were

administered, both separately and together, to rabbits and dogs. The animals either died from the toxic effects, or were killed after a degree of tolerance for the gland substance had been established. This tolerance was evidenced by the increase in weight after the initial fall, which the first doses always produced. The pathological lesions found were nearly identical in the three groups of animals. The chief were hyperæmia of the respiratory and digestive apparatus, and frequent hæmorrhagic erosions of the stomach, leading to perforation in one case. The kidneys were generally healthy. The thyroid gland was atrophied, and the remains of the thymus showed more or less reaction from hyperæmia to a true regeneration of gland tissue. The central nervous system showed no naked-eye change. Microscopically, there were marked degenerative changes. Chromatolysis, partial or complete, was present and accompanied in some cases by disintegration more or less marked by the achromatic part. Occasionally vacuolar and yellow globular degeneration was observed. The nuclei were markedly swollen, with indistinct outline and loss of staining. They completely filled up the atrophied cell body in many cases. These alterations were chiefly noted in the frontal and parietal lobes, the occipital being always less affected. The pons and medulla were affected similarly but to a less degree. In the cord, the lesions were chiefly noted in the enlargements. The thymus-fed animals always showed more marked changes in the cords than those thyroid-fed. This was the opposite to what took place in the cortex, where the thyroid feeding produced most degeneration.

The authors conclude that the thymus produces in the organism similar effects to those produced by the thyroid, but less marked. It produces an attenuated thyroidism. From the changes in the central nervous system, they conclude that the thyroid has a special and specific action on the nerve-cells, either in directly nourishing or by neutralising some noxious substance and maintaining in them a normal chemical constitution. They point out the marked effects which result from over-production in some cases of Graves' disease.

The thymus produces similar effects, and the authors think that it probably produces this attenuated substance during the period of childhood, when a less energetic effect is required. They also point out that its selective action for the spinal cord would then also be of value. J. R. GILMOUR.

Resistance to Putrefaction of the Cerebral Cortical Cells in a Series of Animals [*Resistenza alla putrefazione delle cellule della corteccia cerebrale nella serie animale*]. (*Il Manicomio, fasc. i and ii*, 1899.) *Alessi, W.*

The author studied in a series of animals (lizards, frogs, rats, pigeons, guinea-pigs, rabbits, and dogs) the changes due to putrefaction in the cerebral cells, and especially the time of their appearance. The tissues were exposed to air for periods of from twelve to seventy-two hours before fixation. It was found that the changes were always more early and more marked the higher in the zoological scale the animal was. The higher specialisation of the cells probably entailed a greater degree of instability. J. R. GILMOUR.

Experimental Researches on the Anatomy and Physiology of the Optic Thalamus [*Experimentelle Untersuchungen über die Anatomie und Physiologie des Sehügels.*] (*Monats. f. Psychiat. u. Neur., B. vii, H.* 5, 1900.) *Probst, M.*

Dr. Probst, in this paper, gives the results of lesions of the anterior part of the thalamus. He has already given his results of lesions of the posterior part. The part of the thalamus required was destroyed by a specially constructed instrument, and in such a way that the brain cortex and the neighbouring structures were not injured with the exception of a small part of the corpus callosum. Dogs and cats were both used, and a great number were operated on to check the results. The brains were subsequently examined to see the course of the fibres and the extent of the lesion. Marchi's was the main method used, and careful serial sections were made. The median and the anterior nuclei and the neighbouring cells of the ventral and antero-lateral nuclei were destroyed, together with the bundle of Vicq d'Azyr and the stria medullaris thalami. An animal so injured immediately drew its head strongly to the injured side and also to some extent backwards. It then carried out circular movements towards the injured side for about ten minutes. These same movements were then carried out for a similar length of time towards the opposite side and then they returned to the original direction, which they maintained till they ceased. In progression, it lifted its front legs much higher than usual, as if to get over some obstacle. The neck and rump muscles of the injured side were strongly contracted, so that there was a consequent bending of the whole body. No paralysis was present. The pupils were unaffected. The animal was very restless. No spasms or signs of mental depression supervened. No loss of sensibility arose; indeed, the animal seemed slightly hyperæsthetic. These results all gradually disappeared. In other animals, different pieces of cortex cerebri were removed and the brains examined subsequently microscopically by means of Marchi's method.

The following anatomical points were made out by these different experiments. Fibres run from different cortical regions to particular regions of the thalamus, and *vice versâ* from particular regions of the thalamus to particular parts of the cortex, so that certain definite cortical regions and definite parts of the thalamus functionate together.

The anterior and mesial nuclei of the thalamus send fibres to, and receive fibres from, the anterior and posterior sigmoid gyri and the coronary gyrus.

The caudal part of the thalamus, *i.e.* the pulvinar, the external geniculate body, and the posterior part of the lateral nucleus are associated with Munk's visual sphere. The middle and anterior parts of the lateral nucleus are associated with the parietal lobe. The thalamus sends fibres also to the anterior corpora quadrigemina, to the red nucleus, and to the cells of the reticular formation. No fibres go further. The fillet sends up fibres which end in the ventral nucleus, and convey to it all manner of sensory stimuli. The thalamus also gets fibres from the superior cerebellar peduncles. The optic path is seen to end in the posterior part of the lateral nucleus, the pulvinar,

the external geniculate body, and the anterior corpora quadrigemina. It is then continued by new fibres through the lateral sagittal stratum to the cortical visual centre. The fibres of the olfactory nerve are connected to the ganglion habenulæ through the stria medullaris, and this is connected again with the cortical centre for smell. The auditory fibres are connected with the internal geniculate bodies, and from here an auditory path is continued to the cortex. Based on these anatomical relationships the possible course of impulses is then described, but the particular part played by the thalamus in its dealing with sensory impressions remains in obscurity. Double-sided lesions are then briefly dealt with, but beyond slight variations in the clinical picture they teach us nothing further. W. J. PENFOLD.

On Varicosity of the Cortical Dendrons [*Sur l' état variqueux des dendrites corticales*]. (*Arch. de Neur., April*, 1900.) *Soukhanoff.*

Perhaps the most striking characteristic of the protoplasmic processes of the nerve-cell is the presence of the gemmules. A further characteristic, which is the least marked in a healthy adult brain, is the presence of varicosities of these processes. Now between these two elements there is a rough inverse relationship: the larger the number of varicosities on any given dendron, the smaller will be the number of gemmules, and *vice versâ*. There are indeed some few cortical neurons, the dendrons of which have a markedly beaded aspect and are entirely devoid of gemmules, and it is probable that these neurons form quite a distinct class of elements in the nervous system.

The beaded appearance of the dendrons is most marked in the brains of new-born animals, in the brains of animals which have undergone degeneration in consequence of experimental interference, and in the brains of the insane.

Among new-born animals this varicose condition is seen at its best in those which at birth are unable to walk (mouse, kitten, jackdaw, etc.), while it is ill-marked in those animals which are able to walk or even run instantly after birth (guinea-pig, chick, etc.).

The author has observed marked swellings on the dendrons in the following pathological conditions:

(1) Poisoning by arsenic, alcohol, sulphonal, etc.
(2) Uræmia, cachexia strumipriva, etc.
(3) Ligation of the carotids and experimental embolism of the cerebral arteries (Monti's experiments).

En passant, we observe that the drug which Soukhanoff found to produce this moniliform appearance most rapidly was trional (one and a half to two and a half days).

The assertion is, then, that marked varicosity of the dendrons is found in the brains of ill-developed new-born animals and in brains which have undergone degeneration. From these data the author concludes that varicose or moniliform atrophy is to be looked upon as an expression of the dissolution of the nervous system, the neuron having returned to a condition similar to that of one of its stages of evolution.

Varicosity of the dendrons is, as a rule, a recoverable condition.

The lesion of the cell body is only to be regarded as grave when the varicose state involves a large number of the dendrons, and approaches closely to the cell body itself.

The paper is well written, and there are four and a half pages of bibliography. W. H. B. STODDART.

Are all Nerve-cells in Direct Connection with Blood-Vessels? [*Stehen alle Ganglienzellen mit den Blutgefässen in directer Verbindung?*] (*Neur. Cbl., January*, 1900). *Adamkiewicz.*

From theoretical considerations, the author of this paper came to the conclusion that such important structures as nerve-cells must be incapable of obtaining sufficient nutriment in the same simple way as other tissues, and that there must be a more intimate relationship with the blood-vessels in the case of nerve-cells than in other tissues.

He then describes what he claims to be the fine anatomy of the blood-vessels of the large intervertebral ganglia of the brachial plexus. The ordinary arterial capillaries give off finer capillaries—vasa serosa,—which are so fine as to transmit only the fluid constituents of the blood and none of the corpuscules. Each of these vessels makes its way to a nerve-cell, spreads out and envelops the cell like a glove, then narrows down to its original size again, and finally opens into another arterial capillary. Whatever may have been the method by which these structures have been demonstrated in the intervertebral ganglia, it appears to have been inadequate to demonstrate them in the central nervous system.

In support of the view that the nerve-cells in the cortex cerebri are similarly situated with regard to the blood-stream, Adamkiewicz adduces two observations, one physiological and one anatomical. He points out that the exposed cortex is perfectly tolerant of a forcible stream of distilled water flowing over it for hours, while two or three centimetres of distilled water injected into the carotid will immediately produce nystagmus, extensor spasm all over the body, and disturbance of the pulse and respiration. His anatomical argument is that the vascular network in the cortex, as demonstrated by injection of carmine gelatine, is much closer in those parts of the cortex which are rich in ganglia than elsewhere.

The author concludes as follows:—All arteries which enter the brain and spinal cord of man and of animals, at least of the higher animals, end on the further side of the capillaries in very fine plasma vessels, which contain ganglion cells in diverticular expansions.

W. H. B. STODDART.

Autopsy of a Case of Acromegaly complicated with (?) Exophthalmic Goitre and Jacksonian Epilepsy [*Autopsie d'un cas d'acromégalie compliqué de goitre exophtalmique fruste et d'épilepsie Jacksonienne*]. (*Journ. de Méd. de Bord., Oct.* 22, 1899.) *Andérodias.*

This case was one presenting all the signs of acromegaly—hypertrophy of the nose and lower jaw, thick prominent lips, enlarged tongue, spade-like hands, enlarged feet, etc. She also had a goitre, supposed

during life to be exophthalmic. For the last year of her life, she had suffered from convulsions of the face and neck on the right side. She came under observation for, and died of heart disease (mitral incompetence).

The case was radiographed, and it was demonstrated that the enlargement of the hands and feet was due to changes in the soft tissues, while the enlargement of the jaw was due to hypertrophy of bone.

Post mortem the pituitary body was found enlarged to the size of a chestnut and displaced to the left side, so as to block the left cavernous sinus. The bony roof of the orbit was thinned to transparency.

The goitre was cystic, and no trace of the thymus was found.

W. H. B. STODDART.

Histological Examination of a Spinal Cord affected by Syringomyelia and Multiple Heterotopia [*Ricerca istologica d' un midollo spinalo affecto da siringomielia ed eterotopie multiple*]. (*Ann. di Nervol., fasc. i, ii*, 1899.) *Lombardi, G.*

The patient, aged sixty, was admitted to the asylum on February 4th, 1896, suffering from general paralysis. There were fibrillary tremors of the tongue and face muscles, and oscillatory movements of the fingers. The pupils were myotic, unequal, and fixed. The plantar and patellar reflexes were normal, the cremasteric and abdominal increased. The sensory phenomena could not be tested owing to the mental condition. The hands and feet showed trophic changes. The nails were atrophied; the skin greyish white; the phalanges were wasted. There was retroflexion of the distal phalanges and flexion of the second upon the first. The patient died on February 11th. The post-mortem examination showed hypostatic pneumonia and heart failure. There was hyperostosis of the cranial bones; atrophy of the brain and increase of the subarachnoid and intra-ventricular fluid. The spinal cord showed marked thickening of the pia mater throughout its whole length and thickening of the vessels from arterio-sclerosis. There was occlusion of the central canal and diffuse sclerosis of the posterior columns. In both cervical and lumbar regions there were syringomyelitic cavities of new formation. These contained vessels with markedly dilated perivascular spaces, and also an amorphous substance which was to a certain extent disintegrated nervous matter. These were situated in the grey matter surrounding the central canal, and projected, especially forward and to the right.

There was also, in this case, displacement of the posterior cornua and of the anterior commissure, and asymmetry of the anterior columns. These anomalies of conformation support the embryonic origin of the syringomyelia.

J. R. GILMOUR.

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2. Physiological Psychology.

The Psychology of Alcohol (*Amer. Journ. Psych., vol. xi, No. 3, April*, 1900.) *Partridge, G. E.*

This is a study not merely of the effects of alcohol, whether as manifested in inebriety or when taken for experimental purposes, but of the

intoxication impulse generally. The author believes there is a danger of regarding natural phenomena too readily as abnormal. He considers that the methods used by many who have been inspired by Lombroso illustrate this, and remarks that the conclusion of Nordau that all society is pathological is the logical result of an indiscriminate search for abnormalities. Thus we must beware of too hastily regarding the intoxication impulse as abnormal. It has played a part of the first importance both among uncivilised and civilised peoples. "Indeed, it is hard to imagine what the religious or social consciousness of primitive man would have been without them [intoxicants]." The first part of the paper is devoted to an account of the part played by this impulse in the religious and social life of early civilisations. This is followed by an analysis of the state of intoxication, accounts of experiments with intoxicating doses of alcohol, and observations on a series of inebriates. The author's experiments show that in intoxication, unless well advanced, the rapidity of simple mental processes is not decreased. The rapidity of tapping was most affected. Ability to control a reflex wink was greatly increased. There is increased activity of the associations, emotions, and sensations which make up the self. The increase of self-confidence and the diminution of suspicion are important points in their social bearing. "The intimate relation of intoxication to the social impulse undoubtedly accounts—in part at least—for the wide-spread and persistent use of intoxicants. Doubtless it made possible wider social relations than could otherwise have been maintained."

Partridge does not find that the craving for drink is common among drunkards except when there is a decided neurotic taint. In fifty-eight out of the sixty-five cases he studied, there was no evidence of any conscious craving after the first few days. There was a much more marked craving for tobacco. Partridge is decidedly opposed to Archdall Reid's views concerning the existence of any specific craving for alcohol eliminated by selection, and regards these views as built up on a false analogy with zymotic diseases.

After summarising the previous work of Kraepelin and others, Partridge finally gives the results of his own experiments on two subjects as regards the effect of alcohol in small doses on ability to do muscular and mental work. In one subject muscular work (as measured by the ergograph) was decidedly decreased; in the other subject there was no alteration in the work-curve—*i. e.* there was an increase in the first half-hour, and then a progressive decrease. In the psycho-physical tests there was little effect. In addition there was a slight quickening, lasting nearly to end of second hour; in reading and writing a period of quickening followed by retardation. The depressing effect of the alcohol could never be traced on the following day. These results do not altogether confirm Kraepelin's. HAVELOCK ELLIS.

Natural Auto-suggestion [*L'Auto-suggestion naturelle*]. (*Rev. de l'Hyp.*, *March*, 1900.) *Lagrave, Costé de.*

The law formulated as the foundation of auto-suggestion is—"The perceived impression is the cause of mental representation subsequently." A useful mental representation is accepted, and auto-suggestion develops,

enlarges, or multiplies it. Auto-suggestion, through the intermedium of sight, hearing, and thought, is especially considered. As examples of those who practise auto-suggestion through sight are painters, sculptors, architects; through hearing, the musical composer, etc. Constant and persistent practice of auto-suggestion is carried on by the best intellects, and is the cause of intellectual superiority.

H. J. MACEVOY.

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3. Ætiology of Insanity.

The Relationship of Heredity to Periodic Insanity [*Die Beziehung der Heredität zum periodischen Irresein*]. (*Monats. f. Psychiat. u. Neur., B. vii*, H. 2 *u.* 3, 1900.) FITSCHEN, E.

The statistics and deductions on this subject by Jung, Grainger Stewart, Legrand du Saule, Ulrich, v. Krafft-Ebing, Bevan Lewis, Ziehen, Fronda, and Kraepelin, are first reviewed and considered. Dr. Fitschen deals with 120 cases, some of which—indeed, the larger proportion—were not personally observed. This consideration detracts from the value of her paper, knowing the worth of asylum histories. The object of the paper is to determine—

(1) If hereditary taint is more frequently found in periodic insanities than in insanity generally.

(2) Does any connection exist between the intensity of the hereditary factor and the course and intensity of the disease?

(3) If periodic insanities are found very frequently in individuals with the physical signs of degeneration.

The following conditions are observed by Dr. Fitschen in her inquiry. All cases with more than one relapse are called periodic; all cases used to determine the intensity and the course of the disease have been followed out by observation and letter, if necessary for years. Dr. Fitschen had in the institution 8 cases of mania, 2 of melancholia, 21 of a mixed type—*i.e.* 31 in all. In all cases, except 3, hallucinations were present, in 3 they were the main feature. The occurrence of attacks and their disappearance show little regularity on the whole, and the periodicity was in many cases poorly marked, and in the cases in which it was well marked it was so only for a time. In the 89 cases which were not personally observed, there were 22 of pure melancholia, 35 of pure mania, and 32 of a mixed type. Of the whole 120 cases hereditary influence was traced in 97, *i.e.* 80·8 per cent. In the same district, the percentage for general mental disease was 78·2, a difference slight and possibly accidental. The idiopathic insanities were 81·9 per cent. according to Koller, so that their heredity was better marked than the periodic insanities, though the latter exceeded epilepsy and alcoholic insanity. In the 80·8 per cent. there were 57·5 per cent. with direct hereditary taint, in 10 per cent. of these from both sides. This differs but little from the ordinary percentage. Dr. Fitschen believes that the direct hereditary taint is more marked in recurrent insanities than the atavistic here-

ditary influence, and on this point her views are quite opposed to those of Bevan Lewis. The hereditary factors, in this series of periodic cases, averaged 2·2 per individual, as opposed to 1·7 in the general material of the same district. By an hereditary factor, Fitschen understands a neurotic member in the family of a patient within a certain degree of relationship. If the factors are analysed, we find more insanity, suicide, and peculiar character than usual amongst the periodic cases, and less drunkenness, nervous disease, and apoplexy. What types of mental disease form the hereditary factors in periodic insanity? They are frequently similar, but the histories are too vague to dogmatise. What effect has periodic insanity on the offspring? In 26 cases we found 6 only who transmitted mental morbidity. The progeny, in some cases, were not old enough to draw absolute conclusions from. Then follows a table showing the transmission of hereditary influence through several generations. Of the 73 children of these cases, 14 were mentally weak, but these 14 were confined to 6 families. These families showed a marked tendency to degeneracy. What influence has heredity on the severity of the course of the disease, and on the amount of periodicity it shows? Fitschen here divides the cases with respect to the extent of hereditary influence into (1) severe, (2) medium, (3) slight, and (4) free, using these terms with definite arbitrary meanings; *e.g.* in the first group we have double direct taint, or one parent with another member of the family affected, and also cases where two or more of the brothers or sisters were psychically abnormal, or again where very many members of the families of parents were affected.

The factors determining the severity of the disease were (1) early appearance of mental derangement, (2) number of attacks, (3) their intensity and the length of time they lasted, and (4) the amount of dementia and the general result of the disease.

A table is given showing the influence of heredity on the time of occurrence. With no hereditary taint 4·3 per cent. started at or before 25; with intense hereditary taint 45 per cent. started before the same age. With no hereditary taint 56·4 started after 35; with intense hereditary only 25 per cent. after that age. The influence was not so marked in cases of slight and moderate heredity.

The relationship between hereditary influence and the number of attacks is less definite, but to some extent it holds good. One point worthy of remark, however, is that though men are more markedly affected by heredity than women, the periodicity is not so well defined in the male as in the female sex.

Tables are given showing the influence of heredity on (1) the duration of the attacks, (2) the intensity of the attacks, (3) the length of lucid intervals, and on the dementia produced.

Do cases of periodic insanity show more of the physical signs of degeneration described by Laubi than ordinary insane cases? Amongst the deformities of the skull observed were one case of microcephaly, one case of macrocephaly, one case showing a depression in the region of the small fontanelle. Prognathous projection of the submaxilla was present once. Eyebrows were occasionally affected, only once markedly. Abnormally deep-set eyes occurred twice. Heterochromia iridis once present, deflections of the nose occurred twice, an abnormally broad

nasal root once, excessive distance between eyes once, swollen under lip twice, a deformed high palate once. Other abnormalities were poor development of the ears twice. The hands, skin, and hair in these cases were further dealt with. Generally, it might be stated that physical signs are less frequent than in epilepsy or idiocy, and of about the same frequency as in ordinary cases of insanity. The relationship existing between the number of physical signs and the severity of the disease is next dealt with, and no relationship made out, nor was any relationship found to exist between the amount of hereditary influence and the course of the mental development in individual cases.

W. J. PENFOLD.

The Relation of Insanity to Pelvic and other Lesions. (*Amer. Journ. Obstet., January*, 1900, *rptd. in Med. Rev.*) *Hobbs, A. T.*

The results recorded in this paper are as follows:—Out of 800 admissions to an asylum, 85 per cent. had lesions of the pelvic organs, such as subinvolution, endometritis, disease or laceration of cervix, retroversion or prolapse, disease of ovaries and tubes, and, to a less extent, cervical polypi, dysmenorrhœa, menorrhagia, new growths, etc. Operations were performed in 173 cases, of which 42 *per cent.* recovered, 24 *per cent.* improved, 32 *per cent.* remained unchanged, and 2 *per cent.* died. The relationship of physical state to mental effect was illustrated by the fact that 0·2 of the 114 patients who either recovered or improved had been insane two or more years prior to the operations being performed. The most important lesions in this respect were those of the inflammatory type, displaced organs coming next, and tumours being the last.

J. R. LORD.

Psychical Disorders of Tubercular Origin [*Troubles psychiques d'origine tuberculeuse*]. (*Rev. l'Hyp., Feb.*, 1900.) *Bernheim.*

The notes of five cases of phthisis with mental disorder are given, in which it is difficult not to believe that the insanity was of tubercular origin. The author briefly reviews the observations of various alienists in this relation. At the same time, it is difficult to define any form of insanity as purely phthisical; from melancholia and neurasthenia to confirmed dementia and violent dangerous mania may be seen. In certain criminal cases, phthisis is a factor to be considered. As regards the pathology of the mental signs, Bernheim dwells on the marked influence of infectious agents on the nervous system generally. The ætiological importance of pulmonary phthisis in the causation of mental disorders, in addition to the weight it derives from clinical observation, is supported by the marked analogy which one finds between the pathogeny of psychical disorders of infectious origin and the pathogeny of the psychopathies co-existing with tuberculosis, and by experimental proofs.

Another point considered by Bernheim, is the evolution of insanity in tubercular subjects, with the most common forms of psychoses noted. The description of phthisical insanity given by Clouston, he believes to be in the main exact. The latency of pulmonary tuberculosis in the insane is so important that a careful examination of the lungs should always

be made in cases of melancholia, mania, etc., especially when the patient gets thinner or appears to be going downhill. The possibility of tuberculosis, with or without mental disorder, in association with criminal tendencies is of medico-legal importance. H. J. MACEVOY.

Latent Phthisis and its Relation to Insanity. (*Brit. Med. Journ., Feb. 17th*, 1900.)

J. Chartier (*Thèse de Paris*, 1899) has studied this subject at the Roche-sur-Youne Asylum. Among other conclusions, he finds that degeneracy of the brain and an hereditary tendency to insanity increase the liability to suffer from the cerebral symptoms produced by tuberculin, as well as to other cerebral toxins. There is no true phthisical insanity; tuberculous individuals may present an endless variety of mental disorders; alternate cases of phthisis and insanity are exceedingly few in number, and the interpretation put upon such cases must be received with caution. Between tuberculosis and insanity attacking the same family, there exists only the very general bond of degeneracy.

H. J. MACEVOY.

On the Insidious Effects of Alcoholism [*De l'alcoolisme insidieux*]. (*Prog. Méd., March 3rd*, 1900.) *Glénard.*

None will deny the extreme importance of running to earth the alcoholic habit before it has declared itself by its characteristic effects upon the nervous system, the alimentary tract, and the liver. Such effects stamp unmistakably that which Dr. Glénard styles l'alcoolisme *franc*. To that state of body which reveals no sign of the effects of alcohol, though these effects may at any moment declare themselves either by the development of one or other of the above-mentioned symptoms of l'alcoolisme franc, or by the course which some intercurrent disease assumes—to such state he applies the term l'alcoolisme *latent*. He reserves the term alcoolisme *insidieux* to describe certain nutritional disorders which are according to him a common consequence of alcoholism, though other factors may produce them. These disorders are obesity, lithiasis (biliary and renal), diabetes, gout, divers neurasthenias and dyspepsias. In general, Dr. Glénard makes these states depend upon a perverted action of the liver, which itself is the result of the alcoholic habit. Without admitting that he proves his case, we may well accept the hint, and in cases of the above disorders search carefully for a possible alcoholic cause. The objection to Dr. Glénard's ætiology is that it threatens us with a name "hepatisme," which, like "arthritisme," may become an incubus, the more burdensome because of its vagueness. HARRINGTON SAINSBURY.

Indol: its Clinical Significance. (*Bull. of the Lab. of the Mount Hope Retreat*, 1899.) *Richardson.*

The formation of indol in the large intestine by the putrefaction of proteid matter, its artificial production, its effects upon men and animals, and its mode of elimination are all described. That a substance so formed should be much influenced as to quantity by varying

states of the alimentary tract is *a priori* likely, and has been established clinically by the discovery of increased production in cholera, stomach and intestinal catarrh, ulcer of the stomach, dilatation of the stomach, etc. Carcinoma of the liver and stomach also shows increased production. Besides these states suppuration in any part of the body causes an augmentation. The investigations recorded in this paper concern its production in mental conditions, *e.g.* in various forms of mania, in melancholia, paranoia, and epilepsy; also in albuminuria, whether in association with uræmia or not is not stated. In all of these it was found increased, but it is evident that a substance which is present in so many morbid states has a correspondingly diminished diagnostic value, and it is clear that the concluding sentence states the case correctly, viz. that further observations are required before the pathological importance of indol can be correctly estimated.

HARRINGTON SAINSBURY.

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4. Clinical Psychiatry.

Notes of Twenty-two Cases of Juvenile General Paralysis, with Sixteen Post-mortem Examinations. (*Arch. of Neur., L.C.A.*, 1899.) *Mott, F. W.*

In this paper, Dr. Mott sets forth the clinical history of twenty-two cases of juvenile general paralysis, together with the results of sixteen post-mortem examinations, and draws various conclusions therefrom. The majority of the cases were inmates of the London County Asylums, a few being obtained by Dr. Mott from outlying institutions. The records have been compiled in some instances by Dr. Mott himself, the remainder by the assistant medical officers; and although in this brief notice the clinical notes cannot be touched upon, their uniform excellence is worthy of mention.

Dr. Mott approaches the subject under various headings—Ætiology, Sex, Social Condition, Causation, Duration, Symptomatology, Pathology, and Diagnosis.

He points out that prior to 1877 the condition was unknown, and that Dr. Clouston was the first to show that both clinically and pathologically the disease was practically identical with general paralysis in the adult. Since that date seventy-two cases other than Dr. Mott's have been recorded, principally by Alzheimer and Thiry.

Under *Ætiology*, Dr. Mott shows that the average age of onset is seventeen years, fourteen years according to Thiry's table, the extreme ages being eight and twenty-three years. No precise period of onset can therefore be given.

As regards *Sex*, he points out that, in contradistinction to the adult form of the disease, where males are more frequently attacked, the sexes are equally affected.

The course of the disease in males is more rapid, possibly owing to masturbation. When the onset occurs prior to puberty, infantile development of the reproductive organs is usually evident.

The *Social Condition* of all the cases was that of the lower or lower middle classes. Thirteen were capable of earning their livelihood; some of the remainder were imbeciles or mentally deficient.

Discussing *Causation*, although various exciting causes—such as the stress of pregnancy, lactation, puberty, worry, and masturbation—are given, Dr. Mott strongly emphasises the fact that hereditary syphilis, which produces a defective vitality to resist any form of stress, is practically always present as the predisposing factor. Proof of syphilis was obtainable in 80 per cent. of the cases, and could not be altogether excluded in the remainder. He does not regard hereditary insanity or neuropathy of much importance in this respect.

The *Duration* of the disease varies from three months to seven years. The younger cases are seemingly of longer duration.

Under *Symptomatology*, Dr. Mott points out that all the cardinal features of the disease in the adult are present, but that the convulsive seizures are mild in type, and that delusions of grandeur are comparatively infrequent.

The *Pathology* of the disease is briefly mentioned, and is substantially the same as in the adult form.

With regard to *Diagnosis*, it is urged that the disease should be suspected in all cases where hereditary syphilis is present, and where, from the period of puberty onwards, progressive degenerative symptoms supervene.

The paper concludes with remarks on the *Differential Diagnosis* between the disease and tumor cerebri, brain syphilis, multiple sclerosis, neurasthenia, hysteria, melancholia, and mania.

Excellent photographs and photo-micrographs are given.

P. T. HUGHES.

Singular Condition of the Pupils in a Case of Commencing General Paralysis [*Singolare contegno delle pupille in un casa iniziale di paralisi progressiva*]. (*Riv. di Patol. Nerv. e Ment., Sept.*, 1899.) *Tanzi, E.*

The patient, born in 1849, was a hard-working farm labourer. There was no history of syphilis or alcohol. He was admitted to the asylum in May, 1896. He was then agitated and incoherent, with religious delusions. Within a few days the right pupil was noted to be much smaller than the left, and in a state of rigidity; the left also reacted slowly, and only on bright illumination approached the right in size. In ten days he had a lucid interval, during which the pupils were equal and reacted well. This remission and exacerbation of the mental symptoms recurred on three occasions, and on each was accompanied by the same pupil changes. He was discharged in August, 1897, apparently cured. Two years later he was readmitted with well-marked general paralysis. The pupils then presented the same phenomena as on his first admission.

The author concludes that the marked parallelism of the mental symptoms and the pupil changes points to a common origin, probably a toxic process. This does not affect the various centres equally or simultaneously, and causes at first a functional paralysis only.

J. R. GILMOUR.

Malignant Tumour and Insanity [*Tumeur maligne et aliénation mentale*]. (*Rev. de Psychiat., No.* 5, 1900.) *Jacquin, G.*

There exists still much difference of opinion as to the part played by cancer in the ætiology of insanity. In the case here related by Jacquin, he believes that the malignant tumour was a strong factor in the causation of the insane attack; but it is important to remember that injections into the body of the tumour were made, and that some septic mischief was set up thereby. A woman, æt. 31 years, was admitted into the Hospital de la Croix-Rousse (Lyon) on July 3rd, 1899, with a swelling on the right side of the neck of the size of a walnut, thought to be lymphadenoma. Three days later iodoform with ether was injected into the tumour after incision. After a few days' suppuration the wound healed. Three months later, the patient returned with the tumour a good deal larger—the size of a small fœtal head. There was a good deal of pain, and signs of pressure on the right brachial plexus were present. Every third day arsenical injections were made into the tumour without any result. On November 29th, the patient was admitted into Bron Asylum suffering from delusions of persecution, with hallucinations of hearing and sight. From a fistulous opening in the tumour, very fœtid blood-stained matter escaped. There was marked cachexia. The delusions and hallucinations persisted, fever set in, the general condition grew worse, and the patient died on February 12th. There was no autopsy. H. J. Mackvoy.

Delusions of Persecution, with Hallucinations of Hearing and Sight consecutive to Psychical Traumatism in a Patient suffering from Glycosuria; Hypnotic Treatment and Cure of the Mental Disorder in Spite of the Persistence of Glycosuria. (*Rev. de l'Hyp., April,* 1900.) *Farey, P.*

The patient was a Jewess, æt. 34 years, who after some mental worry —due to anti-Semitic disturbances in the town in which she lived, and to the severe illness of one of her children, etc.—was suddenly awakened one night by cries of "Death to the Jews!" arising from a mob disturbance outside her house. This appears to have determined in her mind delusions of persecution—that she was pursued, that she was to be killed, etc. Hallucinations of hearing, terrifying dreams, insomnia followed, and the patient became anxious, suspicious, jealous—a complete alteration of character. Some perversions of intellectual functions (weak memory, abulia, etc.) were present. At the end of four months, she was brought to Dr. Farey, who decided to try hypnotism. An examination of the urine revealed the presence of a marked quantity of sugar, which was not suspected. In addition to prescribing an antidiabetic diet, chloral, sulphonal, and trional were ordered to be administered alternately at night, and daily *séances* of hypnotic suggestion were tried. The patient rapidly began to improve, and within a month was well. The glycosuria, which persisted for a while, also soon cleared up.

This case presents many points of resemblance to cases referred to by Lépine and P. Marie (*Semaine médicale*, October 25th, 1899), which, with melancholia and ideas of ruin, tendency to suicide, insomnia, abulia, little or no polydipsia, polyphagia, or polyuria, and a urine of

normal specific gravity (or almost normal), exhibit in the latter a substance which reduces Fehling's solution and deviates the plane of polarised light to the *left*. Withholding carbohydrates leads to a rapid cure. Farey excludes his patient from this group of cases with the "levulosuric syndroma," because cutting off the carbohydrates did not produce a rapid disappearance or even diminution of the glycosuria, and the sugar found in the urine caused rotation of the plane of polarisation to the *right*. He considers that the hypnotism cured the insanity.

H. J. MACEVOY.

Clinical Notes on Paranoids [*Note cliniche sui Paranoidi*]. (*Arch. di Psichiat., vol. xx, fasc.* 4.) *Pianetta, C.*

Under this title, Dr. Pianetta discusses the pseudo-paranoiac symptoms which occur in degenerate subjects, illustrating his remarks by three personal observations. As characteristic of the group of "paranoids" which he describes, the author indicates that they manifest a tendency to erroneous interpretation of outside impressions in some special direction, without, however, elaborating a systematised delirium; their mental state is thus that of incipient paranoia,—at times, perhaps, undergoing an exacerbation which renders them for the moment symptomatically indistinguishable from cases of typical paranoia. The author points out the affinities of these cases to the *paranoia sine delirio* of Tanzi and Riva, and to Magnan's mental degeneracy with episodic syndromes, with which, indeed, the cases recorded appear in all respects identical. The first observation is that of a man with hereditary taint, in whom mental disorder first appeared shortly after marriage; recovery was rapid, but the patient subsequently manifested neurasthenic symptoms with a disposition to hypochondriacal, self-depreciatory, and persecutory ideas. Generally these ideas had an obsessional character and were more or less readily repressed, but at times they acquired the force of delusions, were supported by hallucinations, and on one occasion led to a suicidal attempt. The author draws special attention to the passage from obsession to delusion in this case. The second observation refers to an individual hereditarily unstable, eccentric, and morbidly vain, who presented at intervals a tendency to disconnected delusions, chiefly hypochondriacal and persecutory. In the third observation, the patient, aged twenty-three, mentally degenerate as a result of insane heredity and of infectious disease in childhood, presented at intervals imperfectly defined delusions of persecution. Of very defective ethical development, he was repeatedly condemned for theft and for sexual offences, and two of his persecutory episodes occurred in prison.

W. C. SULLIVAN.

Microcephaly [*Ein meiterer Beitrag zur Lehre von der Mikrocephalie*]. (*Jahrb. f. Psychiat. u. Neur., B. xviii, H.* 3, 1899.) *Pilcz, A.*

This is a long paper on a case of microcephaly which Dr. Pilcz studied in the University Klinik at Vienna.

The grandfather and father of the subject, K. A—, were habitual drunkards, the latter being also brutal and violent; but the mother was healthy, and had been twice married. A child of the first marriage died

of weakness soon after birth. By the second husband, the woman had ten children, of whom four—three boys and one girl—were microcephalic idiots, and the other children were hydrocephalic. Five of them died; but one daughter, who still lives, is simple-minded, though she is able to earn her livelihood. The latter is married and has four children, who are all imbecile, but none of them microcephalic. K. A— learned to walk when four years of age, but never spoke save to utter a few foul expressions. At thirty-six years he became so troublesome and aggressive that he was sent to the asylum. His height was 145 cm., the circumference of his head was 47·5, the longitudinal diameter 12·5, the transverse being 10·75 cm.

On admission, he was found to be irritable and vicious, ready to scratch and bite, but friendly to those whom he knew. He was dirty in his habits. Sexual feelings seemed quite absent. He died of phthisis when forty-one years old.

At the *sectio*, the heart was found to be small. The thyroid gland was well developed, but its parenchyma was yellow and translucent, and granular with colloid degeneration. The cranial sutures were found *open*. Owing to the smallness of the cerebrum part of the cerebellum was left uncovered. The left hemisphere was a little smaller than the right. The left island of Reil was partially exposed as in the embryo. The corpus callosum was short, measuring only 4·5 cm. This is a common feature in the brains of microcephales. The brain convolutions were plump and simple, with few secondary gyri, exhibiting the condition which has been observed about the sixth month of intra-uterine life. The cerebral vessels were small in calibre and their coats thin. There was an absence of changes which might be thought pathological. Nothing abnormal was found in the cerebellum. The pineal gland was found to be enlarged. The spinal cord was smaller than usual, and instead of being elliptical it was on section circular in shape.

The deficient development seems to be confined to the lateral columns. A most careful microscopic examination of the brain was made, but nothing particular was found save smallness of the ganglion cells of the cortex, which were also irregularly distributed. Betz's giant-cells in the median gyri were found to be normal. A page of coloured lithographs exhibits the appearance of these structures. There is a striking full-length portrait of K. A—, and seven woodcut engravings of parts of the brain and spinal cord. The fibres of the tangential and association systems of the cerebral cortex seemed also unaffected. The colloid degeneration of the thyroid was confirmed by microscopic examination. He was evidently a true case of teratological microcephaly, dating most likely from the fifth or sixth month of intra-uterine life.

Dr. Pilcz then considers at length the different attempts that have been made to aid the development of microcephalic brains by the removal of the strips of the bones at the margins of the cranial sutures. These operations, based upon an incorrect pathology, never met with much favour in this country. The careful observations of Bourneville, which showed that in many cases the sutures remained open, have proved that such surgical interference is unjustifiable.

The great number of references at the end of the article does much credit to the industry and learning of the author. W. W. IRELAND.

On the Mental Disturbances of Epileptics [*Beitrag zur Kenntniss der Seelenstorungen der Epileptiker*]. (*Allgem. Zeits. f. Psychiat., B. lvi, H.* 5, 1899.) *Deiters.*

Dr. Deiters commences his article by stating that, since Samt's investigations on the forms of epileptic insanity, it has generally been recognised that the mental symptoms are very characteristic; indeed, some hold that the presence of epilepsy may sometimes be inferred from the psychical manifestations alone. Sometimes, however, insanity combined with epileptic seizures takes a different character, approaching the forms of other vesaniæ. He gives at some length the description of a patient fifty-five years old, who had epilepsy combined with delusions of a paranoic nature. He had led a vagabond life, had been in prison for stealing, and had been passed on to a workhouse as incapable of earning a livelihood. When admitted to the asylum at Andernach, he was found to be lazy and indifferent, to have religious delusions, and suspicions of being poisoned. He said that at night people put "oprigus" under his nose, and that he was going to be made pope. Finally, he imagined that he was actually crowned as pope, and that Christ had appeared to him and held a chalice over his head, etc. Other cases of hallucination and systematised delusions have been described by Gnauck, Pohl, Buchholz, and others. Magnan thought that several psychoses might exist together. Deiters observes that the forms of insanity which he specifies are technical divisions rather than specific diseases, but that fairly distinct forms may supervene the one upon the other. He thinks that the mind never remains intact after repeated epileptic seizures. Epilepsy prepares the ground for insane ideas, but the character and sequence of these ideas may now and then take an unusual course. W. W. IRELAND.

A Clinical Lecture on Minor Epilepsy. (*Brit. Med. Journ., Jan. 6th,* 1900.) *Gowers, Sir William.*

The lecturer begins by discussing some of the features which belong to epilepsy as a whole, pointing out the paroxysmal nature of the disease, and emphasising the fact that the seizures are symptoms of an underlying brain condition. In this connection, he gives a good working clinical classification, dividing the malady into organic and idiopathic forms. As he remarks, in order to learn we classify and separate, but we must remember that nature does not recognise our sharp distinctions, and gives many examples of an intermediate class. These come between *haut mal* and *petit mal*, and may be termed medium epilepsy. Having thus introduced his subject he passes to the minor form of the idiopathic variety, describing the phenomena which it includes and which are its manifestations. He teaches that the most typical form is when there is loss of consciousness as the only symptom, but denies the prevalent idea that loss of consciousness is essential. There is, he admits, always a pervertion or obscur-

ing of that state, but this need not amount to obliteration. When the loss of consciousness is very sudden, there is no attendant sensation that can be recalled, *e.g.* the case quoted. When consciousness is not lost so abruptly, if the area of the brain affected have to do with sensation, there is time for a varied number of sensations to be recorded. These sensations vary in each case, and are included under vertigo—subjective and objective—a curious dreamy feeling, affections of the special senses, general and visceral sensations and emotional states. He finds that gustatory sensations rarely attend minor attacks, although smacking of the lips frequently accompanies the dreamy state. Certain motor manifestations are also found, *e.g.* twitching, relaxation, and paresis of muscles generally occurring with loss of consciousness. In describing the after state, *i.e.* the condition in which the attack leaves the patient, he says that the most frequent is a dazed condition with post-epileptic automatism. Here we find organised motor acts performed with a continued comparative loss of consciousness. In coming out of the attack full consciousness is the last function to be restored. Sometimes the patient passes into a state of mania and commits an act of violence—homicidal impulse. He enumerates certain accidents which may occur, but these are not common in minor attacks.

The diagnosis has to be made from cardiac syncope, non-epileptic forms of vertigo, and hysteria.

The note on treatment is brief. He finds that the bromides have less beneficial results than in major epilepsy. The chief point is prolonged treatment; the drug chosen should be given in diminishing doses over a long-continued time. G. A. WELSH.

Hungry Evil in Epileptics. (*Alien. and Neur., Jan.*, 1900.) *Féré, Ch.*

This is a dissertation on one of the rarer visceral symptoms found in epileptics. The opening paragraphs concern themselves with a description of the history of the symptoms, how it was first observed in horses. Passing from this, the author discusses analogues in the fermented stomach cravings found in man and the lower animals. He puts on record several cases to show that hunger may be manifested in epileptics as "faim-valle" is in horses, and is of opinion that, when it is better understood, it will be oftener met with.

In case No. 1 "faim-valle" occurs as an alternating symptom with others characteristically epileptic. It is an evidence of a sudden need which if not relieved leads to unconsciousness. In the succeeding cases it plays the part of an aura of *grand mal*, a point of great interest being that the attack can be aborted if food is given at once.

G. A. WELSH.

Senile and Cardio-vascular Epilepsy [*Die senile und cardiovasale Epilepsie*]. (*Monats. f. Psychiat. u. Neur., B. vii, H. 4. u. 5*, 1900.) *Schupfer, F.*

Dr. Schupfer first shows how in recent years the percentage of senile epileptics, as given by different authors, is uniformly less than formerly. This, he asserts, is due to the more careful histories at present taken.

He believes that many of the older cases of senile epilepsy were really cases of recurrence in old age. He then gives nine cases which started after the age of fifty years. He does not recognise any essential difference between senile and late epilepsy, pathologically, ætiologically, nor yet symptomologically. In three of the nine cases, a post-mortem was made. The causation of senile epilepsy is then fully dealt with. The influence of heredity in senile epilepsy is discussed, and ten neurologists are quoted who have recorded cases with marked heredity. He disagrees with Nothnagel that late epilepsy is simply symptomatic. Gout, malaria, emotional disturbance, fright, alcohol, syphilis, trauma, venereal excess, heart disease, etc., are all considered as possible causes, but little new matter is introduced. The influence of alcohol was frequent in Schupfer's own cases. Of the nine cases, eight were men and one a woman. This preponderance in the male has also been noted by Gowers, but according to Féré it is more frequent in women. Schupfer divides late epilepsy into general, partial, and rudimentary, dependent on the character of the attacks. Its separation from uræmic convulsions of kidney disease is important, and in all senile convulsions the urine should be exhaustively examined. The French describe a functional insufficiency of the kidney without albuminuria, and Schupfer asks if this may not account for convulsions occasionally, but neither Krainsky nor Binswanger have found any actual increase in the toxicity of the blood. In one of Schupfer's cases congestion of the kidney was found post-mortem, and kidney troubles without albuminuria have been remarked several times. Lüth, in twelve cases of senile epilepsy, found three cases of simple renal atrophy, three cases of granular atrophy, two cases of cystic kidney, and one case with lime deposits. But in life, only two of these showed signs of chronic nephritis, so that quite probably kidney insufficiency is a more important cause of late epilepsy than is generally supposed. A second form of general or partial senile epilepsy may be due to organic brain disease. A third form is due to syphilis. Devay describes a case of epilepsy from secondary syphilis in a man of sixty-nine, and genuine cases of tertiary syphilitic epilepsy have been recorded. A fourth form arises from softenings due to embolus or thrombosis in the internal capsule or basal ganglia; two of Schupfer's cases are of this type. These may occur with or without paralysis, and the epilepsy is frequently preceded by symptomatic spasms, which spasms may subsequently form motor auræ of ordinary fits. A fifth form of late epilepsy is associated with abortive attacks of an apoplectiform character. Two illustrative cases from Binswanger are given. A sixth form consists of loss of consciousness with locomotory movements. This type is usually found in young people, but was present in a patient of Schupfer's, of fifty-eight years. The movements simulate those obtained on irritation of the anterior corpora quadrigemina or the optic thalamus. In these cases there occur also fully developed ordinary fits. The remaining part of the paper is devoted to the relationship of epilepsy to cardio-vascular changes. The cases (or work) of Lemoine, Crocq, Rosin, Mendel, Leyden, Klemperer, Rossi, Naunyn, Mahnert, Beer, Binswanger, and Lüth are shortly given for and against the facts—(1) that heart valve lesions are frequently the cause of epilepsy, (2) that pressure on the

carotids in suitable cases produces fits from cerebral anæmia, (3) that post-mortem arterio-sclerosis is found in nearly all cases of senile epilepsy. Experiments on the condition of the circulation in epilepsy and epileptic fits are reviewed, and found contradictory. The effects of complete experimental cerebral anæmia and also of passive congestion of the brain are described, and found to be similar in the two cases. The effect of partial anæmia from embolus or thrombosis is fully looked at. As an illustration, the Sylvian artery is taken, and variations of the clinical picture are shown to depend on the exact position of the lesion and the rapidity of its production. After summarising the forms of senile epilepsy, the different varieties of modified epileptiform attacks found in senile epilepsy of a cardio-vascular character are described. Some notes on treatment finish the paper, which call for no remark. W. J. PENFOLD.

A Dancing Disease of Madagascar. (*Brit. Med. Journ., Feb. 17th*, 1900.)

Attention is drawn to Lasnet's notes on the Sakalavas or West Coast Malagasies published in the *Annales d'Hygiène et de Médecine Coloniales*, which include the description of a curious epidemic nervous affection met with amongst the natives. It begins suddenly, and consists of incessant shaking of the body, accompanied by irregular movements, incoherent speech, and delirium; the patients indulge in wild bacchanalian dances, finally falling to the ground panting and foaming at the mouth. Some clamber up the rocks, while others pass whole days in pools or rivers, declaring that they are forced to remain there by spirits. They present meanwhile a most wild appearance, and, if not dancing, walk straight before them with head erect and eyes constantly rolling. It is very communicable.

It seems to closely resemble the pandemic chorea of the Middle Ages described by Hecker (*Epidemics of the Middle Ages*), the tarantism of Italy, and other hysterical epidemics which have been observed at various times and in various countries, to which the *British Medical Journal* recalls attention. H. J. MACEVOY.

Auto-mutilation supervening under the Influence of Dreams in a Hystero-epileptic [*Auto-mutilation survenant sous l'influence de rêves chez un hystéro-épileptique*]. (*Rev. de l'Hyp., March*, 1900.) *Bérillon, E.*

The patient was a man, aged 31, subject for some years to impulsive attacks occurring in the morning, a few minutes after waking. With cries of fear, he would make unconscious attempts at suicide, resulting in severe self-mutilation; on different occasions, he wounded his skull with a hatchet, destroyed the sight of one eye with a knife, pulled out seven teeth with pincers, bit his tongue severely by holding it between his teeth and punching his lower jaw upwards, etc. A feeling of satisfaction follows these acts. There is no loss of consciousness during the attacks, no foaming at the mouth, no incontinence of urine. They reproduce a dream in which he believes he is accomplishing these

acts. Under hypnotic treatment he got well; the dreams being inhibited. He has become sociable, is happy, and can work.

H. J. MACEVOY.

Alterations of the Personality under the Influence of Morphine [*Altérations de la personnalité sous l'influence du morphinisme*]. (*Rev. d'Hyp., April*, 1900.) *Bérillon.*

The case is described of a young woman who presented an absolutely different personality according to whether or no she was in a state of morphinomania. At the age of twenty-three, while on board a ship, she first became addicted to morphia, and for the next few years she was alternately well and morphinomaniac, presenting with each phase a characteristic and markedly different personality. While taking morphia she was sedentary, calculating, most careful of her affairs, endowed with a wonderful memory, logically minded, and she showed an absence of affection. When cured of her morphia habit, on the contrary, she ceased to care about her affairs, was liberal, extravagant, heedless of the future; her affective side was in evidence. It would almost seem as if in this case morphia produced an inhibition of the affective centres, permitting of a preponderating action on the part of the intellectual faculties. H. J. MACEVOY.

A Case of Prolonged Sleep lasting Seven Months with Tumour of the Pituitary Body [*Sur un cas de sommeil prolongé pendant sept mois par tumeur de hypophyse*]. (*Nouv. Icon. de la Salpt., March, April*, 1900.) *Soca, F.*

A girl, aged 18 years, of apparently healthy antecedents, was taken suddenly ill, about three weeks before admission into the Caridad Hospital, Montevideo, with loss of consciousness (? character of attack), following upon which her sight became weak, her walk hesitating, and she complained of severe headache. She was found in hospital to have double optic atrophy, and had attacks of vomiting which disappeared after five days. But the most interesting feature was the rapid onset of obstinate sleep. She could be awakened periodically for food, for attention to the bowels, and could be roused from sleep for examination or conversation; but, left to herself, she at once relapsed into deep sleep, and this went on for seven months. There were no definite localising signs, but the patient became generally weaker bodily and mentally; she was occasionally dirty, and finally died. She had no fits.

At the autopsy, a dark red very soft sarcoma, of the size of a Tangerine orange, was found covering the sella turcica and optic chiasma, adherent to the brain on the one hand and to the dura mater on the other. The optic nerves at their origin, the chiasma, the anterior part of the optic tracts, were lost in the tumour. The third and fourth nerves, though overlapped by it, seemed to be intact.

Reviewing the literature of the subject, and discussing the question of the varieties of pathological sleep, the author classes this case with those of Gayet and Wernicke. In his case, as in theirs, there was

marked affection of the grey matter of the aqueduct of Sylvius (nuclei of third and fourth pairs of cranial nerves) and the grey matter of the floor of the third ventricle. Looking over some 900 observations of cerebral tumour, in many of which unfortunately no reference is made to the question of sleep, the author finds that this phenomenon of prolonged sleep is rare. Attention is drawn to two points among others of interest in the case. One is the absence of the symptom of Bernhardt—a contrast between a marked diminution of vision and a healthy optic nerve, or very little altered ophthalmoscopically, which is said to be a frequent if not constant sign of tumour of the pituitary body. The second was the absence of ocular paralysis, although the oculo-motor nerves were apparently compressed by the tumour—even lost in its substance. The consistency of the tumour—soft, diffluent, semi-liquid—may possibly explain this anomaly.

H. J. MACEVOY.

Cortical Hyperæsthesia in Acute Alcoholism [*Hyperesthésie corticale dans l'alcoolisme aigu*]. (*Arch. de Neur., May*, 1900.) *Cololian and Rodiet.*

Various authors have drawn attention to the fact, that alcoholic patients suffering from hallucinations behold their false perceptions increase in intensity under the influence of peripheral stimuli. This is especially the point studied by Cololian and Rodiet. Hallucinations of the various senses were thus induced: olfactory by alternate compression and relaxation of the nostrils; gustatory by lightly rubbing the upper surface of the tongue; auditory by lightly tapping the external auditory meatus; visual by compression of the eyeballs, etc. This hyperæsthesia, which they believe is localised in the cortex of the brain, in the sense-centres, is, however, not limited to the brain, as we know that the peripheral nerves, the nerve-endings, are also affected; but the nature of the lesion is probably not the same, for in the latter case we know that there is evidence of peripheral neuritis, and the brain may not present any definite lesion. These phenomena are only present in a limited number of cases, and only in recent alcoholic cases, before the toxin is eliminated. In order to guard against error, they exclude all cases deeply intoxicated, with much agitation, with delirium tremens, fever, etc. Complete notes of eight cases presenting these induced hallucinations are given.

Accepting the definition of an hallucination as the result of some pathological stimulus of the sensorial centres of the cortex, they conclude that the phenomena observed in their patients are true hallucinations. If we subdivide hallucinations into two kinds—those induced by peripheral stimulation, peripheral hallucinations; and central hallucinations, induced by mental excitation—the hallucinations with which they deal would be classed among the former (peripheral).

In all the patients, hereditary degeneration was noted, and the tenacity of the hallucinatory disorders was proportional to this inherited stigma, although differing according to the individual.

As regards the nature of the alcoholic drinks most likely to produce this cortical hyperæsthesia, they find that those drinks which are

especially prone to produce epileptiform convulsions rank first; absinthe heads the list, then bitters, vermouth, etc.

H. J. MACEVOY.

Hysterical Hemianæsthesia treated by the Progressive Inducement of Sensibility ("résensibilisation progressive"); Direct Proof of the Cortical Localisation of Visceral Centres; Principle of a Mechanical Treatment of Hysteria. (*Arch. de Neur., March*, 1900.) *Vial.*

Case of a girl, Zoë, æt. 22 years, hysterical, not subject to hysterical attacks, but presenting complete right hemianæsthesia, with clavus, narrowing of the right visual field, sensation of globus and anorexia. The patient in a somnambulistic state was treated (with recovery) according to the method advocated by M. P. Sollier, and described at length in his work on hysteria. The author professes to have noted the same phenomena in the course of treatment, and comes to the same conclusions,—as, for example, in localising the cerebral centre for the viscera, etc. etc. In this case "the most striking phenomenon is that of the regression and progression of the personality; the crowning of the synthesis of the ego takes place at the end of the progression, and Zoë conveys it by the utterance of this picturesque expression: 'I feel that all my limbs become stuck together'" (*sic!*).

H. J. MACEVOY.

Hysterical Polyuria and Pollakiuria [*Polyurie et pollakiurie hystérique*]. (*Arch. de Neur., March*, 1900.) *Abadie, J.*

A case is described of a man, æt. 43 years, cured by indirect suggestion, without any apparent lesion of his urinary apparatus except some urethral spasm, the chemical composition of the urine being normal; he micturated twenty to thirty times in the twenty-four hours, and passed large quantities of urine. Born of a hysterical mother, he was himself hysterical, with such stigmata as zones of cutaneous and mucous hyperæsthesia, loss of taste and smell, concentric narrowing of the visual fields, and almost complete absence of pharyngeal reflex. The pollakiuria presented by this patient was more obstinate and more obvious than is usual in these cases; not only was there frequency of micturition (simple pollakiuria, or pollakiuria proper), but also an imperious desire to satisfy the act. The cure by indirect suggestion consisted in the daily administration of pills of methylene blue. In another case mentioned—a hysterical woman—the symptoms of polyuria, simple pollakiuria, and imperious pollakiuria, with identical characteristics to the above, were induced by hypnotic suggestion.

Cases of simple irritable bladder, unaccompanied by any signs of organic lesions, are, no doubt, as a rule cases of this imperious pollakiuria, and probably mostly hysterical. Suggestion, direct or indirect, appears to afford a hope of cure. H. J. MACEVOY.

A Case of Hysterical Anorexia [*Un cas d'anorexie hystérique*]. (*Nouv. Icon. de la Salpt., Jan., Feb.*, 1900.) *Gasne, G.*

A girl æt. 16 years, of indifferent family history, who had had hysterical attacks, hysterical paraplegia, and amaurosis, was admitted

to the Salpêtrière in an extremely emaciated condition, weighing 27½ kilog. (plates shown give one a vivid idea of her skeleton-like appearance). Beyond some tenderness of the breasts and a marked diminution of the pharyngeal reflex, there were no physical signs of disease. Immediately after her admission the appetite returned, she ate regularly, and quickly increased in weight, gaining over 25 lbs. A letter is appended which the patient wrote to her physician after recovery, describing among other things the subterfuges to which she had resort during her illness in order not to eat, and in which she says, "I did not feel in any way the desire to eat," stamping her case as probably one of *true* hysterical anorexia. Gasne dwells on the extreme importance of isolation in the treatment of these cases; they recover as if by enchantment when separated from their home influences; and he mentions another interesting case in point. H. J. MACEVOY.

A Few Cases of Unconscious Wanderings [*Quelques cas de fugues inconscientes*]. (*Rev. de l'Hyp., May*, 1900.) *Raymond.*

Many of the cases which are now called hysterical wanderings were formerly classified as epileptic. Raymond characterises as epileptic sudden wanderings of *short* duration. Hysterical wanderings ("fugues"), on the contrary, may take weeks or even months, and are not recognised by those who come in contact with the patient or speak to him. Consecutive amnesia is complete in the two cases. The first case ecorded is that of a man who a few years ago had a wandering lasting eight days, during which he went from Nancy to Brussels. On December 15th, 1899, he had an attack lasting eleven hours; on the 16th, one lasting three days, during which he went to his brother's house, slept and dined there without exciting suspicion, etc. In this case a nervous heredity prepared the soil, intermittent fever weakened his powers of resistance, and the exciting cause of the neurosis was overwork. As a rule, hypnotism helps to reveal the course of these wanderings, and is a means of cure; but this patient is not hypnotisable. The second case is that of a girl æt. 16 years, hasty tempered and difficult to manage. At the age of fourteen years, she had her first attack of wandering. Her last, quite recently, lasted four weeks. She is hysterical and not vicious. Raymond believes hypnotism will cure her. H. J. MACEVOY.

A Case of Hysterical Œdema probably due to Auto-suggestion [*Un cas d'œdème hystérique; rôle de l'auto-suggestion*]. (*Rev. de l'Hyp., May*, 1900.) *Combemale and Camus.*

On January 23rd, 1900, a girl, æt. 18 years, was carried to the Hôpital de la Charité. Her legs were said to have suddenly given way that morning. It was found that both legs were œdematous from the level of the tubercle of the tibialis anticus to the level of the malleoli; the œdema was hard, not pitting on pressure, and very painful; the skin over it was bright red with scattered purplish patches. Her heredity was not good (father alcoholic, etc.). She herself had always been emotional, over-sensitive, and dreams a good

deal. Ten days before her admission to the hospital she had been a good deal affected by the sight of a friend at work who developed painful œdema of one wrist. She began to feel pains in the calves, compelling her to sit down frequently; these disappeared after three days, and then suddenly on the morning of January 23rd, shortly after reaching her workshop, her legs gave way as mentioned above.

H. J. MACEVOY.

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5. Pathology of Insanity.

The Pathological Anatomy of Idiocy. (*Rpt. XIII Cong. Internat. de Méd., Sect. de Psychiat.*) *Shuttleworth, G. E., and Beach, F.*

The report first treats the subject historically. Hippocrates and Pliny speak of the Macrocephali, who used to produce deformities of the head artificially. Tulpius associated hydrocephalus with idiocy. Later, Willis describes and figures an imbecilic brain one fifth the size of that of an ordinary man. Pinel records two cases of microcephalus, and Gall and Spurzheim publish plates illustrating not only microcephali, but also hydrocephali—one case of cretinism and an imbecile child. So far only size is dealt with. As regards *form*, Meckel, in 1760, noticed bony deformities. With respect to *conformation*, Tulpius remarks that the convolutions are less numerous; and Malacavne states that according to the degree of intelligence the lamellæ of the cerebellum are increased and diminished. As regards *organisation*, Meckel notes the dryness and hardness of the cerebral substance in idiots, and Bonnet and Haller report tumour and ulceration of the brain. Finally, Esquinol noticed the smallness, compactness, and atrophic condition of the convolutions, and the small capacity of the lateral ventricles.

Leaving the historical aspect, the authors note the current opinion that pathology and classification are mutually independent, and they classify idiocy as follows, viz.:

I. Congenital formative defects—1. Microcephalus. 2. Hydrocephalus. 3. Scaphocephalus. 4. Mongol imperfections of osseous, cutaneous, mucous, and, in some cases, cardiac tissues. 5. Neuropathic genetous cases. 6. Amaurotic genetous cases. 7. Sporadic cretinism. 8. Partial local defects.

II. Developmental cases—1. Eclampsic cases. 2. Epileptic case. 3. Syphilitic and juvenile general paralytic cases. 4. Paralytic cases.

III. Acquired cases—1. Traumatic. 2. Post-febrile inflammatory cases. 3. Sclerotic idiocy.

The same subject is reported upon by Professor O. Micrzejewski and Dr. Bourneville. The latter classifies idiocy, for the most part, according to coarse pathological lesions, and the former bases his classification upon a study of the more minute structures of the brain and from embryology.

J. R. LORD.

The Pathology of Tabes in Relation to General Paralysis: a Discussion at the Pathological Society of London. (Brit. Med. Journ., November 25th, December 9th, 23rd, 1899.) Mott, Bruce, Buzzard, Gowers, Savage, Ferrier, Hale White, Beevor, Head, and others.

Dr. Mott opened the discussion by pointing out that the question had arisen as to whether tabes could be looked upon as the same morbid process as general paralysis, only affecting a different part of the nervous system. It was recognised that (1) tabes might begin with mental symptoms, or such might form crises; (2) tabetic symptoms may occur in general paralysis, and atrophy and sclerosis of the posterior columns and roots may be found post mortem; and (3) cases of tabes may afterwards develop well-marked symptoms of general paralysis. He and Sherrington had found symptoms and morbid changes of general paralysis in seven out of eight cases of tabes dying in asylums. Ætiologically, the two conditions were closely associated by syphilis. Various symptoms characteristic of tabes he had seen in general paralysis, such as grey atrophy, ocular paralysis, perforating ulcers, etc. Further, the most important physical sign in general paralysis, as well as in tabes, was reflex iridoplegia, only met otherwise in syphilitic brain disease. "He considered that the pathological process in the two diseases was identical, namely, a primary progressive degeneration of the neuron, with secondary sclerosis and inflammation or subinflammatory condition in the vessels or adjacent membranes, due to irritation caused by the products of degeneration, and a formative proliferation of the glia elements." In tabes, the process affected almost exclusively the posterior columns, corresponding, when complete, to the effects of section of the posterior roots. One of the most marked effects of the latter, was loss of muscular tonus—an important factor in the production of ataxy. Dr. Mott showed specimens from cases showing changes typical of tabes, and also, to a more or less marked degree, typical of general paralysis.

Dr. Bruce discussed the question from a histological standpoint, maintaining that the lesions in ataxia were not due to a primary sclerosis affecting neuroglia, but that the disease commenced in the continuation of the posterior nerve-roots within the spinal cord, affecting exogenous fibres, the endogenous escaping. He did not support Marie's hypothesis that the degeneration was due to the nutritional changes in the cells of the posterior root ganglions. He adopted the view of Obersteiner and others that the nutritional powers of the ganglion cells were cut off by pressure upon the fibres at their entrance into the spinal cord by such causes as meningeal thickening, which might be syphilitic or otherwise.

Dr. Buzzard contributed some remarks from clinical experience. He could not call to mind examples of cases in which tabes began by mental symptoms. He agreed with Dr. Mott as regards the part played by syphilis in general paralysis and tabes, and also with the latter's statement of the pathological process, but he thought that in some cases (frequently in insular sclerosis) the primary degeneration and those stated to be secondary changes may go on side by side.

Sir W. Gowers agreed with Dr. Mott regarding the importance of syphilis as an ætiological factor. He confirmed Dr. Buzzard's statement that the symptoms of tabes usually precede those of general paralysis

when the two conditions are combined. He failed to support Dr. Bruce's remarks on the extra-neural commencement of the degenerative process, since it failed entirely to account for some of the most remarkable facts of tabes. He did not think that a common causation created identity of diseases which differed so widely in symptoms as the cerebral form of general paralysis and the pure form of tabes. "If so, they ought to regard a scrofulous tumour of the brain and pulmonary phthisis as one disease." He had long maintained that the essential secret of these degenerations was the lowered durability of the nerve elements allowing some other factor to induce a premature decay. "Disease" was commonly connected with an aggregation of symptoms rather than with their discerned causation.

Dr. Savage remarked that similar results did not necessarily mean similar causes. Clinically, toxic agents, as a rule, affected similar parts and tissues in similar ways. "They saw all the symptoms of general paralysis of the insane in the various stages of alcoholic intoxication; and with lead, and even with influenza, they saw similar symptoms." Syphilis was associated in the production of both general paralysis and tabes. He recognised that tabetic symptoms frequently preceded those of general paralysis by years, but he must also say that he had seen a good number of cases of tabes and insanity which did not develop general paralysis. He had seen also acute maniacal attacks in tabes, and taught that any one symptom of tabes might give rise to insane delusions. He gave his experience of tabetic symptoms in general paralysis, male and female, and noted their rarity in the latter. It might be fanciful, but it had struck him that there might be more than one tabes. "Was it possible that there might be at the same time a double process going on in the highest cortical centres, and also in the cord, to which the tabes might to some extent be secondary?" He was not convinced that general paralysis and ataxia were the same, though they probably had similar causes and results. He agreed with Dr. Mott that degeneration, followed by secondary inflammation, were parts of the diseased process in both. He thought the chief cause toxic, and that toxine most commonly syphilis, though he believed that an auto-intoxication from acute delirium might be the origin in some cases.

Dr. Ferrier said that his experience led him to the same conclusions as Dr. Mott. He thought that civilisation was comparatively unimportant when compared with syphilisation. He rather, if anything, because of the absence of pain, was inclined to go against the primary vascular and interstitial origin.

Dr. Hale White had for some years taught the same views as Dr. Mott had expressed.

Dr. Beevor stated that "he considered that general paralysis and tabes were dependent very largely, if not entirely, on the action of syphilis on the nervous system; but as it seemed to be the exception rather than the rule for tabes to be followed by general paralysis, he thought that until in the majority of cases of tabes changes in the cerebral cortex were found he would not like to look upon them as two separate diseases occurring in the same person at the same time, and he thought that the prognosis of tabes would have to be con-

sidered more unfavourable if the majority of cases were liable to become general paralytics."

Dr. Head gave some highly interesting and important points regarding the structure of the posterior nerve-roots and ganglions in the different levels of the cord and the destination of the fibres, the result of work not yet concluded or published. He finally gave adhesion to Dr. Mott's views that both tabes and general paralysis were parasyphilitic affections, identical processes affecting different portions of the nervous system.

Other speakers followed, and Dr. Mott replied. J. R. LORD.

The Ætiology of General Paralysis (*Allgem. Zeits. f. Psychiat., B. lvi, H.* 6, 1899.) *Sprengeler.*

Dr. Sprengeler, in a paper of 35 pages, gives the results of a laborious statistical inquiry into the causes of this malady. His observations were made at the asylum at Wehnen, near Göttingen, upon 337 paralytics, 295 of whom were men, and 42 women. He found the proportion of male to female paralytics to be about 7 to 1. Most of the cases occurred about the thirty-sixth to the fortieth year of life. The average duration of the disease was two years and eight months; about 74 *per cent.* of his patients died in the first three years. With women, general paralysis took a slower course, the average duration being about three years and five and a half months. The duration of the disease was the same whether it occurred at an early or late period of life. He gives statistics, the condensed results of many (46) observers, as to the occurrence of syphilis as an ætiological factor in general paralysis.

[Excluding Voisin and Nicoulan, who state that the percentage is 1·6 and 3·96 respectively, twenty of these observers arrive at percentages between 12 and 50·8; the remainder publish figures varying from 53 to 93 *per cent.* The total number of cases tabulated is 8731, 3624 being syphilitic.]

Dr. Sprengeler sums up thus:—"I must recognise syphilis as by far the most important cause of general paralysis whether it acts directly or indirectly, but it is not the only cause. I should give the second place to alcoholic intoxication, and the third to heredity. Besides these, injuries to the head, fright, wretchedness and want, sexual excesses and lead poisoning, insolation and radiated heat, may also, either alone or conjoined, become causes of general paralysis. I cannot find that over-great mental exertion alone can induce the disease." General paralysis being the most specific of all forms of insanity, it seems incongruous that it should be caused by influences so diverse as syphilis and fright. Onanism is also given as a cause in one place.

Writers on insanity are stated to be far from agreed as to the part to be assigned to heredity in the causation of this disease. Clouston and Meynert give little; Krafft-Ebing found that from 15 to 20 *per cent.* of his cases had hereditary tendencies; Muller gives as much as 46·2 *per cent.* with male patients and 64·5 with females, and Kraepelin 61 *per cent.*

Näcke thus states the predisposing causes of general paralysis:—A certain general born constitution of the brain, the particular nature of

which is unknown to us; further, heredity in the narrow and wider sense; these prepare the ground which is further acted on by syphilis, so that through the influence of several exciting causes, especially emotional disturbance, the disease is brought out. The congenital brain constitution seems to be the condition *sine quâ non*.

W. W. IRELAND.

On the Infective Origin of Acute Delirium [*Sulla origine infettiva del delirio acuto*]. (*Ann. di Nervol., fasc.* 1—11, 1899.) *Bianchi and Piccinino.*

This is the third communication which the authors have made on this subject since 1893. In the present paper, two more cases of very acute fatal delirium with the bacteriological examinations are given. The first case was admitted on February 26th, 1896: the symptoms were those of acute delirious mania with marked motor excitement and with hallucinations; on February 29th temperature 39·2°, respirations 44, pulse 136, arythmic, tossing the head, tremors of the lips so that her words could not be made out, tongue dry and furred, breath smelt of acetone; sensibility was much impaired; pupils small and fixed; abdomen tumid, meteoric. About one gramme of blood was withdrawn from the arm for the cultures. The temperature rose subsequently to 40·2°, and she gradually collapsed and died on March 4th. The second case was admitted on October 1st, 1898. There was intense motor excitement, marked incoherence in speech; rectal temperature 37°; pulse small, feeble, and rapid; abdomen tumid. She became gradually unconscious, pupils rigid, breath smelt of acetone, tremors of the muscles, collapse, and death occurred on October 3rd. The post-mortem examination showed marked post-mortem rigidity. The cerebral meninges were slightly anæmic—small collections of subarachnoid fluid, grey matter pale rose-colour, white somewhat soft, heart normal, lungs slight hypostasis, spleen softened; other organs were practically normal. Cultures were made from the blood and also from the subarachnoid fluid. They showed a bacillus either isolated or in groups of two or three, or united in chains. They stain by all aniline dyes and by Gram's method, but the best result is by Ziehl's fluid: they do not spore. This is the organism they described in their previous papers. Injections from these cultures proved fatal to rabbits, an enormous infiltration of the bacilli occurring in the meninges. The authors state that "the whole morbid picture, the rapidly fatal course of the disease, the presence in the blood of large numbers of bacilli, the strong virulence of the cultures, and the infiltration by the bacilli of the meninges in animals dead from inoculation, constitute an accumulation of facts of great value in the genesis and pathology of acute delirium." J. R. GILMOUR.

On the Elimination of the Ethereal Sulphates by the Urine in Epilepsy and in Sitiophobia [*Sulla eliminazione degli eteri solforici per le urine negli epilettici e nei sitofobi*]. (*Ann. di Nervol., fasc.* 1—11, 1899.) *Galante and Savini.*

The ethereal sulphates in the urine (compounds of sulphuric acid with organic radicals, of which the best known are indol, skatol, and

phenol) derive their importance from the fact that they form an excellent index of the degree of intestinal putrefaction and absorption. The authors estimated them by Salkowsky's method in the urine of four epileptics, and in three cases of sitiophobia. The epileptic cases were specially chosen from cases showing clinically gastro-intestinal disorder. With the approach of an epileptic fit or of the disturbance which may replace it, the quantity of the ethereal sulphates was increased, reaching its highest point with the onset of the fit, returning slowly in some cases, immediately in others, to a normal degree of elimination. The cases of sitiophobia were associated with marked hallucinations in one case, with melancholia in another, and in the third with delusions of persecution and poisoning. The authors, taking into consideration the composition of the diet on which they were forcibly fed, come to the conclusion that there is in these cases disturbance of intestinal function and especially putrefaction of the albuminoids, as evidenced by the increase of the sulphates excreted. Whenever food was taken spontaneously, the tables show a marked decrease of these decomposition products. J. R. GILMOUR.

Alkalinity of the Blood in Certain Mental Diseases [*L' alcalinità del sangue in alcune malattie mentali*]. (*Riv. di Patol. nerv. e ment., July*, 1899.) *Lambranzi, R.*

The writer has examined the blood in several groups of cases. The results obtained were that the alkalinity varied within physiological limits in hypochondria (3 cases), in adolescent insanity (6 cases), in senile insanity (5 cases), in hysteria (3 cases), and in imbecility (10 cases). In alternating cases (9) the alkalinity varied in the two periods, being lower during the state of excitement, especially when accompanied by marked motor signs, but within physiological range. The alkalinity was reduced in seven cases of general paralysis. It was also probably below normal in a case of myxœdema with imbecility. The most interesting cases were the epileptics (10 cases). In them, the author found that the alkalinity of the blood was reduced during the convulsion, and also for a short period both before and after it. He considers that, in epilepsy and general paralysis, the diminution is due to substances in direct relation to the disease, these being periodic in the former class, and permanent in the latter. J. R. GILMOUR.

Brain of an Epileptic Idiot [*Cerveau d'idiote épileptique*]. (*Journ. de Méd. de Bord., Jan.* 7, 1900.) *Gentes.*

The clinical record of this case is incomplete. The patient, however, had numerous signs of degeneration (malformation of the pinna, arched palate, irregular dentition, etc.), and she suffered from typical epileptic fits.

The brain was asymmetrical, the left half being smaller than the right; the lumen of the cerebral arteries was narrower on the left side than on the right, and there was evidence of premature synostosis of the bones on the left side of the cranial vault. In addition to this there was a subarachnoid cyst, the size of a hen's egg, situated at the postero-superior extremity of the left fissure of Sylvius.

The author discusses the question whether the maldevelopment of the left cerebral hemisphere is due to the left premature synostosis, or to the pressure of the cyst, or to the deficient nutrition consequent on the smallness of the left cerebral arteries. W. H. B. STODDART.

6. Treatment of Insanity.

The Institute of Psychiatry at Reggio [*L'Institut Psychiatrique de Reggio*]. (*Rev. de Psychiat., No.* 5, 1900.) *Vaschide, N.*

Attention has been especially drawn to this institution recently by the celebration of the centenary of Lazzaro Spallanzani, the illustrious Italian biologist, with whose name it is henceforth to be associated. Vaschide gives a brief account of its interesting history and of its present magnificent scientific equipment. In the thirteenth century, as the Hospital of St. Lazarus, it was founded for lepers and lunatics; it became subsequently for a time a general infirmary, and in 1754 was reserved exclusively for lunatics. In the early part of this century, under Galloni, it was in this asylum that some of the earliest attempts were made to teach the insane on scientific principles—moral treatment. From 1871 onwards, its reputation becomes world-wide; in 1877 Prof. Tamburini became superintendent, and to him and his collaborators we owe numerous valuable contributions on experimental psychology and other subjects dealing with the insane. The laboratories are numerous and well appointed, and among the most interesting buildings are the museum of antiquities, with its collection of appliances which were formerly used for quieting lunatics (chains, collars, "cap of silence" [cuffie del silenzio], etc.), and the museum of psychiatric anthropology, which contains a fine collection of 1250 skulls of the insane. H. J. MACEVOY.

The Payment of Asylum Patients [*Krankenverdienst in der Irrenanstalt*]. (*Psychiat. Wochens., No.* 48, *Feb.* 24*th*, 1900.) *Berze, J.*

Dr. Berze, of the Kierling-Gugging Asylum, discusses the question of the remuneration of patients for work done by them during their detention under treatment. Most of the asylums in Lower Austria follow the practice introduced some thirty years ago in the Landes-Irrenanstalt in Vienna. By the statutes of that institution, it is provided that a record be kept of the nature and duration of each patient's labour, and that the director of the asylum fix the pay due thereto in accordance with a tariff established by the committee; this money is the property of the patient, and part of it may be utilised for the purchase of luxuries, etc., in the asylum, the balance being handed over to the patient or his guardians on his discharge. Dr. Berze describes in detail the application of this principle in Kierling-Gugging Asylum; labour records are kept, and submitted every month to the director, who decides the wage due to each patient and the proportion of that wage which may be at once disposed of by the patient. In the light of

his personal experience, the author discusses the advantages and disadvantages of the system. He thinks the consciousness that they are earning money and that they may aid their families is of excellent effect with certain patients; on the other hand, many of the insane, notably the imbeciles and the alcoholics, misunderstand their position —think they do not receive a just wage, and are discontented. On the whole, the author thinks that the drawbacks outweigh the advantages, and the same opinion seems to be entertained by the majority of asylum superintendents in Austria-Hungary and Germany. Dr. Berze suggests that the present system in Austria be abrogated, that working patients be rewarded, not by payment in money, but by special privileges, and that the money value of their labour, estimated as a whole and in accordance with the old standard, be assigned to a common fund for the relief of the necessitous relatives of patients and for the aid of the patients themselves on discharge. The distribution of this fund should be at the discretion of the asylum physician. This more communistic method would secure, among other advantages, that help should be given to the cases that most need it, viz. acute curable patients, who on the old individualist system would receive little, as they are precisely the cases least capable of performing remunerative work.

In Kierling-Gugging the experiment of letting the patients hire out as labourers has also been tried, but has been abandoned owing to the complaints of unfair competition with free labour.

W. C. SULLIVAN.

The Boarding-out of Lunatics in Dun-sur-Auron [*Die Familienpflege in Dun-sur-Auron*]. (*Psychiat. Wochens.*, *No.* 1, 1900.) *Paetz.*

This is an interesting article on the subject. Full details of the housing and supervision of the patients are given, with a general description of the whole system. This has been in actual work since 1892, and in March, 1899, some 700 patients were under treatment in Dun Levet, and the surrounding districts. Up to the present, women only have been thus cared for. The no-restraint system has throughout been maintained. Senile dementia is the commonest form of insanity among the patients, and with the organic dementias constitutes some 45 per cent. of all the cases. Patients with epileptiform seizures, with contractures, and even with hemiplegia are successfully cared for in this way. It is interesting to learn also that suicidal cases can also be treated on this plan, and, indeed, that the average of suicides is rather under that of ordinary asylum statistics. HARRINGTON SAINSBURY.

Epilepsy modified by Treatment and Environment, with some Notes of Two Hundred Cases. (*Alien. and Neur.*, *Jan.*, 1900.) *Barr, M. W.*

Dr. Barr is very sceptical as to ultimate positive cure of idiopathic epilepsy, though he gives the statistics of the Bielefeld and Craig colonies, which record some 6 to 7 per cent. of cures. He is not impressed by the results of surgical interference. Of the powers to

ameliorate the condition of epileptics he has no doubt, and whilst laying stress on the great value of the colony system, of which Bielefeld is the most striking instance, he does not despise drugs, among which he selects bromides combined with arsenic as most effective. Solanum carolinense, Eupatorium perfoliatum, and hydrastin have failed in his hands to give any good results. Nitrate of silver proved beneficial in one case for a time. In anæmic cases, he finds arsenic combined with iron and bromide efficacious. HARRINGTON SAINSBURY.

The Bromide Sleep: a New Departure in the Treatment of Acute Mania. (*Brit. Med. Journ., Jan. 20th*, 1900.) *Macleod, N.*

In 1897, and again in 1899, Dr. Macleod drew attention to a new method of employing the bromides as sedatives. His method might be described as that of the massive dose, two drachms of the drug being given in half a tumbler of water every two hours (during the day) till an ounce is given. On the second day a similar amount is given in the same way, and this may suffice to induce a sleep lasting from five to nine days. During this sleep the patient is not so deeply unconscious that he cannot be roused to micturate, or for the bowels to act, or for the administration of food; but left to himself he would starve, and the organic functions work unnoticed. Feeding must be rigorously maintained, and a tumblerful of milk every two hours up to seven tumblerfuls will suffice to maintain nutrition. Following the sleep is a gradual return of consciousness; this takes some fourteen days, the whole treatment lasting some twenty-one to twenty-four days.

HARRINGTON SAINSBURY.

Psychical Treatment of a Case of Delusional Insanity—Zwangsirresein [*Traitement psychique d'un cas de folie délirante*]. (*Rev. d'Hyp., May*, 1900.) *Städemann, H.*

The case related is that of a man, æt. 30 years, without nervous heredity. As a boy, he was given to speculations, and much troubled concerning the nature of the deep problems of life; but as time passed he became tormented with trivial thoughts—the fate of a fly in his room, of a bit of match on the floor, of a spot of grease dropped from a candle, etc., etc.—amounting to painful obsessions. A cure rapidly followed treatment by hypnotic suggestion—two daily *séances* for fourteen days. Fifteen months later he remained well.

H. J. MACEVOY.

Hysterical Polyuria and Suggestion [*La polyurie hystérique et la suggestion*]. (*Rev. d'Hyp., May*, 1900.) *Souques.*

Although rare, hysterical polyuria is occasionally met with. The amount of urine passed may be four, five, eight—up to twenty-five litres a day. Its pathogeny is still obscure. The diagnosis is easy, for although in a given case hysterical stigmata may be absent, the polyuria is of hysterical origin, when, as Babinski has shown, it may be made to vary by suggestion; hence the line of treatment is clearly indicated

—either hypnotic suggestion or indirect suggestion—by the administration of some drug. That ergot, for instance, acts in this way is illustrated by the case of a man whose polyuria improved rapidly when this drug was administered. On a subsequent occasion, when the polyuria relapsed, ergot was prescribed again, but a little bicarbonate of soda given instead. The same improvement took place as before.

H. J. MACEVOY.

Treatment of the Insane [*Les divers modes d'assistance des aliénés devant la commission d'études au Conseil-Général de la Seine*]. (*Rev. de Psychiat., No.* 3, 1900.) *Marie, A.*

This paper contains the pith of the suggestions made by a commission appointed by the General Council of the Seine to study and report upon the questions of treatment of the insane. This commission had to consider and report upon such points as observation hospitals for acute cases; over-crowding of chronic cases, and means of relieving it; treatment of vicious and criminal insane; treatment of epileptics; isolation of alcoholics, etc., etc. They recommend, among other things, the creation of a hospital for the observation and treatment of acute cases; for chronic cases chronic blocks, farms, home treatment, etc.; there are suggestions for the treatment of the various classes of alcoholics, etc., etc. Embodying the results of their visits to asylums at home and abroad, this report is a very important document, and will, no doubt, lead to decided steps in the direction of improving the conditions and treatment of cases of mental disease in the Department of the Seine. It is a most comprehensive report. H. J. MACEVOY.

An Address on the Insane and their Treatment. (*Brit. Med. Journ., Jan. 20th*, 1900.) *Spence, J. B.*

The address, delivered before the Staffordshire branch of the British Medical Association, gives an interesting historical sketch of the treatment of the insane from remote periods up to the present. But small advance was made up to the eighteenth century, at the end of which the labours of Pinel and Tuke, followed later in this country by the efforts of Lord Ashley (subsequently Lord Shaftesbury), initiated a new departure. The advances of late years are then dwelt upon—and they are undoubted, but leave something to be desired; and Dr. Spence does not fail to comment on the fact that in 1845, when the office of Commissioner in Lunacy was first instituted, the visiting staff of the Commission was of exactly the same numerical strength as at the present moment, though the number of the officially insane in 1845—viz. 20,893—has in January, 1900, advanced to 81,258 in asylums alone. On the importance of the attachment of pathological departments to the larger asylums, now being recognised, Dr. Spence lays stress, as also upon the establishment of clinics at asylums adjacent to large towns and at all the larger general hospitals. Finally, Dr. Spence urges that the influence of members of the profession should be enlisted in order to facilitate the passing of the Act to amend the Lunacy Laws, introduced by the Lord Chancellor in the last session of Parliament. One clause

in this Act he is specially desirous of securing, viz. that which would legalise the placing of single patients for six months under the care of medical practitioners without certification, though with notification to the Commissioners. The clause is designed to meet those early cases of mental disturbance which may never develop, and avoid for them the stigma of the certificate. HARRINGTON SAINSBURY.

Balneological Treatment of Nervous Diseases: Discussion at the British Balneological Society. (*Brit. Med. Jonrn., Feb. 10th*, 1900.)

Dr. Risien Russell laid stress on the value of baths in certain troublesome symptoms of some chronic spinal cord affections. In acute nervous troubles he instanced peripheral neuritis as specially amenable. In neurasthenia he drew attention to the two forms of this disease, in the one of which stimulating baths, in the other indifferent baths were called for.

Dr. Karl Grube, of Neuemahr, was struck by the relatively small attention paid in England to the bath treatment of nervous affections, neuritis in particular being strikingly benefited by such. He urged the importance of avoiding extreme temperatures, indifferent baths—*i. e.* of a temperature of about blood-heat—being most beneficial. The nature of the chemical constituents of the bath waters was of very secondary importance. HARRINGTON SAINSBURY.

The Treatment of Neurasthenia. (*Glas. Med. Journ., Oct.*, 1899.) *Somerville, W. F.*

The usual essentials of the treatment of the neurasthenic by isolation, rest in bed, massage, and careful dieting are insisted upon. Dr. Somerville judges it a mistake to over-feed the patients; but when he says that, "speaking generally, it is found that the patient can soon be induced to take six to eight good meals a day, together with three or four pints of milk," it will be admitted that the scale is liberal enough. Massage is begun first as effleurage, and then is made more forcible and the *séance* prolonged.

As a detail of some importance, it is advised that the patient should proceed to take a holiday in the country, at the end of the cure, before returning to the home circle.

HARRINGTON SAINSBURY.

Treatment of Epilepsy by Bromides and Hypochlorisation [*Traitement de l'épilepsie par les bromures et l'hypochloruration*]. (*Rev. de Psychiat., Jan.*, 1900.) *Toulouse, E.*

This represents essentially a new departure in therapeutics: it is based first upon the chemical relationship between bromides and chlorides, which is such that the former appear to be capable of replacing the latter to a certain extent in the tissues; and next it is based upon the well-known fact that the organism can adapt itself to a diet with a minimum or maximum of sodium chloride. The diet which demands much salt is the vegetable one, whilst an animal diet, and more particularly a milk diet, makes much less call for sodium

chloride. Dr. Toulouse then gives a diet which he has found both acceptable and well borne; it consists of milk, 1 litre; potatoes, 300 grms.; eggs, 2; coffee, 10 grms.; beef, 300 grms.; flour, 200 grms.; sugar, 50 grms.; butter, 40 grms. This fare contains about 2·2 grms. of chloride of sodium. His theory is that upon this diet, *minimal* as to salt, the cells of the tissues acquire, so to speak, an appetite for or readiness to absorb salt if presented, and that if sodium bromide be presented instead of sodium chloride the appetite will be to some extent satisfied by this kindred salt; in other words, he first starves the cell as to sodium chloride, and then supplies sodium bromide. The theory is a plausible one, and the results of the treatment of twenty cases are sufficiently striking to make further investigation very desirable. So far as they go his cases seem to show that on the above special diet patients become more susceptible to the action of bromides.

HARRINGTON SAINSBURY.

Curability of Epilepsy, and How it may be accomplished. (*Medicine, Feb.*, 1900.) *Spratling, W. P.*

The writer sums up under eleven heads—the practice in vogue at the Craig Colony. In essence it amounts to a careful hygiene, abstinence from alcohol, and a common-sense avoidance of anything in diet or occupation which puts a strain upon the patient. Eleven heads were scarcely required to evolve this wisdom.

Due observance of the above principles and a "sufficient time" will, as Dr. Spratling has learned by experience, cure from 6 to 8 per cent. of all cases. What the "sufficient time" is we are not told, but do such results warrant the title of the paper, and is it on the grounds of this success that the bromides have been rejected for the last three years at Craig Colony? HARRINGTON SAINSBURY.

On the Action of some Morphine Derivatives [*Ueber die Wirkung einiger Morphinderiviate und ihre therapeutischen Indicationen*]. (*Monats. f. Psychiat. u. Neur., B. vii, H.* 1, 1900.) *Winternitz, H.*

Reference is made to peronin (benzyl morphine), dionin (ethyl morphine), and heroin (diacetyl morphine), and these are contrasted with codeine (methyl morphine). Peronin and dionin resemble codein in not depressing respiratory activity whilst lessening the irritability of the respiratory tract; at the same time they exert a mild narcotic action. Peronin has no probable future before it because, without being more active, it is less soluble than dionin, and is of more unpleasant taste. Dionin is stated to be slightly more active than codeine, and more persistent in its effect.

Heroin resembles morphine but is much more toxic, and it is doubtful whether it possesses any real advantages over morphine.

HARRINGTON SAINSBURY.

7. Sociology.

The Correlation of Sexual Function with Insanity and Crime. (*Scalpel, Feb.*, 1900.) *Macnaughton-Jones, H.*

This is a report of Dr. Macnaughton-Jones' address to the British Gynæcological Society at the close of his year of office as president. The writer points out that the present state of our knowledge only admits of very tentative opinions on the relation of sexual function to psychic processes. The first point dealt with is the influence of menstruation on such processes; the magnitude of the alterations in the entire genital tract at each menstrual period is indicated, and note is taken of recent researches into the effects of ovarian secretion on general and nervous metabolism, especially as illustrated in the pathology of osteomalacia. Having touched on the various minor neuroses which appear to be reflex results of genital disorders, the author discusses briefly the relation of such disorders to the graver neuroses and to mental disease. In this connection, he refers to the published clinical evidence (chiefly by American authors) of insanity and epilepsy associated with pelvic disease and disappearing after the removal of the diseased organs. *Per contra*, however, attention is drawn to the large number of cases of insanity with pelvic disease where operation produces no good effect on the mental symptoms, and two personal observations of this nature are mentioned. The author leans to the opinion—shared by most of the leading British alienists, whom he quotes—that true sexual insanity is very rare. The experience of a number of operators on this point and on the cognate question of post-operative insanity is then summarised. The general conclusion to be drawn from the available facts would appear to be that disease of the generative organs can produce insanity only in predisposed subjects; and that it is in the same class of subjects that operative interference is likely to cause mental disorder.

The paper is an interesting review of the present state of the question treated in somewhat general terms, as is inevitable from the aim and occasion of the address. W. C. SULLIVAN.

Sexual Inversion [*Sulla inversione sessuale*]. (*Arch. di Psichiat., vol. xxi, fasc.* 3.) *Celesia, P.*

Dr. Celesia opens his paper with a brief account of gynæcomastia, selecting this condition as a typical example of the inversion of somatic sexual characters. The rest of the essay is devoted to establishing an analogy between gynæcomastia and psychic inversion.

Ætiologically three varieties of gynæcomastia are to be distinguished; (*a*) congenital, (*b*) infective and traumatic, and (*c*) correlative. The origin of congenital gynæcomastia is discussed; the hypothesis of reversion to the type of an hermaphrodite ancestor is rejected in favour of the theory of exaggeration of the normal hereditary influence of the female parent. The condition is very much rarer in civilised than in savage races—a difference which might perhaps be explained through natural selection. With regard to acquired gynæcomastia, the temporary

enlargement of the breasts occurring sometimes in measles is mentioned as an example of the infective form, and a case of the traumatic variety is quoted from Laurent—a man of forty years old who, subsequent to a blow on the chest, developed feminine characters in the breasts coincident with testicular atrophy and loss of sexual desire; as bearing on this point, reference is made to Rörig's observation of the growth of horns on the female deer as the result of traumatism. Finally, correlative gynæcomastia is illustrated by the Mexican *mujerados*, in whom artificially induced atrophy of the testicles causes growth of the mammæ, which may even serve for lactation.

Turning to psychic inversion, the author would find in the congenital, or more properly hereditary homosexual tendency the analogy of congenital gynæcomastia, and would therefore assign such psychic inversion to excess of the hereditary influence of the parent of opposite sex. He notes that such cases may also show atavistic characters in the extreme ardour of the abnormal sexual impulse, its association with lust of cruelty, etc. Acquired psychic inversion, again, would be parallelled with acquired gynæcomastia; it would be due to the arousing, through environmental stimuli, of the homosexual tendencies existing in rudiment in all individuals, as the mammæ exist in rudiment in all males. This acquired form does not to the same extent dominate the individual; it does not even exclude always the persistence of the normal heterosexual tendencies. In the congenital inverts, on the contrary, the entire affective and æsthetic life is in harmony with the homosexual nature; this point the author develops in a discussion on homosexualism and artistic genius, suggesting that the abnormal combination of the feminine qualities of emotivity and intuition with masculine intelligence makes for genius in the sexual invert.

W. C. SULLIVAN.

Mazoclasm [*Mazoclastia*]. (*Arch. di Psichiat., vol. xxi, fasc.* 3.) *Mariani, C. E.*

This is a reference to a recent work of De Blasio (*Inciurmatori, maghi, e streghe di Benevento*), in which that author publishes, from the judicial records of the middle of the last century, an accusation brought against a priest of imposing mutilation of the breasts by the introduction of pins as a penance on the women frequenting his confessional. Mariani supposes that the priest suffered from a form of sexual perversion compounded of sadism and fetishism, and with De Blasio suggests the name of "mazoclastia" for the condition—a somewhat superfluous addition to the technical vocabulary.

W. C. SULLIVAN.

The Pathological Lie [*Ueber die krankhafte Lüge*]. (*Psychiat. Wochens., No.* 46, *Feb.* 10*th*, 1900.) *Ranniger.*

In this issue, Dr. Ranniger, of Sonnestein Asylum, concludes his study of the pathological lie, publishing another clinical observation bearing on the symptom. The patient, a man æt. 35, was mentally unstable from youth; at twenty-four years of age he had, apparently as a result of syphilis, an attack of apoplexy with left hemiplegia, followed by an out-

break of mania; eight years later he had another apoplectic attack of the same kind, but less severe. On admission to Sonnestein, his condition was one of mental debility without active symptoms; some weeks later, he became irritable and refractory, and developed a faculty for exuberant lying, manifested chiefly in letters to his relatives. In these letters, he made calumnious statements about his wife, his father, and other relations; he imparted false and disagreeable items of news about himself, and he referred to imaginary correspondents, from whose letters and his replies thereto he quoted freely. These fictions had not the character of an organised delirium—the patient's *rôle* in them, notably, was quite subsidiary; moreover he repeatedly admitted that his statements were deliberate falsehoods.

From his study of this, and the two cases reported in the first part of his paper, the author concludes that the pathological liar is sometimes quite aware of the falsity of his assertions. This is contrary to the opinion of Delbrück, who regarded the pathological lie as something between the ordinary lie and the delusion—as being, in fact, a lie which eventually deceived its author. Delbrück's and most other published cases were observed, however, *in foro*, where the patients had every motive to represent their fictions as delusional. Ranniger would still regard the lying of his patients as pathological, the characteristics of the morbid lie, in his opinion, being the exuberance of invention which marks it, and—of greater importance—the absence of all sense of shame on detection. Depending on defective development of the higher ethical conceptions and emotions, this symptom is always related to conditions of mental debility. When this debility is also marked in the intellectual sphere, and impairs the individual's judgment, the pathological lies are characteristically absurd.

W. C. SULLIVAN.

Religious Emblems as Homicidal Weapons in Religious Insanity [*Les objets de piété comme instruments de meurtre dans le délire religieux*]. (*Arch. de Neur., April*, 1900.) *Cullerre, A.*

This paper contains notes of three cases in which patients suffering from acute hallucinatory insanity with mystical delusions and homicidal impulses selected religious emblems as instruments of murder. The author points out that the suicides, homicides, and auto-mutilations occurring in religious insanity very often evidence a symbolic tendency in some of their details; and he would be disposed to regard the frequent use of the knife by such patients as a result of the ritual associations of that instrument. When the weapon employed is a devotional object, the mystical intent appears unquestionable. In the first observation, the patient, a woman æt. 38, in the course of a hallucinatory attack of the melancholic type, suffocated her baby by thrusting a statue of the Virgin into its mouth; the act was in obedience to an hallucinatory command. In the second case a man, æt. 29, suffering from hallucinations and delusions of damnation, and of persecution (especially by his parents), attempted, with much deliberation, to brain his father by striking him with a plaster statue of the Virgin. In the third observation a woman, æt 34, presenting melancholic symptoms

with occasional *raptus*, swallowed part of a metal crucifix, and died from intestinal hæmorrhage set up thereby. In this case the mystical significance of the act was placed beyond doubt by the patient's statement that she swallowed the crucifix to preserve her from the devil. All the patients were degenerates with hereditary taint.

W. C. SULLIVAN.

Partial Cure of a Congenital Criminal [*Una semi-guargione di criminale-nato*]. (*Arch. di Psichiat., vol. xx, fasc.* 4.) *Lombroso.*

This is a record of a case submitted for Lombroso's opinion by the Governor of Colorado, U.S.A. The criminal, Anthony Mooday, a boy æt. 11, murdered a man in order to steal his watch; when detected, he endeavoured to represent the occurrence as an accident. The paper gives a short autobiography of the criminal, some remarks on his behaviour in prison during the five years which have elapsed since the crime, and photographs (face and profile) of the boy at the time of the murder and at present. From these materials Lombroso feels justified in formulating the diagnosis and prognosis of the case, in accordance with the theories of the Italian school: the precocity of the crime, its motive and method, the facial and cranial characters of the murderer indicate that he is a "congenital criminal;" on the other hand, his good conduct in prison, and the improvement in his physiognomy which Lombroso discovers in the later photographs, show that he is capable of becoming an "honest man," but some peculiarities in his handwriting and a certain exaggerated vanity manifest in his autobiography prove that his recovery is imperfect—a characteristic example of Lombroso's methods.

W. C. SULLIVAN.

Opium-smokers [*Fumeurs et fumeuses d'opium*]. (*Rev. de l'Hyp., April*, 1900.) *Bérillon.*

Opium smoking seems to be on the increase in Paris; and, as the smoking is carried on in private apartments, those who reside in them become intoxicated by the fumes. This occurred in the case of a young woman who prepared her husband's pipes, so that a craving was induced. To obtain sleep she became dependent upon opium-smoking and the atmosphere created by another smoker. Very soon symptoms of intoxication appeared—hysterical convulsions, neurasthenic anxiety, paralysis of will, excessive timidity, etc. Treated by hypnotic suggestion, she gave up opium-smoking and got well. Bérillon observes incidentally that the cat of the house and a servant who lived in the room exhibited signs of craving after the opium-smoking had ceased there.

H. J. MACEVOY.

Physicians as Expert Witnesses. (*Med.-Legal Journ., vol. xvii, No.* 1, 1899.) *Wollman.*

These are comments on those defects of physicians as expert witnesses which most strike a practising lawyer in America. The critic's remedy for the evil of partisan expert evidence appears to be a suggestion from

the "trust" system: the medical societies of each locality are to combine and to select from their members a limited number, to whom alone they give authorisation to appear as expert witnesses.

W. C. SULLIVAN.

Corporal Punishments for Crime. (*Med.-Legal Journ., vol. xvii, No.* 1, 1899.) *Baldwin, Clark Bell, and others.*

This subject is discussed in a number of papers read before the Medico-Legal Society of New York. The opinions expressed for and against the application of whipping and castration to criminals are supported by considerations of the theological and sentimental order, with much appeal to political and colour feeling. The discussion is without scientific interest.

W. C. SULLIVAN.

8. Asylum Reports.

The Insane in India: Indian Asylum Reports for 1899. *Bombay Presidency.*

We have been favoured with a copy of the report of the Surgeon-General with the Government of Bombay to the Chief Secretary to Government, General Department. From it we propose to reproduce a number of paragraphs, avoiding all criticism, and contenting ourselves to allow the extracts to speak as to the present condition and administration of Indian asylums.

The only alterations carried out in the Ahmedabad Lunatic Asylum during the year under report were the addition of iron-barred doors to six cells for dangerous lunatics.

There was one case of escape from the Colába Lunatic Asylum on the night of July 17th, 1899. This man was a criminal lunatic, who was sent on June 27th, 1899, from the Ahmedabad Central Prison under sentence of transportation for life for murder. He was remarkable for the obstinacy with which he refused food, and had to be forcibly fed. He was from the very commencement under lock and key in a barred and bolted cell and gallery, and was never allowed into the grounds. It appears that by leverage he bent the bolt of the lock of his cell, reaching it easily through the bars of his door. He was thus free to enter the gallery, where there are eight windows, all closed by vertical iron bars an inch in diameter. He bent one of these iron bars sufficiently to wrench it from its socket; and, once in the grounds, escape was very easy, owing to constructional facilities. A police investigation of the circumstances was made, but without avail. Two night watchmen make the round of every part of the asylum every two hours, one for the European, and the other for the native sides. Just outside the gallery where this insane was confined, and commanding a full view of it, are stationed five warders, who take it in turn to be on guard for two hours each—to give water, help epileptic insanes, keep order, and generally to exercise supervision. These men, it should be observed, have to take their turn of night watching in addition to day duty.

Statement No. 7 gives the alleged causes of insanity among the

lunatics. Of the 1114 insanes confined in the asylums during the year under review, a cause is given in 536, and is unknown in 578. Of the known cases, 415 are attributed to physical and 121 to moral causes. Of the former, the use of intoxicating drugs and abuse of spirits accounted for 143 cases; previous attacks, 71; hereditary causes, 37; fever and epilepsy, 31 each; congenital disease, 24; masturbation, 18; syphilis, 12; injury to head, 11; destitution, 7; sunstroke, childbirth, and hypochondriacal causes, 5 each; sexual excess, 4; climate, 3; uterine disorder, 2; and gout, mental trouble, venereal sore producing mental depression, fall followed by fever, paralysis, and overwork, 1 each.

The following are the causes, as far as they can be ascertained, leading to insanity in persons charged with crimes of violence:

Ganga-smoking	10	Fever with persistent headache	1
Epilepsy	7	Puerperal fever	1
Hereditary	5	Plague	1
Grief	4	Disappointment	1
Spirit-drinking	3	Anger	1
Previous attacks	3	Injury to head	1
Religion	3	Unknown	38
Anxiety	2		
Fever	1		

In the existing social state of the people of India, information regarding the previous habits of patients and the probable causes of their insanity must, in my opinion, continue to be very incomplete. Many patients are mendicants, of whom little is known; and in the cases of those whose relatives are accessible it is often most difficult to obtain trustworthy particulars. Magistrates and police officers usually have the best opportunities of obtaining the histories of lunatics; but it would seem that either these are neglected, or inquiries into antecedents are neither closely nor intelligently pursued, or that the details are, for various reasons, unobtainable. The superintendents of asylums report that the information supplied by medical officers and magistrates is often scanty and defective; but, as regards the first-mentioned officials, they are in most instances largely dependent upon the judicial and police officers for the required histories. I have now taken steps with a view to secure in the future as full and accurate information as possible. As regards Indian hemp, I still maintain the opinion that it is a not infrequent cause of insanity, which, in the earlier attacks, takes the form of transient mania.

In calculating the percentage of the lunatics employed, those used as supplementary servants of the asylums—*i. e.* for works other than manufactures—have also been included in this statement; but the estimated value of their labour has not been taken into account. In this connection I beg to state, for the information of Government, that the importance of finding work for the lunatics is recognised. A large number of the patients are unfit for steady or profitable labour, and there is not only much difficulty in providing suitable occupation, but in some instances a want of skilled supervisors. At Colába, lunatics who are willing to be engaged in some occupation are allowed to work in the

factory attached to the asylum or on extra-mural work; but the European and Eurasian inmates have little suitable occupation in which they can be employed. In other asylums of this Presidency, gardening and cultivation are the chief occupations of those who are willing to work. The female inmates are for the most part employed in grinding corn. The unruly insanes are as much as possible induced to work by the knowledge that they will not otherwise be allowed to share in the diversions and other inducements provided. These consist in musical instruments, games, books, papers, periodicals, etc.; and native musicians are also occasionally engaged on the principal holidays, when extra diet, sweetmeats, etc, are supplied to the inmates, and are much appreciated. The sum expended for the recreation and amusement of the inmates during the year under review was Rs. 1380, as compared with Rs. 1460 in 1898.

Without considerable expenditure, and a more intelligent staff of attendants, it will not, in my opinion, be possible to largely increase remunerative work in the asylums in the Presidency. Few of the patients are fit for such occupation; but, if suitable establishments and plant were provided, milch cattle might be kept, and dairies opened at a few of the asylums, though they would have to compete with other dairy farms which now exist in most of the larger towns.

The question of diminishing restraint receives as much attention as possible from superintendents; but I agree with these officers in their opinion that, until a more educated and intelligent class of persons is attracted to asylum service by improved pay, there can be but little advance in the details of managing our insanes. The present wages of the attendants are those of the ordinary labourer, and consequently the warders are scarcely above this class. In the case of the majority of insanes in this country I believe that confinement within enclosures is necessitated not only by the want of capacity and attentiveness on the part of the warders, but by their own low intelligence, which renders a large proportion of the cases unmanageable and unimprovable. So that whilst I acknowledge that the confinement of the patients, as a whole, can be made less irksome by structural improvements, including more spacious exercise yards and by a more capable staff of attendants, I am unable to admit that excessive restraint is now imposed on refractory individuals, or that the liberty of the general body of inmates is seriously restricted in the asylums of this Presidency.

Some English, County, and Borough Asylums, 1899.

Bristol City Asylum.—Dr. Benham points out that the admission of old incurable cases is often a matter of necessity, since the magistrates, knowing that the imbecile wards of the local workhouses are blocked up and insufficient, feel bound to send them to the asylum. He refers to the recommendation of the Select Committee on Cottage Homes, one of which was that all pauper epileptics and imbeciles should be provided for in separate institutions outside the workhouse, which he thinks should be sanctioned by Parliament forthwith. The asylum had no less than sixteen, or nearly one half of the total number of male attendants called up as reservists.

Carmarthen.—The weekly charge was as low as *7s. 7d.* Dr. Goodall gives his Committee a broad and well-justified hint on the efficacy of pensions, which might well be repeated in other reports.

The frequent changing of attendants is most detrimental to the work of an asylum, prejudicial to the well-being and progress of the patients, and disheartening to those who are concerned with the work of training. To avoid such changes it is well worth while to accord solid advantages, calculated to keep the right class of attendants, to exercise a stabilising influence, and to bring home to them that they have a material stake in the welfare of the institution.

Cumberland and Westmoreland.—Dr Farquharson has lost no time in impressing on his Committee the views of the Association.

At a recent meeting of the Medico-Psychological Association a discussion was held on the necessity of isolating the phthisical insane, and there was a general concensus of opinion that this is a matter urgently requiring attention. The recommendation was made, and it seems an excellent one, that in connection with each asylum there should be erected a simple sanatorium, built, it may be of wood, to which all phthisical patients could be removed and be there treated, as far as possible, on open air principles. This seems a scheme well worthy of consideration at Garlands. At a date, probably not very remote, the further enlargement of this asylum will become necessary, and if, in the first place, a cheap sanatorium for phthisical patients were erected, it would for a considerable time relieve the pressure on the accommodation in the present buildings.

Of the fifteen general paralytics left on December 31st, no less than seven were females.

Derby Borough.—Dr. Macphail reports that in twelve relapsed cases the patients had, on the average, kept well for a period three years and ten months since discharge. He appears to have had a choice collection of undesirable admissions.

We have never admitted so many hopeless cases as regards the prospect of mental recovery. In only 42 of the 98 cases could the disease be looked upon as curable, so that recovery could reasonably be hoped for. The admissions included 11 general paralytics, 6 epileptics, 4 congenital imbeciles, 5 patients over seventy years of age, 11 chronic cases insane for years, and 4 cases dying of advanced malignant disease. In 58 cases suicidal tendencies were present, and 5 of them required surgical treatment for self-inflicted injury before admission. Two cases were admitted with broken ribs.

Only twelve were in average bodily health.

Derby County.—No less than six cases out of 183 admitted presented such transitory symptoms, that Dr. Legge could not certify them, and discharged them as not insane; 43 per cent. of the admissions had suicidal tendencies.

Much trouble and anxiety was caused by the continuance of colitis. In eighteen months 92 cases occurred with 34 deaths; but in 11 of the latter the colitis was considered rather to be a complication of another disease than the direct cause of death. Dr. Legge's remarks on the question are well worth perusal. In the result of such examination he cannot offer any trustworthy conclusion as to its origin.

Dorset County.—Dr. Macdonald cites the following case in connection with hereditary predisposition.

A and B were patients in the asylum, one male the other female, and both recovered. The mother of one of them came to the asylum to see yet another

child, who was confined therein. From her it was learned that A and B contemplated marriage. This outrage on posterity was fortunately stopped.

In forty-four deaths phthisis was present in two cases only. Dr. Macdonald claims considerable immunity from this disease for his asylum, and points out that it has been conclusively proved that bovine tuberculosis is less frequent in his district than in the county generally.

Glamorgan County.—During the year the award of the Arbitrator appointed by the Local Government Board has been published. According to it Cardiff has to go out and build an asylum for itself within five years' time. Meantime the Committee prefers "boarding out" to erecting temporary buildings for its excess patients. But Dr. Pringle wisely warns them of the difficulty in finding available accommodation in other asylums. Reading the reports of so many asylums as we do, we can fully endorse his view.

Gloucester County.—Dr. Craddock adverts to the wholesale influx of aged and infirm patients during the year. Of 292 admissions, 26 per cent. were over 60 years of age, 12 per cent. over 70, and 6 males ranged between 80 and 90. We quite endorse the following remark.

> That is to say, that of twenty-four unions, comprised wholly or partly within the county, less than 50 per cent. thought it necessary to visit and inquire into the condition of their patients here, a large number of whom from year's end to year's end of their often sad and monotonous lives, are never cheered by the sight of a face from their own homes. This is not as it should be. I hold it to be just as much an obligation on guardians of the poor to visit their insane paupers in the asylum as sane paupers in the workhouse; if anything, the necessity is stronger in the case of the former, as they are detained against their will, and therefore have a greater right of access to their legal representatives.

We think that it is more than a pity that, owing to the form taken in the statistics of disease, etc., in this asylum, it is impossible to ascertain with absolute certainty the number of general paralytics admitted in the year. This should not be so.

Hertford County.—This is Dr. Boycott's first report of the new asylum. Following recent good examples he gives full particulars of construction and other matters, which cannot fail to be of service to those who come after, in designing and arranging similar institutions. We congratulate him on having made a satisfactory start, and are glad to find that he has adopted the Association's statistical tables in their entirety.

Kesteven.—The foundations of the new asylums were completed early in the year, and the superstructure is being proceeded with. The brickwork of the male blocks was all but finished at the time of report.

Leicester County.—Dr. Stewart reports that a site for the new asylum of 182 acres has been found at Narborough, and has been purchased.

London City.—Dr. White, in view of the prominence given to the subject of tuberculosis in asylums, is enabled to state, that since the opening of the asylum in 1866, the total deaths from phthisis were 9·2 per cent. of all deaths. and 5·4 per mille of average number resident, as against similar averages in all County and Borough

Asylums in 1898 of 15·47 and 14·7 respectively. Fifty-three private patients were admitted, resulting in a total residence of 133 at the end of the year.

The death of Dr. Jepson, the former Superintendent, and for many years a member of the Association, is officially reported as having occurred on May 10th, 1899.

Middlesex County.—The Commissioners report as to the Annexe.

In the Annexe there are eighty-three idiot children, of whom about fifty attend elementary school for an hour daily, and the same number physical drill. Attention is chiefly paid to industrial training. The girls do much sewing and fancy basket-making, and the sewing part of bookbinding, while the boys are taught to make strong baskets and brushes, and tailoring, and shoemaking, and some are employed in white-washing, and on the farm. We think that this department is doing good and useful work, and on the proper lines, those, namely, of industrial schools.

A curious point has arisen. A female inmate of an Inebriate Home, during the period of her enforced detention, became insane and was sent to this asylum, where she recovered before her time at the Home was up. She complains of her detention, and the Home Secretary was being moved at the time of report to say what was to be done with her.

The Committee's report ends with the following expression of thankfulness.

The report of the Lunacy Commissioners is most satisfactory, as, for the first time for many years, it does not contain any recommendation which would throw an additional outlay on the county fund.

Middlesbrough Borough.—This asylum, like that of West Sussex, in its second report records the extension of accommodation. Four blocks of forty beds each are to be built, in the places assigned to them in the original designs. When they are built the asylum will be complete.

The male admissions are more than double those of the females.

Monmouth County.—The feeble health in the patients admitted was shown by the fact that 40 of the 126 deaths occurred within twelve months, and 31 within six months of admission. Of the 126 deaths 16 were attributed to cerebral softening, 20 to general paralysis, 26 to valvular disease of the heart, and 15 to phthisis. The death rate for the year was 11·9, an exceptionally heavy one. We note that in just 25 per cent. of the admissions, the cause assigned is "other bodily diseases." It would be interesting to learn why heart disease is so prevalent here. One recovery took place after thirteen years' residence.

Nottingham Borough.—The Commissioners note:

But we had one grievance brought to our notice, which we think is a substantial one, and that is, that the patients are taken to the Guildhall to be seen by the justices before they are sent to the asylum, as if they were criminals, and not visited in their own homes, as sick persons would expect to be.

Of the 74 males admitted no less than 16, or more than 20 per cent., were general paralytics, and one quarter of those paralytics remaining on December 31st, were females.

Salop.—Dr. Strange gives the following warning.

The changes in the male staff of attendants have been rather more numerous than usual, and are due to various causes. The calling up of the Army Reserve took away four good men; six were dismissed for bad conduct or drunkenness, and three absconded. I think there has been a number of men going about from one asylum to another getting appointments by false testimonials. One of the men dismissed was detected giving testimonials to two others. One of these men who absconded from here was in two other asylums in the space of a fortnight. Two of the men who had been dismissed had been in other asylums, and had suppressed the fact. There is no doubt that the calling up of the Reserves caused a dearth of good applicants, and gave an opportunity to these men to obtain situations.

18 per cent. of the deaths were caused by phthisis.

Stafford County (*Burntwood*).—Dr. Spence regrets that in spite of increased wages, improved hours, and such consideration in every way for their comfort, the subordinate staff, especially the females, continue to move on frequently. This he chiefly attributes to a wave of unrest, which appears to affect the class from which nurses are drawn.

The Committee, in recording their unabated confidence in Dr. Spence, the Medical Superintendent, desire to congratulate him upon the very successful tiding over of the difficulties and anxieties attending the administration of the asylum during the alterations and additions, which have now been completed.

Sunderland Borough.—Dr. Middlemass, in remarking on the cost to the community of a patient failing to recover, quotes a calculation which he had seen, to the effect that the average cost of residence for life in the asylum, and the average wages which the patient might have earned had he recovered, come to about £3000 per case. Surely this is out of the way altogether. An average patient costs about £35 a year for board and lodging. His or her wages might come on the average to £1 per week, but we doubt it. But if so the two together would come to £87, which would allow of more than thirty-four years' survival of an attack on the average. Taking his own averages (Table VIII), we find that the mean age on admission was 44·5, the mean age on death 52·7, and the mean age of the patients resident on December 31st, 1899, was 45·7; all of which figures are clearly against such longevity. The average residence of an uncured patient is extremely difficult to ascertain for the purposes of such a calculation.

Sussex (*East*).—We regret to notice that in consequence of a serious breakdown in Dr. Saunders' health, he was allowed a long leave of absence. Quite recently we hear that, in spite of a further six months' leave, his health was such as to compel him to resign, so that this report is his last. It is a satisfaction, however, to learn that the Committee has granted, and the Council has confirmed, a pension of £600 per annum. We hear, also, that Dr. Walker has been chosen to fill Dr. Saunders' place. Dr. Walker has been on the medical staff at Hayward's Heath for over nineteen years, and has been Acting-Superintendent during Dr. Saunders' prolonged absence.

Sussex (*West*).—Nearly one half of the male attendants have been called up to join the colours, a heavy trial for a young asylum. However, matters have gone well, according to the reports of the Committee and Commissioners.

Dr. Kidd keeps a score of several interesting matters; for instance, 2754 letters written by patients have been dispatched, and only 19 detained against the desire of the patients writing them.

Patients have made forty-three attacks on their fellows, and thirty-seven members of the staff.

Worcester County.—A dry but important point.

A male patient was ordered to be discharged by the Commissioners in Lunacy, under Sec. 65, Sub. 2 (*a*). His admission was illegal, as he had been accepted by the union, to which he was chargeable, without an order of adjudication, therefore his transfer orders should have been signed by visitors of this asylum, and not by visitors of the asylum from which he was transferred.

The Committee were enabled to reduce the weekly rate from 7*s.* 10*d.* to 7*s.* 7*d.*

Yorkshire (*West Riding*, *Menston*).—The following particulars, extracted from this report, in our opinion show conclusively the damage that is done by the County Council's avowed intention to give no pensions. We remind readers that this administrative county is the one that proposed to slightly increase current wages so as to allow the staff to make provision itself for old age.

There are now in the asylum:

18	attendants	and	11	nurses	of over	5	years' service.
9	,,		9	,,	,,	4	,,
8	,,		11	,,	,,	3	,,
11	,,		4	,,	,,	2	,,
4	,,		20	,,	,,	1	,,
34	,,		45	,,	under	1	,,
84			100				

Further, from a list of the staff who have gained the certificate of the Association between 1891 and May, 1899, we find that out of 58 attendants 28 have left, and of nurses only 16 out of 56 remained at the time of report.

This surely is a terrible waste of good material, which cannot be accounted for by the ordinary causes of retirement, *e.g.* marriage, etc. Each one of the above has served at least two years, and may therefore be regarded as having overcome the initial dislike of the hardships and troubles to be found in asylum life. We can only assume that, as was anticipated by some when the training scheme was started, the certificate of the Association gives a greater value outside the asylum to the holder, who will readily take advantage of it when he or she knows that leaving entails no sacrifice of an accruing pension. It is not business to allow good trained attendants to leave in this wholesale way, and we feel assured that it would not be permitted to go without an attempt to alter matters if the individual members of the Council recognised that each incoming attendant or nurse is an unknown quantity, either for good or evil. At best he is a source of doubt and anxiety to those who are responsible for the working of the asylum, and for the recovery and comfort of its inmates. Heaven only knows the harm that may be quietly done to cases whose recovery is hanging in the balance by inexperience, by unfortunate speeches, want of sympathy, and so forth. Of course the correct conduct of officers as to order, discipline, absence of brutality, etc., can be ensured, at least for the

most part, by unremitting supervision given by the superior staff; but these elements are only the foundation of the attributes which should be found in a first-class attendant. After two years' service it may be supposed that these further attributes have been acquired, and, if so, they surely belong to the asylum and patients at whose expense they have been gained.

Part IV.—Notes and News.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

General Meeting.

The General Meeting was held in London, at the Rooms of the Association, 11, Chandos Street, Cavendish Square, W., on Wednesday, November 21st, 1900, at 4.0 p.m., under the Presidency of Dr. Fletcher Beach.

Present: Drs. F. Beach, A. J. Alliott, T. O. Wood, G. H. Savage, E. White, Robert Jones, A. Miller, J. Chambers, H. T. S. Aveline, W. C. Clapham, P. W. Macdonald, A. N. Boycott, J. G. Havelock, G. S. Elliot, H. H. Newington, R. P. Smith, D. Bower, J. C. Johnstone, C. Mercier, H. Rayner, T. W. McDowall, W. J. Haslett, W. D. Moore, E. Goodall, E. Daunt, Margaret Orange, W. H. Kesteven, E. S. Pasmore, E. B. Whitcombe, F. W. Mott, R. J. Stilwell, W. S. Kay, F. R. P. Taylor, J. S. Grubb, F. A. Elkins, W. J. Mickle, A. S. Newington, G. Mould, G. A. Watson, G. F. Blandford, H. J. Mackenzie, J. R. Whitwell, H. J. Macevoy, F. H. Edwards, W. G. Ellis, J. C. Nixon, F. J. Stuart, C. F. Bradley, S. Lloyd Jones, J. G. Soutar, W. C. Sullivan, J. F. Briscoe, D. G. Thomson, R. R. Alexander, J. B. Spence, F. W. Edridge-Green, T. E. K. Stansfield, F. Percival, R. H. Steen, R. H. Cole, H. W. Kershaw, C. K. Hitchcock, T. B. Hyslop, W. Douglas, R. N. Paton, H. Smalley, E. France, G. E. Shuttleworth, D. Fleck, H. G. Hill, L. A. Weatherly.

Visitors: Sir Dyce Duckworth, Sir William R. Gowers, Sir Hermann Weber, Major Lloyd Jones, I.M.S., Drs. H. E. Haynes, Lewis Jones, E. P. Furber, H. H. Tooth, P. H. Pye-Smith, E. Symes Thompson, E. Howard, A. F. Tredgold, Mrs. A. J. Ross.

Apologies were read from the following: Sir J. Crichton Browne, Drs. J. M. Moody, Yellowlees, J. R. Lord, J. Wiglesworth, Bevan Lewis, C. Hubert Bond, Thos. Graham (Paisley), Turnbull.

The following candidates were elected as ordinary members:—Abbott, Arthur Joseph, M.D., B.Ch., B.A.O., T. C. Dublin, Assistant Medical Officer, Hants County Asylum, Fareham; proposed by Drs. Thomas B. Worthington, William J. Mackeown, and Robert Jones. Abbott, Harry Kingswill, M.B., B.Ch., M.D. Dublin, D.P.H. Ireland, Senior Assistant Medical Officer, Hants County Asylum, Fareham; proposed by Drs. Thomas B. Worthington, William J. Mackeown, and Robert Jones. Bowles, Alfred, M.R.C.S., L.R.C.P., late Assistant Medical Officer, Moorcroft Asylum (now 10, South Cliff, Eastbourne); proposed by Drs. H. Stilwell, R. H. Cole, and H. Hayes Newington. Cook, John Benson, L.R.C.P. and L.R.C.S.Edin., Medical Officer, H.M. Prison, Borstal, Rochester; proposed by Drs. Herbert Smelley, R. N. Paton, and Fletcher Beach. Despard, Rosina C., M.D.Lond., Assistant Medical Officer, Holloway Sanatorium, Virginia Water, Surrey; proposed by Drs. Wm. D. Moore, Thomas E. Harper, and A. N. Boycott (through Dr. Boycott, Secretary S.E. Division). Grove, Ernest George, M.R.C.S. and L.R.C.P.Lond., Assistant Medical Officer, York Lunatic Hospital, Bootham, York; proposed by Drs. C. K. Hitchcock, Crochley Clapham, and

J. Tregelles Hingston (through Dr. Clapham, Secretary Northern and Midland Branch). Haynes, Horace Eyre, M.R.C.S., L.S.A. Medical Resident Licensee, Bishopstone House, Bedford; proposed by Drs. Maurice Craig, Theo. B. Hyslop, and Robert Jones. Holländer, Bernard, M.D.Freiburg-in-B., M.R.C.S., L.R.C.P. Lond., 62, Queen Anne Street, London, W.; proposed by Drs. David Brodie, Ernest W. White, and George H. Savage. Hughes, George Osborne, M.D. Virginia, America, M.R.C.S.Eng., L.R.C.P.Lond. (on the Teaching Staff of Virginia University, U.S.A.), 16, Harvey Road, Hornsey, London, N.; proposed by Drs. Robert Jones, C. T. Ewart, and H. Hayes Newington. McClintock, John, L.R.C.P. and L.R.C.S.Edin., Resident Medical Superintendent, Grove House, Church Stretton, Salop; proposed by Drs. Cecil A. P. Osburne, Oscar Woods, and H. Hayes Newington. Tinker, William, L.R.C.P.Lond., Senior Assistant Medical Officer, Holloway Sanatorium, Virginia Water, Surrey; proposed by Drs. Wm. D. Moore, Thomas E. Harper, and A. N. Boycott (through Dr. Boycott, Secretary S.E. Division).

The following papers were read:—By Sir Dyce Duckworth, M.D., L.L.D., F.R.C.P.Lond., Treasurer of the Royal College of Physicians of London, Physician to and Lecturer on Clinical Medicine, St. Bartholomew's Hospital, E.C., "Mental Disorders dependent on Toxæmia." By George H. Savage, M.D., F.R.C.P., Physician in Charge of Mental Diseases and Lecturer to Guy's Hospital, S.E., "Travel: its Use and Abuse in the Treatment of Mental Diseases." By Lewis Jones, M.A., M.D.Cantab., F.R.C.P.Lond., Physician in Charge of the Electrical Department, St. Bartholomew's Hospital, E.C., "The Application of Electricity in certain forms of Mental Disease."

[These papers and the consequent discussions are unavoidably postponed in publication.—Ed.]

Council Meeting.

Council meeting held at 3 p.m. on the same date.

Present: Drs. Fletcher Beach (President), H. Hayes Newington (Treasurer), C. Mercier, H. A. Benham (Registrar), Crochley Clapham, J. Carlyle Johnstone, Alfred Miller, Ernest W. White, Geo. H. Savage, P. W. Macdonald, H. T. S. Aveline, David Bower, J. B. Spence, James Chambers, John G. Havelock, A. N. Boycott, R. Percy Smith, Henry Rayner, L. A. Weatherly, H. Gardiner Hill, G. Stanley Elliot, and Robert Jones (Secretary).

The name of Dr. Ernest W. White, who was present at the Council Meeting in July, 1900, was inadvertently omitted.

Apology for non-attendance was received from Dr. C. Hubert Bond.

The Minutes of the previous Council Meeting were read and confirmed.

The Treasurer reported that the bank balance was £328 0s. 3d.

Various asylums were approved for the purposes of training and certification of nurses under the rules of the Association, viz. Valkenberg, Cape Colony; Port Alfred; Grahamstown; Darenth; Parkside, South Australia. One of the signatures for each certificate will be that of a member of the Medico-Psychological Association, and that signature by preference that of the medical superintendent.

Letters from the English, Irish, and Scottish Local Government Boards, acknowledging the resolution of the Association in regard to nursing the insane in workhouses, were read by the Secretary.

NORTHERN AND MIDLAND DIVISION.

A meeting of this Division was held at the Newcastle City Asylum, Gosforth, on the 3rd October, 1900.

Members present: Drs. Mackenzie, Miller, Norah Kemp, T. W. McDowall, D. Hunter, Hitchcock, Stevens Pope, Perceval, Callcott, and Crochley Clapham. Visitor: William James Penfold.

Dr. Callcott having been voted to the chair, the minutes of the previous meeting were read and confirmed.

A letter from Dr. Sheldon, of Parkside Asylum, Macclesfield, was read by the Chairman, apologising for not being able to produce the promised plans of the new annexe, owing to their being still in the hands of the Home Office.

The HON. SECRETARY read a paper, contributed by Dr. Sheldon, on "A Fatal Case of Poisoning by Jeyes' Fluid" (see page 98).

Dr. W. J. PENFOLD read a paper on "Mitral and Tricuspid Incompetence," and exhibited an instrument which he employed to determine the amount of valvular leakage *post mortem* (see page 87).

Previous to the business meeting, Dr. Callcott exhibited plans of the recent large additions made to the asylum, and showed members round the new buildings.

Members dined with Dr. Callcott at the asylum in the evening.

SOUTH-EASTERN DIVISION.

The Autumn Meeting was held at Ticehurst on Wednesday, 10th October, 1900.

Present: Drs. Fletcher Beach (President), Ernest White, W. J. Mickle, D. C. Thomson, H. H. Newington, J. Peeke Richards, Elliot Daunt, Robert Jones, W. R. Kingdon, C. Stanley Elliot, A. Newington, D. Bower, B. Hollander, W. Rawes, T. Seymour Tuke, C. W. Rolleston, C. H. Johnston, J. A. Cones, Haslett, T. Newington, R. H. Cole, Alliott, and A. N. Boycott.

At 1.30 p.m. luncheon was served, and at 2.30 p.m. a meeting of the Divisional Committee was held. During the afternoon the members inspected the houses and grounds of the Drs. Newingtons' establishments, and at 4.30 the meeting assembled, when Dr. Fletcher Beach (President) took the chair. The minutes of the last meeting were read and confirmed.

The following gentlemen were elected members of the Association:—Hill, James Robert, M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent, Fenstanton, Christchurch Road, Streatham Hill; proposed by Drs. Gardiner Hill, Boycott, and Rolleston. Hughes, Percy Theodore, M.B., Ch.M.Edin., D.P.H.Lond., Assistant Medical Officer, London County Asylum, Bexley, Kent; proposed by Drs. Stansfeld, Bond, and Lord. Kay, Alfred Reginald, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, Middlesex County Asylum, near Tooting, S.W.; proposed by Drs. Gardiner Hill, Boycott, and Rolleston. McConaghey, John Cunningham, M.B., Ch.B.Edin., Assistant Medical Officer, Herts County Asylum, Hill End, St. Alban's; proposed by Drs. Moody, Boycott, and Grimmond Smith. Smith, John Salmon, M.R.C.S., L.R.C.P., Assistant Medical Officer, London County Asylum, Hanwell; proposed by Drs. Alexander, Boycott, and Grimmond Smith. Stuart, Frederick J., M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, County Asylum, Berrywood, Northampton; proposed by Drs. W. Ernest Jones, Boycott, and Grimmond Smith.

Dr. HAYES NEWINGTON intimated the receipt of a letter from Dr. Langdon-Down saying that he could not be present on account of his mother's death. Dr. Newington, continuing, said that Mrs. Langdon-Down and her sons had entertained the Association most hospitably the year before last. She had made a great mark in the management of the feeble-minded. He suggested that the Secretary should express the condolence of this meeting with Dr. Langdon-Down on his loss.

The PRESIDENT said that he had known Mrs. Langdon-Down and her family for many years past. She was held in the highest respect in the neighbourhood where she lived, and many were impressed by the work she had done. He concurred in the suggestion made by Dr. Newington. This was agreed to unanimously.

The HON. SECRETARY mentioned that several letters and telegrams had been received from members who were unable to attend.

Dr. HAYES NEWINGTON read a paper on "Some Incidents in the History and Practice of Ticehurst Asylum," by the Medical Superintendents (see page 62).

Dr. BERNARD HOLLANDER read a paper on "The Present State of Mental Science," the publication of which is postponed.

A very hearty vote of thanks was accorded to the Drs. Newington for entertaining the members of the Association; also to the President and Secretary for organising the meeting.

The members were afterwards hospitably entertained by the Drs Newington at dinner.

SOUTH-WESTERN DIVISION.

The Autumn Meeting was held at Broadmoor Asylum, Wokingham, on Tuesday, 30th October, 1900.

Present: Dr. Beach (President) in the chair; Dr. Nicolson, C.B.; Dr. Aldridge, Dr. James Stewart (Clifton), Dr. Aveline, Dr. MacBryan, Dr. Braine Hartnell, Dr. Benham, Dr. Noott, Dr. Baker, Dr. Brayn, Dr. MacDonald (Hon. Sec.), and two visitors.

Minutes: The minutes of the last meeting were read and confirmed.

The CHAIRMAN announced that the Secretary had received letters of regret from Dr. Turner, Dr. Deas, Dr. Weatherly, and Dr. Soutar.

New Member: Walters, John Basil; M.R.C.S.Eng., L.R.C.P.Lond., A.M.O., Bailbrook House, Bath, was unanimously elected.

Dr. BRAYN read a paper entitled "A Brief Outline of the Arrangements for the Care and Supervision of Criminal Lunatics during the Present Century."

Dr. JOHN BAKER read a paper entitled "Observations on Epilepsy in Relation to Crime." Both these papers with the relative discussions will be published in the next number of the JOURNAL.

It was resolved to ask Dr. Turner to read his paper at the Spring Meeting.

The PRESIDENT said, It is my agreeable duty to ask you to express the appreciation of the meeting for the kindness with which Dr. Brayn has treated us to-day, and for the hospitality which he has been good enough to extend to us. For myself it is a great pleasure to come back to the old place. I constantly hear from those I come in contact with, that they have theories about its management and condition which they would like to test, and I am pleased to say, in a general sense, that inspection and examination have led those individuals to approve of what they have seen. We are very grateful to Dr. Brayn for his hospitality on this occasion, and I ask you to pass a cordial vote of thanks to him.

Dr. BRAYN:—I am glad to have had the opportunity of seeing you here, and am sorry I have not been able to welcome more. I hope you have all enjoyed yourselves.

The members and friends dined after the meeting at the Wellington Hotel.

SCOTTISH DIVISION.

The Autumn Meeting was held in he Hall of the Royal College of Physicians, Edinburgh, on Friday, 30th November, 1900.

Present: Dr. Yellowlees (presiding), Dr. Clouston, Dr. Easterbrook, Dr. Ford Robertson, Dr. Ireland, Dr. Havelock, Dr. Hotchkis, Dr. Keay, Dr. J. Carlyle Johnstone, Dr. Parker, Dr. H. C. Marr, Dr. G. M. Robertson, Dr. J. Rorie, Dr. G. A. Rorie, Dr. James Rutherford, Sir John Sibbald, Dr. J. P. Sturrock, Dr. Urquhart, Dr. W. R. Watson, Dr. G. R. Wilson, Dr. Turnbull (Secretary), and Dr. J. H. Macdonald as a visitor.

The minutes of last meeting were read and approved.

The following gentlemen were elected members:—Dr. Alfred Bentley Sigismond Powell, Assistant Medical Officer, The Priory, Roehampton; Dr. Bernard Stracey, Pathologist, Crichton Royal Institution, Dumfries; and Dr. James Prain Sturrock, Senior Assistant Medical Officer, Larbert Asylum.

The Divisional Secretary intimated apologies for absence from Sir William T. Gairdner, Dr. Beveridge Spence, and Dr. Bruce.

Dr. G. A. RORIE read a paper on "Post-Influenzal Insanity," which was followed by a discussion.

Dr. W. FORD ROBERTSON and Dr. J. H. MACDONALD showed, under the microscope, Golgi's preparations, rendered permanent by platinum substitutive processes. These papers with the relative discussions will appear in the JOURNAL in due course.

Dr. Bruce's paper was postponed, owing to his unavoidable absence.

The Meeting then proceeded to discuss the propositions formulated by the Committee on Nursing Administration, and the debate was adjourned till Spring.

On the motion of Dr. TURNBULL, hearty votes of thanks were given to Dr. Yellowlees and Dr. Clouston, for their conduct in the chair.

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.]

Reg. v. Holden.

Joseph Holden, 57, iron-turner, was indicted for the murder of his grandson, John Davies. Prisoner, when called on to plead, said that he was guilty. The judge asked him if he knew to what he had pleaded guilty, and he said "Yes, killing that boy." The judge then asked if there were medical men present who could give evidence as to the prisoner's mental condition. Mr. Edwards, surgeon to the jail, was of opinion that the prisoner was sane. Mr. Smith, deputy surgeon, was of the same opinion. Dr. Ley, of Prestwich, said that the prisoner was a man of poor physique and prematurely aged, and showed marked signs of mental and physical degeneration. He considered him to be a man of unsound mind. He was suffering from brain disease of a progressive character, which would sooner or later end in complete dementia; but witness thought that he was quite capable of understanding what he was charged with. The jury found the prisoner fit to plead. He was then arraigned afresh, and again pleaded guilty. The judge said there remained only one thing for him to do. If the prisoner was not in such a condition of mind that the Crown would execute the due penalty for the crime to which the prisoner had confessed, and of which no one could doubt him to be guilty, then it would deal with him in its mercy.—Manchester Autumn Assizes, Mr. Justice Darling.—*Manchester Guardian*, November 14th.

Judges are usually, and not unnaturally, astounded when the prisoner pleads guilty, but it is to be supposed that there was something in the demeanour of the prisoner beyond the mere fact of his plea to induce the judge to order the trial of his competency to plead.

The Guardians of St. Saviour's Union v. Burbidge.

This was a case stated by Mr. Hopkins, a metropolitan police magistrate. Burbidge had been maintained by the Guardians during an attack of delirium tremens, and the Guardians prosecuted him under the Vagrants Act for that, being able—wholly able by work—to maintain himself, he wilfully neglected and refused so to do, by which he became chargeable to the Union. The magistrate refused to convict, and the Guardians appealed.—Mr. Justice Kennedy said that the magistrate was quite right. Burbidge at the time he was taken to the infirmary was very ill. He was a subject of danger to himself and those about him; he was, in fact, diseased and incapable of maintaining himself. He had become so by his own act, it was contended; but it was impossible to suppose that the Act intended to punish people who, by a voluntary act, had brought on disease. The question for the magistrate was, Could the man be convicted of wilfully refusing or neglecting to maintain himself? He would have been quite wrong if he had convicted a man of that offence because he was suffering from a disease, however that disease might have been caused.

Dowling v. Dods.

The trial of this case was reported in the last number of the JOURNAL. On November 6th it came before the Court of Appeal, on application by the defendant for judgment or a new trial. It was contended on behalf of the defendant that the verdict was against the weight of evidence, and that there was no evidence of malice.—The Court allowed the appeal.

The Master of the Rolls said that the alleged libel might be summed up in this that it imputed insanity to the plaintiff. The jury found that some of the statements were true, and some were untrue. At the end of the plaintiff's case Mr. Justice Darling held that the occasion was privileged, and in his (the Master of the Rolls) opinion the learned Judge was quite right in so holding. It was a letter written by the defendant, with the knowledge which he had, to the relieving officer, informing the latter that the plaintiff was not a fit person to dispense medicine in his district. It was not a certificate under the Lunacy Act. It was

clear that the occasion was privileged. It was plain from the evidence that the plaintiff's mind was unhinged. The jury had found part of the letter to be true, and part to be false. If it were necessary to consider the case from that point of view, he would say that he did not agree with that finding, and would send the case down for a new trial. But it was not necessary to consider that question. The occasion being privileged, the onus was cast upon the plaintiff of proving that the defendant, at the time he wrote the letter, acted from an improper motive, a sinister motive, some motive which was not an honest motive. The onus of proving that issue was cast upon the plaintiff, and unless the plaintiff could give some tangible evidence of spite or other improper motive, judgment must be entered for the defendant. Mr. Justice Darling, though he had doubts upon the matter, allowed the case to go to the jury, who found that the defendant did not act from an honest motive in writing the letter, but had some malice towards the plaintiff. Where was there any evidence of malice? In his opinion upon the evidence there was no evidence of express malice. Judgment must therefore be entered for the defendant with costs, here and below.

Lord Justice Collins concurred. It would be nothing short of a scandal if they were obliged to submit the issues in this case to another jury. In his opinion, if it were necessary to decide the question, there was no evidence at all upon which the jury could fairly find that the justification was not true. The evidence seemed to him to be all one way. However, that was not a matter that it was necessary for the Court to consider. There was the other point upon which he agreed with the view expressed by the Master of the Rolls. When the judge has once ruled that the occasion was privileged, the onus was cast upon the plaintiff of proving express malice in the defendant. In his opinion there was no evidence of express malice.

Lord Justice Stirling agreed that there was no evidence of malice on the part of the defendant.

The following account is inserted here as a very unusual instance of the verbatim report of the ravings of a madman. We occasionally see in novels, and not infrequently in old plays, incoherent stuff which purports to be the raving of a maniac, but there is always an air of artificiality about it. It never convinces us that a maniac ever did rave like that, and those who are familiar with the genuine ravings of actual lunatics are seldom or never able subsequently to reproduce these ravings, or to give an account of what they are like. A verbatim report of an actual utterance is therefore of considerable interest, and as such is reproduced here.

Actor's strange Delusions.

George R— æt. 34, an actor, was charged on remand yesterday at Bow-street Police Court with being drunk and disorderly. When brought before the magistrate last week, he appeared greatly excited, and made a long, incoherent statement. Mr. Marsham remanded him, because he did not think he should be allowed to wander about the streets in such a state, and last Saturday, when he should have been again brought up, the medical officer at Holloway reported that he was in too excited a state to be brought before the court. He was now brought in wearing a strait-waistcoat decorated with the broad arrow, and at once turned to the magistrate, and said, "Will you try me? What is your position here?

Mr. Marsham: Have you anything to say to me?

Prisoner: Certainly. I have got millions of money, and am going to Windsor. I went to Heaven yesterday, and it was very dark. My mother and dead relations welcomed me, and I went out with them. The Lord said to me, "You are the Holy Ghost, the Trinity is now complete." I was born every evening, and came here on the third. They said I was mad, but I was not. All the money I got I gave to the Lord, and had not a penny left. I was with some of the finest men, you know. I shall have France and Russia as well, and there will be one God from north to south. We call this the Green Island and the Green Moon, and England will be called the Rose Moon. There will be ever so many more moons, and that is the explanation of all these little stars. I want a few millions,

and I will make a million—ten millions—to-day. But I cannot move without the consent of the Queen to marry me. Every man will have as many wives as he likes. The Lord told me the reason; and there will be no doctors. I shall have a thousand of the most beautiful women, and if a man takes a fancy to any of them he will have to pay me what I like, and all the money will go to the benefit of our glorious Empire. You should have seen how pleased my mother was. The Lord said to me, "You will see the Silver Moon." Everything was silver and gold and diamonds, and everyone was happy. Every morning at half-past five all the little children were examined by God. I can read a man's character well. I can read yours. You are a very honourable gentleman; I know almost every incident in your life. I am just going to Windsor now. Will you gentlemen (addressing some gentlemen in court) have a Silver Moon luncheon with me. Charlie, old fellow, here is £5000 for you. George, I will make a Cabinet Minister of you. I have been honourable to my foster-sister. Go and get yourself dressed. Go to the Army and Navy Stores, and get yourself £1000 worth of clothes. This man (pointing to another person) is one of the best fishmongers in London.

Mr. Marsham: Yes. You may go now.

Prisoner: Good-bye and God bless you. I cannot move my arms until I have seen my Queen.

After R— had left the court, Mr. E. B. Norman, stage manager at Daly's Theatre, informed the magistrate that R— had been in Mr. George Edwardes's employ for about sixteen months. He had been on tour, but came up to town to get a divorce from his wife, and it had unsettled his mind, as he was generally a very sober, steady man. If he got better Mr. Edwardes would be glad to find him employment again.

Mr. Marsham said that he was glad to hear this. In the meantime the man would be sent to the workhouse to be dealt with as a lunatic.

ASYLUM NEWS.

Aberdeen District Asylum.

Tenders have now been invited for the new asylum to be erected by the Aberdeen City District Lunacy Board at Kingston, Newmachar, at a probable cost of £100,000. The site is convenient to the railway, and slopes to the south in front of a well-wooded rising ground. The asylum is designed on the model of Alt Scherbitz, and there will be in all twenty-seven separate buildings occupying a site of about thirty acres. The rest of the estate will be utilised for farm, garden, and recreation ground. The buildings are arranged in three sections—medical, industrial, and general. In the medical section there are eight separate buildings, as follows:—(1) An hospital divided into separate wings for physically sick, infirm, and recent acute mental cases; (2) an isolation ward for suspected cases of infectious diseases; (3) two observation villas; (4) two closed asylums; and (5) two convalescent hospitals. The industrial section consists of six villas—three for males, and three for females—accommodating from thirty to forty persons in each. Villa No. 1 is intended for workers who are untrustworthy owing to restless habits, delusions, or want of intelligence. Villa No. 2 is for patients able to work, who require somewhat less day supervision than the former class. Villa No. 3 is for working patients requiring a minimum of day supervision and no night supervision.

The general section consists of twelve separate buildings, viz. administrative offices and Board room, kitchen and stores, laundry, boiler house, workshops, houses for nurses and female servants, medical superintendent's residence, steward's house, lodges for gardener and engineer, cottages for married attendants, greenhouses, recreation hall, and mortuary. Accommodation is provided for 550 persons, and it is proposed that future extension should be met by the erection of extra villas from time to time as required. In view of this, the central buildings have been made large enough to suit an asylum of 700 patients.

The steam supply is to be sufficient, not only for driving the machinery of the laundry and workshops and for the production of electricity, but also for steam heating, hot water supply, cooking, etc. The outlying villas are to be served by

separate local boilers. It was at first contemplated to have only one central source of hot supply, but the architect found that this would be too costly, owing to the great distances which separate some of the buildings. There is no general dining hall. The patients will dine in the separate villas, their meals being sent from the general kitchen in specially-constructed trollies.

The architectural treatment in the later Scottish renaissance style of the various buildings is plain, but pleasant and varied. No two villas are exactly alike, and the aim has been to impart a picturesque and village-like appearance without any suggestion of a large institution. The architect is Mr. A. Marshall Mackenzie, A.R.S.A., whose admirable work is well known in the north of Scotland. It is likely that a system of purification by means of a covered septic tank with double contact filter beds will be adopted for the disposal of the sewage.

New Home for Imbecile Children.

There was opened at Woodilee Asylum, Lenzie, on September 14th, a Home for Imbecile Children, which has been erected by the District Lunacy Board of the Glasgow Parish Council. The new Home, which is estimated to cost over £10,000, is detached from, though near, the main building. It accommodates thirty-three children, and consists of three stories. The first floor contains a hall and corridor, a dining hall, day rooms, play room, and a special dormitory for six patients; the second floor is occupied chiefly by dormitories. In the meantime only children who are not susceptible of improvement are received. Dr. R. Wilson Bruce, convener of the Asylum Committee, on opening the home delivered a brief address. In the course of it he said that to make provision for non-educable imbecile children was new to asylum administration, and that the building was the first attempt in that direction in Scotland. Mr. R. Bryden was architect of the building.

Lancashire Asylums Board.

At a meeting of this authority lately, it was decided to award the asylum superintendents good service pay, carrying no pension, after twenty-one years' service, on the recommendation of the committees of the asylums. The overcrowding and lack of accommodation in the Lancashire asylums were discussed, after the reception of a deputation from Bolton.

North Midland Poor Law Conference.

Dr. J. M. Rhodes read an interesting paper at this conference at Buxton. He urged that county councils should erect colony asylums, and said that by establishing first-class asylums with competent staff they could increase the number of recoveries, and (American statistics pointed that way) then they would be investing the capital of the ratepayers so as to furnish a very fair interest in the future.

Meeting of the Manchester Guardians.

The chairman of the October meeting referred to the deplorable occurrence in the Crumpsall workhouse, where the imbecile wards, intended for the care of harmless cases, were forced to receive all kinds of insane persons, owing to the want of accommodation in the asylums of the county. Prescott's case is referred to a committee of investigation, and we refrain from further comment in the meantime.

The Hartford Retreat.

We have been favoured with a copy of the *Hartford Times* of 16th December last, which contains a full account of a notable gift to the Hartford Retreat. Dr. Gurdon W. Russell has presented his beautiful country house on Cedar Mountain, with nine acres of ground, and a cheque for 500 dollars, so that the patients and staff may have the benefit of change of air and scene as may be thought proper. Dr. Russell has maintained an intimate connection with the affairs of the Retreat for nearly half the century as director, medical adviser, or president of the board of management, and one of his former benefactions is the handsome chapel which he gave to the institution some years ago. We congratulate this old-established

institution on its continued activity under the perennial direction of the veteran Dr. Stearns, whose revered personality is well known to many of us on this side of the Atlantic. These acts of generosity and goodwill towards the hospitals for the insane in America are by no means rare, and we could wish that some of our philanthropists were similarly moved to deeds of beneficence for the mentally afflicted at their doors.

The Mount Lebanon Asylum.

This new institution has lately been opened, chiefly owing to the exertions of Mr. Theophilus Walmeir, who has for long served as a missionary in Syria. It consists of a central block with two pavilions, accommodating twenty patients of each sex. Seventeen patients are now resident. Dr. Wolff, lately of the Munsterengen Asylum, Switzerland, is the medical superintendent of this, the first organised institution for the insane in Syria. As funds will be required from Europe to maintain it for some time to come, our readers will note that Dr. Percy Smith is the chairman of the London Committee, and kindly lend their aid in developing a most deserving charity.

Organisation of Private Asylums in the United States.

The *Lancet* states that the Association for the Study and Cure of Inebriates has held a meeting for this purpose. It was pointed out that nearly a hundred asylums exist in the New England and Middle States for the treatment of mental and inebriate cases, that they are without organisation, State or local control, and managed by unknown persons, one half of them being charlatan institutions. We are well aware that grave suspicions have been entertained in reference to these houses, and rejoice to hear that a serious effort is to be made to alter existing circumstances.

The Asylum Workers' Association.

This Association has already attained a wonderful success, not only in its numerical strength, but also in having secured a strong and influential list of office-bearers. The annual report states that the roll of members increased from 2890 to 3006 in the course of last year, 1010 new members having been elected. Many asylums not previously represented in connection with the Association have been added to the roll, and the financial statement shows that the ordinary receipts have been considerably in advance of those of the previous year. Starting with a credit balance of £137, the year ended with £147 to the good, and this after all expenses in connection with the *Asylum News*, the *Home of Rest*, etc. The Committee entered into details as to what was done to promote the interests of asylum workers, and specially congratulate the Association on the continued services of Sir James Crichton-Browne as President, and Dr. Shuttleworth as Secretary.

At the annual meeting the President delivered an eloquent address, which we need not reproduce here, as it is accessible in the columns of the *Asylum News*, which should find its way into every institution for the cure and treatment of the insane.

We congratulate the Association on its rapid progress, and the excellent work accomplished on behalf of all asylum workers, for in benefiting the workers it must in the end benefit the insane. In the words of the President, the Association "is deserving of the support of all who wish well to the mentally afflicted, and who desire to ameliorate the lot of those who immediately minister to them."

GENERAL HOSPITALS AND MENTAL DISEASES.

Out-patients suffering from mental disorders have been for long treated at St. Thomas's Hospital and elsewhere. The results of experience have shown that good work has been done in relieving many sufferers, and in avoiding the necessity for asylum care in not a few cases. It is, indeed, strange that so many of our general hospitals lag behind in this matter. The quarterly Court of Governors of the Newcastle Infirmary has decided to institute such a department, as reported by the *Newcastle Evening Chronicle* of November 1st. Dr. G. H. Hume, in

moving the resolution at the meeting, pleaded for the fundamental ideas of prevention and cure, and it has been decided that a physician, qualified as the rules require, and occupying an appointment in a public asylum in Northumberland or Durham, should attend at the infirmary one day in each week and prescribe for the out-patients placed under his care. Of course there were the usual objections, and even a notice of motion to rescind part of the resolutions; but it is to be hoped that the practical good sense which has been so far successful will carry the day at the next meeting, and in the end prove the wisdom and utility of the course adopted.

In several districts of the State of New York reception buildings have been provided in connection with general hospitals. The Albany *Medical Annals*, referring to the matter, says:—"It is anticipated that cases of acute delirium, alcoholic or otherwise, may be by these means protected from dangerous delay and neglect, that doubtful cases may be observed during consideration of the proper disposition to be made, and that commitments may be carefully and judiciously considered, to the advantage both of the patient and the State institution to which he may be sent."

THE LONDON INEBRIATE REFORMATORY.

The inebriate reformatory for females established by the London County Council at Farmfield, near Horley, has been opened for the reception of inmates. Two mansions on an estate of 300 acres have been modified for the purpose in view, and Mrs. Matthias has been appointed superintendent. The institution will be watched with great interest, and as it is stated by Dr. Collins that the accommodation at disposal is already nearly fully occupied, we shall soon be in possession of information as to methods and results.

EPILEPTIC COLONY NEAR MANCHESTER.

The David Lewis trustees have decided to purchase an estate at Warford, and to erect extensive buildings for the care of epileptics there. At least £50,000 are to be expended on the various houses of the proposed institution, which will be for private cases only.

HYPNOTISM IN EXCELSIS.

The *Daily Mail* of the 24th September gives a long account of Dr. Forbes Winslow's use of hypnotism in the British Hospital for Mental Disorders and Brain Diseases. The writer was astonished. He concluded that what he witnessed was more wonderful than mere curative hypnotism, or else mere clowning. A case of obsession was not hypnotised at all, but Dr. Winslow professed to hypnotise May, his hired "medium," and to assure him that he had the patient's feelings. Unfortunately the patient could not assent to the proposition that transference had taken place and, in spite of the application of magnets, left the hospital with her mental confusion unabated.

Dr. Forbes Winslow thereafter wrote to the *Lancet* explaining that May is an electrical engineer, married, with two children, aged 32 years. He finds that mental concentration is difficult to obtain in nervous cases, and that suggestion must therefore be made indirectly through a transference medium. That is why Mr. J. May, qualified as above indicated, is employed to attend every week at the hospital. Dr. Winslow has no doubt that there were cases of transference shown among the hypnotic patients exhibited at the Paris Congress, and concludes by challenging any one to wake his medium by any fair means. The *Daily Mail* man indicates that the process is both rapid and facile. Perhaps it would be better to rouse our less expert hypnotists to a sense of their inferiority, before proceeding to wake Mr. J. May in the performance of his weekly duties amongst mental disorders and brain diseases.

CORRESPONDENCE.

Asylum Nurses and Hospital Training.

From Dr. Yellowlees.

I wish to protest against a practice which is becoming too common. When a vacancy is advertised in the higher ranks of asylum service, it is frequently stipulated that the applicant must be a hospital trained, certificated nurse.

It surprises me greatly that any asylum superintendent can approve of such a limitation; for it utterly disparages the training prescribed by our Association and the certificate it grants, while it greatly discourages and disappoints every asylum official who is striving to excel.

What can have suggested such a condition? Four-fifths at least of our asylum patients are in excellent general health and need no medical "nursing." The remainder, whose insanity involves much disorder of bodily health—the epileptics and paralytics, the cases of senility, or of gross brain disease—are far better nursed by an asylum nurse, who is familiar with the work and with the allied mental states, than by any hospital nurse. Our asylum training is sufficient, under the resident doctor's guidance, for any medical case, and the rare event of any serious surgical operation can easily be met by obtaining, if necessary, a special nurse.

Is our certificate of so little value that it is ignored even by our own members? Possibly the certificate, when first instituted, was granted to some whose experience had been far too limited; possibly the examination may have been in certain cases deficient in scope and strictness. These defects, if they existed, have been remedied; but most assuredly similar faults could be alleged against many hospital certificates, though these are now deemed essential.

Is it, then, that hospital training is so vastly superior to asylum training? A hospital trained nurse who has learned to carry out carefully and intelligently the doctor's instructions, to record accurately the patient's symptoms, and to minister kindly, patiently, and cheerfully to the patient's wants, is, of course, invaluable and worthy of all due consideration and esteem. But an asylum trained nurse must learn to do all this and much more. She has to deal, in addition, with all the vagaries of talk and conduct developed by a disordered mind, to calm the restless, to guide the perverse, to rouse the apathetic, to comfort the desponding, and to continually be on watch against dangerous impulses or suicidal attempts. Thus she must be constantly alert and observant, must exercise unfailing self-control, and must frequently and without hesitation act on her own judgment and responsibility in dealing with critical emergencies.

Of course proficiency in any kind of nursing must largely depend on the individual nurse, but surely no one can question which of these has the highest, the more difficult, and the more important duty.

The hospital wards of a good asylum afford ample opportunity for learning the bodily nursing of the insane, as well as their mental nursing; and to make ordinary hospital training indispensable for promotion in asylum service is, in my opinion, quite unjustifiable, and an unworthy slight on the staffs of our asylums.

The International Psychical Institute.

From Mr. O. Murray.

Permit me to point out that the paragraphs which appeared in the Journal of Mental Science for October, dealing with the foundation of the International Psychical Institute in Paris, require supplementing by further information to prevent misconception. The objects of this Society are stated in the programme drawn up by Dr. Pierre Janet to be as follows:

1. To collect in a library and museum all books, works, publications, apparatus, etc., relating to psychical science.

2. To place at the disposal of researchers, either as gifts or as loans, according to circumstances, such books and instruments necessary for their studies as the Institute may be able to acquire.

3. To supply assistance to any laboratory or to any investigators, working singly or unitedly, who can show that they require that assistance for a publication

or for a research of recognised interest. This function, which has been fulfilled so usefully by the Société pour l'Avancement des Sciences in relation to the physical sciences, must also be discharged by the new Institute in relation to mental science.

4. To encourage study and research with regard to such phenomena as may be considered of sufficient importance.

5. To organise lectures and courses of instruction upon the different branches of psychical science.

6. To organise, as far as means will allow, permanent laboratories, and a clinic where such researches as may be considered desirable will be pursued by certain of the members.

7. To publish the *Annales de l'Institut Psychique International de Paris*, which will comprise a summary of the work in which members of the Institute have taken part, and which may be of a character to contribute to the progress of the science.

This sketch of the aims of the organisation is but an outline, and will be subject to modification.

This programme was discussed at the Third Meeting of the Paris Congress of Psychology last August.

An account of the discussion is given in the *Journal of the International Psychical Institute*, which may be obtained at the offices of the Society, 28, Rue Serpente, Paris. The advisability of altering the title of the Institute from Psychical to Psychological was considered.

It is felt that the organisation has unavoidably been too purely French, and it is desired that psychologists of other countries should contribute their views with regard to the aims to be pursued in such an institute, and the methods to be followed.

The Committee will be glad to receive contributions on that question.

The first work undertaken by the Institute is the organisation of a course of lectures, in which various aspects of Psychology will be dealt with by Professor Duclaux, of the Pasteur Institute; Professeur Richet, Professor van Gehuchten, Doctor Vogt, Professor Boirac, Professor Tarde, Professor P. Geddes and others.

It has been proposed to organise an English branch, and Dr. Edridge-Green has consented to act as Secretary.

OBITUARY.

Professor Lange.

We regret to record the death of Professor Lange, of Copenhagen, on the 29th May last. Professor Lange's last work was reviewed at considerable length in this Journal by Dr. Friis in the number for last January.

Professor Korsakoff.

By the death of Professor Korsakoff, at the early age of 46, our specialty has been deprived of one of its best and ablest members. He occupied the Chair of Clinical Psychiatry in the University of Moscow, and was the author of many contributions to the scientific literature of insanity. An appreciation of Dr. Korsakoff appeared in the Journal for January, 1898, at the time of the Congress in Moscow, and his latest work on the pathological anatomy of idiocy was presented to the Congress in Paris in August last. We record his untimely death with great regret.

NOTICES BY THE REGISTRAR.

Examination for the Nursing Certificate.

Fifty-seven candidates applied for admission to the November Examination for this certificate. Of this number 45 were successful, 11 failed to satisfy the examiners, and 1 withdrew. The following is a list of the successful candidates:

DERBY COUNTY ASYLUM, MICKLEOVER.

Females: Annie Goddard, Louisa Green, May Hogerty, Dorothy Ann Newton, Alice Ellen Walker.

KENT COUNTY ASYLUM, CHARTHAM.

Female: Frances Fancourt.

KENT COUNTY ASYLUM, BARMING HEATH, MAIDSTONE.

Males: Ernest Charles Else, Joseph Minifie, George Skinner.
Females: Ellen Charity Wynn, Alice Bucknall, Ethel Jane Davis, Ada Selby, Jane Sherwood.

BIRMINGHAM CITY ASYLUM, WINSON GREEN.

Male: Joseph Bird.
Females: Alice Blanche Barron, Annie Lindsay, Emma Lowe, Florence Mary Thompson, Daisy Marion Yarnall.

REDLANDS, TONBRIDGE, KENT.

Female: Constance Margaret Gardner.

THE RETREAT, YORK.

Females: Elizabeth Ann Dilworth, Mary Fisher.

DISTRICT ASYLUM, INVERNESS.

Female: Margaret Catherine Macdonald.

"JAMES MURRAY'S" ROYAL ASYLUM, PERTH.

Male: Alexander Storm Kethel.

Females: Annie Coutts, Maggie Chambers, Jane Welsh Guthrie, Margaret Ann Kellas.

MAVISBANK ASYLUM, POLTON, MIDLOTHIAN.

Females: Agnes B. Hunt, Margaret F. Rutherford.

ROYAL ASYLUM, DUNDEE.

Females: Elizabeth Ross Milne, Mary Fraser Todd, Annie Grant Wishart.

DISTRICT ASYLUM, MULLINGAR.

Males: Thomas Byrne, John Fitzgibbon, William Maguire.
Females: Annie Dolan, Annie Kelly, Annie Molloy, Marcella Pointon.

ST. PATRICK'S HOSPITAL, DUBLIN.

Females: Lizzie Foley, Annie Prewett.

STEWART INSTITUTION, CHAPELIZOD, CO. DUBLIN.

Females: Margaret Emerson, Kate Kearns.

The following is a list of the questions which appeared on the paper:
1. Of what different parts is the skin composed? What does it contain, and what are its functions? 2. What are the signs of obstruction of the circulation, and to what is it most commonly due? 3. Describe briefly the process of digestion, and state the names and uses of the various parts concerned therein. 4. Name the symptoms specially noticeable in respiratory disease? 5. Explain the terms: hallucination, delusion, monomania, and dementia. 6. What do you understand by the emotions? Give examples of disturbance of the emotions which you may have noticed in insane patients. 7. Describe the method of performing artificial respiration. In what cases might its use be necessary? 8. State what precautions you would take in order to prevent the risk of injury to an epileptic patient; (1) during a fit, and (2) in the intervals between the attacks. 9. What information is obtained by taking the weight of patients? 10. If the clothing of a patient catches fire, what would you do?

NEXT EXAMINATION FOR NURSING CERTIFICATE.

The next examination will be held on Monday, May 6th, 1901, and candidates are earnestly requested to send in their schedules, duly filled up, to the Registrar

of the Association not later than Monday, April 8th, 1901, as that will be the last day upon which, under the rules, applications for examination can be received.

NOTE.

As the names of some of the persons to whom the Nursing Certificate has been granted have been removed from the Register, employers are requested to refer to the Registrar, in order to ascertain if a particular name is still on the roll of the Association. In all inquiries the number of the certificate should be given.

EXAMINATION FOR THE PROFESSIONAL CERTIFICATE.

Dr. Arthur William Bligh Livesay, of H.M. Dockyard, Chatham, was successful in a special examination for the professional certificate of the Medico-Psychological Association.

The following is a list of the questions which appeared on the paper.

1. Give the symptoms, pathology, and treatment of alcoholic insanity. 2. Classify and describe the various stuporose states, and give their ætiology and treatment. 3. Discuss the influences of heredity on the origin, course, and termination of mental disorders. 4. Mention the various types of morbid impulse met with in the insane. 5. What symptoms, occurring during an acute attack of mania, would lead you to give an unfavourable prognosis as to recovery. 6. Enumerate the different types of idiocy and imbecility.

The next examination for the certificate in Psychological Medicine will be held in July, 1901.

The examination for the Gaskell Prize will take place at Bethlem Hospital, London, in the same month, and the examiners are authorised to award a *second prize in this competition* should one of the candidates attain such a standard as would justify them in doing so. Due notice of the exact dates will appear in the medical papers.

For further particulars respecting the various examinations of the Association apply to the Registrar, Dr. Benham, City Asylum, Fishponds, Bristol.

PRIZE DISSERTATION.

Although the subjects for the essay in competition for the Bronze Medal and Prize of the Association are not limited to the following, in accordance with custom the President suggests:

(1) The influence of "stress" in the production of mental disease.

(2) The value of electricity in the treatment of insanity.

(3) The condition of the circulation—clinical and pathological—in various forms of mental disease.

The dissertation for the Association Medal and Prize of ten guineas must be delivered to the Registrar, Dr. Benham, City Asylum, Fishponds, Bristol, before May 30th, 1901, from whom all particulars may be obtained.

By the rules of the Association the Medal and Prize are awarded to the author (if the dissertation be of sufficient merit) being an Assistant Medical Officer of any lunatic asylum (public or private), or of any lunatic hospital in the United Kingdom. The author need not necessarily be a member of the Medico-Psychological Association.

AFTER-CARE ASSOCIATION.

The Archbishop of Canterbury will preside at the Annual Meeting of the After-care Association, to be held at Lambeth Palace Library on January 29th, 1901, at 2.30 p.m.

NOTICES OF MEETINGS.

General Meeting.—The next General Meeting will be held on February 14th, at Claybury Asylum.

Northern and Midland Division.—The next meeting will be held on the first Wednesday in April, 1901, at the Leicester and Rutland Asylum, Leicester.

South-Eastern Division.—The Spring Meeting will be held in the Essex County Asylum, Brentwood, in April, 1901.

South-Western Division.—The Spring Meeting will be held on Tuesday, April 23rd, 1901, at the County Asylum, Powick, near Worcester.

Scottish Division.—The Spring Meeting will be held in Glasgow on the 22nd (fourth Friday) of March, 1901.

The Annual Meeting of the Board of the Laboratory of the Scottish Asylums will be held on the third Saturday of January within the laboratory, 7, Hill Square, Edinburgh.

MEDICAL APPOINTMENTS.

Chesson, H., L.R.C.P.Lond., M.R.C.S.Eng., appointed Assistant Medical Superintendent to the Hospital for Insane, Toowoomba, Queensland.

Price, T. A., M.B., appointed Assistant Medical Officer at the Hospital for the Insane, Goodna, Queensland.

Richards, W. Jones, M.R.C.S.Eng., L.R.C.P.Lond., appointed Fourth Assistant Medical Officer to the Middlesex County Asylum, Tooting, S.W.

Starkey, William, M.B., B.Ch., R.U.I., Clinical Assistant, Richmond Asylum, Dublin, appointed Assistant Medical Officer to the Down District Asylum, Downpatrick.

Simpson, Alexander, M.A., M.D.Aberd., appointed Medical Superintendent of the New Lancashire County Asylum, Wimwick, Newton-le-Willows.

Leschen, Henry A., M.B., Ch.M.Edin., appointed Medical Superintendent at the Whitby Falls Lunatic Asylum, West Australia.

McDouall, Herbert C., M.R.C.S., L.R.C.P.Lond., appointed Senior Medical Officer at the Hospital for the Insane, Callan Park, New South Wales; vice R. J. Millard, M.S., Ch.M.Syd.

Mackie, William James, M.D.Brux., L.R.C.S., L.R.Q.C.P.Mel., appointed Medical Officer of the Lunatic Asylum, Nelson, New Zealand.

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Victoria, Queen and Empress,

DIED 22 JANUARY, 1901,

in the Eighty-second Year of her age

and the Sixty-fourth Year of her reign.

Through her vast Empire and through the world swept a wave of sorrow, deeper and greater than had ever been known, when the wire flashed the sad tidings. True sorrow filled the hearts of her own People, and true regret and sympathy came from all Nations and Races of men.

It was not only that death had taken the sceptre from the hand of the greatest Ruler in the world, a hand which had wielded it so worthily and so long, but that the Ruler was a true and noble Woman, a very Mother of her people, who drew near to them in all womanly sympathies, and gained their hearts by showing them her own. Nor was the bond one of mutual affection only, for they admired and honoured her wise statesmanship, her constant devotion to duty, her deep interest in all things intellectual, scientific, and philanthropic, which added to human knowledge, human progress, and human well-being.

Other lands envied us our Queen. Other Rulers felt her charm and power, and came to share our sorrow when we laid her to rest. Britannia's Queen, as befitted her, sailed to her rest through a lane of great battle-ships, which each in turn saluted the dead Queen as she passed with the deep-tongued reverence of the minute-gun. Not less eloquent was the solemn silence of the countless multitudes who looked with sad eyes and hearts on the mournful pageant in the Metropolis. Not less pathetic was the family procession to Frogmore, with its tender "touch of nature that makes the whole world kin."

She rests from her labours,
And her works do follow her.

To His Most Excellent Majesty,

King Edward the Seventh.

May it please Your Majesty,

We,

The President, Council, and Members of The Medico-Psychological Association of Great Britain and Ireland,

being Medical Men and Women in all parts of Your Majesty's Dominions, who are interested in and professionally responsible for the care and treatment of the Insane, respectfully tender to Your Majesty our dutiful sympathies and condolence in the great bereavement which Your Majesty, Your Illustrious Family, and the Empire at large have sustained by the death of Our Late Beloved Sovereign, Her Most Gracious Majesty

Queen Victoria,

whose pure exalted life and noble character so justly endeared her to her people. At all times she watched over their sorrows with tender solicitude, and we remember with gratitude that it was during her long and beneficent reign that the treatment of the mentally afflicted became firmly based upon those sympathetic, humane, and enlightened principles which have now obtained universal recognition and approval.

We humbly offer our congratulations to Your Majesty on ascending the Throne of this great Empire, and tender the assurance of our unswerving loyalty and devotion to Your Majesty, whom we pray God to Guide and Preserve long to reign over us.

FLETCHER BEACH, President.
H. HAYES NEWINGTON, Treasurer
ROBERT JONES, Secretary.
H. BENHAM, Registrar.

At the General Meeting of the Medico-Psychological Association held at Claybury Asylum on the 14th February, 1901, before beginning the business

THE PRESIDENT

said it devolved upon him to make special reference to the great loss which the nation had sustained by the death of our most sovereign lady,

HER MAJESTY QUEEN VICTORIA.

That calamity affected not only ourselves, but every subject in the Empire, and, indeed, the whole civilized world. Lord Lister only a few days ago said that the late Queen was one of the greatest supporters of their profession, and he, the President, had many times said that medical psychologists were among the most loyal and dutiful of her subjects. The Queen was not only the mother of her family, but also the mother of her people. She partook in every joy and in every sorrow which affected them. They all remembered when our soldiers returned from South Africa that the Queen was among the first to go and console them in their illnesses and injuries. During her Majesty's reign a humane system of managing the insane had become prevalent in her dominions, as elsewhere; and among all classes of her people the Queen's nurses were now engaged in aiding the sick.

As medical psychologists, it now devolved upon them to give expression to their sorrow, and to assure the King of their loyalty. With that view the Council had drawn up a resolution for submission to the meeting, which he would read and which would be suitably engrossed on vellum for transmission to His Majesty.

The Address, which is printed on the opposite page, was adopted in silence, all present standing while it was read.

Mental Disorders dependent on Toxæmia. Part of an Address delivered by SIR DYCE DUCKWORTH, M.D., LL.D. Edin., F.R.C.P.Lond., at the General Meeting of the Medico-Psychological Association, London, November 21st, 1900.

(From the *Lancet* of November 24th, 1900.)

I propose in this address to call your attention to some phases of mental disorder which depend on toxæmic states These are now differentiated by the alienist, and it is only in recent times that their true nature has been unfolded. They have been long recognised as clinical features of disease, and the sources of them are as varied as are the separate toxic elements which induce them. Progress in physiological chemistry and bacteriology has now furnished us with the means to explain these conditions. The origin of these toxins is at least threefold. They may be generated in the body (auto-intoxicants), or by the malign working of microbes introduced from without, or they may arise by impregnation with organic poisons, or yet again result from the habits of alcoholism, chloralism, cocainism, and morphinism. In the majority of cases of insanity I suppose it will be conceded that there is a hereditary or inborn predisposition to the disorder, an instability or a tendency to this cerebral degeneration which may remain latent until conditions arise which are potent to elicit the breakdown. In the class of mental disorders we are now to consider there may or may not be this inherited fault of brain tissue. In many instances of toxic insanity we have to deal with persons who are already predisposed to mental instability, but in other cases a previously normal brain may be so damaged by toxic influences as to manifest aberration. We have long recognised the toxic effects on the nervous system of the altered metabolism induced by renal inadequacy in Bright's disease in the varied forms of uræmia, in that strange variety of autotoxy due to inability of the hepatic and muscular tissues to hold carbohydrate in reserve, resulting in diabetic coma, and that variety which depends on acute atrophy of the liver. We can now understand how these auto-intoxications act in disturbing the harmony of intimate brain-cell metabolism. Their effects are as certain as are those of poisons directly

introduced by the mouth or under the skin. The chemical functions of the brain cell are disordered in precisely the same manner. In the ordinary practice of medicine we are familiar with states of delirium and mental aberration in the course of the various fevers and in pneumonia. Recognising these as infective disorders we now know that we are dealing with the toxic effects of invading parasites, and that amongst the manifold expressions of their presence are nervous or brain symptoms. These are frequent in pneumonia, and strangely so when the pulmonary apex is involved. The reason for this is to me inscrutable, and I can only conceive that it results from some special local nervous relations which have hitherto escaped the recognition of the physiologists. With respect both to pneumonia(1) and the various fevers, I have to add that a careful inquiry in cases where grave nervous or mental symptoms have supervened, has almost always revealed the existence of personal or family neuropathic taint. Puerperal insanity occupies precisely the same position, and inquiries in these cases show that about one half of them occur in women of neurotic or insane proclivity. Toxic influences naturally affect them more readily and with greater gravity.(2) The insanity of lactation probably owns a different cause, and may be attributed to debility and imperfect nutrition, acting probably in many cases upon an originally unstable brain. What has been termed "post-operative insanity," due to infective influence, together with shock or exhaustion, and occurring within a few days after operation, may be similarly classified, although Mr. T. C. Dent is of the opinion that heredity of brain weakness plays but a small part in these cases, and that some of them apparently result from the influences of the anæsthetic agents employed or from iodoform impregnation.

No clearer evidence of the influence of auto-intoxication is afforded than that which results in aberrant cerebration in some cases of gout. The patient generates his own toxin in his tissues, and the effects are recognised in the form of stupor, delirium with delusions, and excitement, sometimes as melancholia, such symptoms lasting occasionally for days or for many weeks, and yielding to some overt metastatic gouty development, generally articular, or to an anti-gouty medication, with complete recovery. In enteric, typhus, and rheumatic fevers, erysipelas, cholera, influenza, diphtheria, and

scarlet fever, we have examples of distinct toxic infections, producing their specific lesions, and amongst them damage to cortical brain-cells leading to various grades of mental aberration, some of these ultimately leading to serious results, especially in cases where any predisposition to brain degeneration or insanity exists. These conditions were brought to the notice of the profession thirty-six years ago by Sir Herman Weber in a careful paper(3) in which he described the peculiarities of the mental states observed after the crisis had occurred in most of the acute diseases just mentioned. He laid much stress on the condition of shock and collapse which so often accompanies crises, and on the associated cardiac debility which doubtless plays a considerable part in the phenomena. The time was not then ripe for the suggestion that toxic influences were concerned. The slow recovery, especially after prolonged attacks, with relapses, of enteric fever, is due to the extreme wasting of the body generally, and the starvation of brain cells in particular. I would mention the peculiar loss of speech, or inability to speak, which occurs in some of these cases, several weeks (from five to eight) elapsing sometimes in which not one word is uttered.(4) We may notice a degree of this during the active stage of chorea, which I have long distinctly regarded as due to rheumatic toxæmia in the majority of instances and a consequent perverted cortical brain-cell metabolism.(5) Additional proof in support of this view has lately been afforded by the careful researches of Dr. F. J. Poynton and Dr. A. Paine, which have demonstrated apparently the specific diplococcus of true rheumatism.(6)

The malign cerebral distempers due to influenza are very definite, and have been well studied in the last epidemics of this plague. We find that all forms of insanity may result from it, and although there is reason to believe that in most instances of their occurrence there is an underlying neurotic proclivity, it is certain that the specific influenzal toxin affects the nervous system very gravely in most cases. According to Dr. John Turner all forms of acute mania are probably of toxic origin, affecting widely-spread areas of brain tissue, and he finds what he considers additional evidence in favour of this view, that there is commonly associated in fatal cases a fatty degeneration of the liver.(7) The condition of myxœdema sometimes leads to brain symptoms, such as instability, delusions, mania, and

melancholia, the result both in adults, and in the form of sporadic cretinism, of altered metabolism from deficient thyroidal influences. General paralysis is now regarded as coming into the category of auto-intoxications. Syphilis, as its common antecedent, does not, however, provide the toxin, and we must therefore view its part in the ætiology as leading to progressive degenerative nervous changes, which in turn so modify the intimate metabolism of the tissues as to set free toxic elements. Alcoholic and other excesses are also antecedent in other cases, and sometimes lead impregnation is reckoned as the ætiological factor. In cases of juvenile general paralysis congenital syphilis figures to the extent of at least 80 per cent., according to Dr. F. W. Mott, and he regards the malady as essentially due to the effect of syphilis on the germinal plasms of one or both parents. Jaundice, as an autotoxic condition, is accompanied sometimes by mental depression and hallucinations. I have, however, known xanthopsy to occur without any delusions in catarrhal jaundice.

We may next refer to toxæmic states induced by impregnation of the system with certain organic poisons, of which lead is certainly the most frequent and important source. This subject has been very fully studied. In many cases of saturnine encephalopathy we have to deal with compound conditions the result of possible syphilitic taint, together with chronic alcoholism. The fact that lead impregnation is related to the induction in many cases of gouty manifestations still further complicates the problem, and no less, too, the damaging effect of it on arterial and renal tissues has to be fairly considered in all such instances. The researches of Nissl, Oliver, and Robert Jones and others have now made plain for us the nature of the damage wrought upon the nervous system by this metal. We have to conceive that by degrees a saturation occurs, and chemical changes proceed in the brain and ganglionic cells whereby new compounds are formed within them. We might almost regard these, I think, as a formation of a chemical lead soap or a molecular combination of neutral fat with a saturnine base. Again, we have to bear in mind the insoluble salt formed by uric acid with lead. Albeit the changes noted may not always be due to direct chemical influence, for saturnine encephalopathy may occur and no lead be detected in the brain, as shown by Oliver. Like other

poisons, lead has a selective power in alighting upon and damaging tissues. Interference with normal metabolism in the cellular plasm, either by direct poisoning or by molecular chemical compounds of a fixed character interfering with function, may well lead to secondary and sclerous changes in the neurons. These, again, may be noxiously affected by freshly-formed autotoxins resulting from such impaired cellular nutrition. We are not now concerned with the specific forms of saturnine neuritis which are well ascertained to exist and to produce characteristic symptoms. The whole question of lead encephalopathy is therefore a very complex one. It is, however, certain that many cerebral distempers may issue from it, such as mania, melancholia, dementia with epilepsy, and stupor amounting to coma. Some of these conditions occur after very short exposure to lead impregnation. Whether general paralysis is ever strictly due to the specific influence of the poison is not yet quite determined. To be certain in the matter one must be able to eliminate the possibility of syphilitic and alcoholic influence. I am disposed to agree with Dr. Savage that saturnine taint is at least capable of inducing this condition and may do so.

With greater frequency than lead impregnation, we have to deal with alcohol as a poison introduced from without. We recognise the abuse of this as an active destroyer of nervous matter and vascular textures, and recent researches plainly indicate the damage done to the brain-cells and neurons and the perverse metabolism which is entailed by it. The conditions displayed under the varieties of subacute and acute alcoholism with delusions, mania, epileptiform attacks, and dementia are unfortunately only too familiar to all of us.

Lastly, we have to note the mental aberrations due to the vicious use of agents such as morphine, chloral hydrate, paraldehyde, ether, and cocaine, and to remark concerning all of them that their abuse increases in frequency with what we are pleased to call the advance of knowledge and civilisation. That our profession is in part to blame for some of this mischief I entertain little doubt. The resort to these and similar agents under conditions which hardly justify their employment, and which might often be met by other and simpler therapeutic measures, has often led to habits of secret intoxication by patients who indulge in them. The frequent handing over of

hypodermic syringes and these poisons to nurses is also to be blamed. The too ready sale of such agents by pharmacists and other tradesmen is a matter so serious that it now calls for some special legislation to restrict it. The danger lies in the special seduction of such agents for women and persons with unstable brains, and no care and precaution can be too great in prescribing for them. We are all familiar with the disastrous results of yielding to the cravings for hypnotics and sedatives, and know too well our impotency to do any permanent good in the great majority of such cases. We certainly find that the average patient is singularly intolerant of any pain in these days, and that he clamours for relief at any cost. Our forefathers and foremothers had to suffer more than we do, and I am not sure that they were always the worse for it. They certainly escaped the modern terrors of morphinism, chloralism, and cocainism, and the women of those days bravely endured their catamenial discomforts without recourse to stupefiants. I think a good deal of plainer living and higher thinking would avail much to abolish the too common resort to anodynes which unhappily now prevails so largely in several strata of society both in this and other countries.

In conclusion, we note that the various toxic agents which gain admission to the circulation exercise, as we might expect, their specific actions upon the several tissues of the body and manifest elective affinities for particular systems of neurons. We find in brain diseases, as in other morbid states, that the symptoms are the result not seldom of mixed infections, and are not always to be ascribed to any one toxin. There is often, indeed, a vicious circle of conditions, as is well seen in some cases of general paralysis, lead poisoning, and alcoholism, where several factors are clearly combined in the production of the successive phenomena, in such a series as primary cell intoxication, with the result of perverted nutrition and plasmic metabolism, with the production of new toxins, *e.g.* choline and neurine, and decay of their systems of neurons, the exudation and the subsequent sclerosis on the part of the vessels. The student of morbid cerebral anatomy has now to reckon with all these conditions, and the clinical psychologist has to determine, if he can, the relation of them to the different forms of mental distemper. Those fields of study remain as yet much unexplored, but they are already being occupied by

stalwart investigators, amongst whom I will claim a distinguished place for our countrymen Mott and Bevan Lewis. The knowledge already gained respecting the insanity of toxæmia cannot fail to prove useful for the purposes of treatment. We readily recognise how entirely preventable are most of these. Poisoning by lead, syphilis, alcohol, morphine, and fashionable anodynes is certainly preventable. The toxins formerly attendant on surgical interference are now practically abolished, while methods of treatment are gradually coming into use which encourage us to hope that we may overcome, or at least modify, the malign effects of such as induce the several infective diseases. We can now better understand than we did how purgatives and eliminants are often of use in dispersing some forms of mental distemper.

The views which now open out before us in respect of the pathogenic relations of toxæmic insanity would almost appear to justify a return to the older conceptions of humoral pathology. I am not concerned in this matter to take up any particular position dogmatically, either as a humoralist or purely neural pathologist. I think that our duty is to find the facts, and then to apply them in building up our pathological doctrines. As time goes on it becomes necessary to keep an open mind, and to change our views accordingly as modern research throws light on abstruse points. In the meantime I will venture to suggest that for the conditions we have been considering to-day we may consider them as dominated by a pathological doctrine to which we may fairly apply the term "neuro-humoral." By solid advances of knowledge, and by revelations of fresh aspects of truth, legitimate medicine alone makes progress. Many of you are now engaged in building up on sure foundations an important part of the great fabric of medicine, and some of us who thirty years ago imagined that small progress was being made with this particular work are now satisfied that it is assuming in your hands stateliness and dignity, and that it no less affords evidence of durability. I have ventured to address you to-day from the standpoint of general medicine, because general medicine most surely includes your special work. It would be bad for medicine and worse for you were such not the case. Some of us, indeed, could wish we were drawn closer together clinically in our great hospitals, where our students commonly see little else than the

beginnings or the transitory phases of mental aberration. But we urge them to fill up this gap in their education by attendance on lectures and practice, and in my own school we have full equipment and arrangements for this purpose. Let me add, lastly, that we fully recognise the debt which psychological medicine in this country owes to your Association, and we regard with full sympathy and interest your energy and your constant progress.

(1) Cerebral symptoms in pneumonia may be dependent on grosser lesions than those due to brain-cell intoxication, as when pneumococcal meningitis forms part of the disorder.—(2) I am fortified in this opinion by Dr. Savage's experience, which affords proof that persons neurotically disposed are more than others vulnerable to the influence of specific infection.—(3) *Transactions* of the Royal Medical Chirurgical Society of London, 1865.—(4) St. Bartholomew's Hospital *Reports*, 1885, vol. xxi, p. 106.—(5) *Vide* my paper in the *Transactions* of the Eleventh International Medical Congress at Rome, *La Natura Reumatica della Corea*, vol. iii, p. 354.—(6) The *Lancet*, September 22nd, 1900, p. 861.—(7) *Brit. Med. Journ.*, September 12th, 1900, p. 808.

Discussion

At the General Meeting in London, 21st November, 1900.

The President.—I am sure that you will all agree in a hearty vote of thanks to Sir Dyce Duckworth for this most important address. It is a pleasure to us to have eminent physicians coming amongst us from time to time to aid us in breaking down the barriers between the general physician and the specialists which have too long existed. We welcome the distinguished guests present among us to-day, and I call on Sir William Gowers to favour us with his remarks on the address which we have just heard.

Sir William Gowers.—I can only express the very great interest with which I have listened to Sir Dyce Duckworth's most admirable address, which covers the ground so completely, that I feel unable to make additions to it.

Dr. Mott.—Sir Dyce Duckworth has been kind enough to refer to my work, and when a man occupying his position in the profession refers to a younger man's work as he has done to mine, it is a great encouragement. I thank him heartily. I quite agree with all that Sir Dyce Duckworth has said, and I am sure this Society has listened to the outcome of his long experience in practical medicine with great interest and with great profit. I have lately been studying the effect of poisons upon the nervous system, partly experimentally, partly pathologically, and feel that if we are to obtain results, we must, first of all, as Sir Dyce Duckworth has pointed out, consider the physiological aspects of the subject. Poisons, such as the alkaloids, have a selective influence upon the nervous system. Strychnia, for instance, has a special affinity for the spinal motor neurons; so also has the poison of tetanus; and rabies shows its selective influence by picking out even particular spinal motor neurons or their homologues. It does not seem to matter much whether there is a neuropathic or a psycopathic tendency; tetanus and rabies act upon all irrespective of these tendencies; but usually there are many factors at work, and I think the more we study disease the more we recognise a principal factor and a number of contributory factors. It is the contributory factors which generally cause the mental affection. The more insanity is studied the less doubt exists that heredity plays the most important part in causation—a less important part, I think, in alcoholic insanity and general paralysis than in other forms.

I consider that stress very often determines the effect on the nervous system where a toxin alone would not do so. A man who uses his brain or a certain

part of the nervous system excessively will be more likely to suffer degeneration of that particular part. Professor Edinger has called attention to this, and I have lately endeavoured to show, by collecting a large number of cases of tabes dorsalis, that his inferences are correct. A great majority of cases of locomotor ataxy occur in men who use their legs a great deal, such as postmen, engine-drivers, etc. In those patients who have manifested the disease in the arms first, I have found that these limbs have been excessively used. Professor Edinger has endeavoured to prove this by experiments on animals. When he injected rats with a poison which produced hæmolysis, and then bled them to produce excessive anæmia, no degeneration occurred; but if he put these rats in a wheel-cage, so that they were constantly compelled to use their legs, degeneration of the posterior columns of the cord ensued.

In Egypt, where hashish poisoning is very common, I believe that there is a form of insanity in which time and space are greatly increased, showing a special selective action on the kinæsthetic centres of the brain. Again, absinthe has effects somewhat like alcohol, but it also produces convulsions. If injected into animals epileptiform fits occur. According to the French alienists it is one of the common causes of epilepsy. I lately had the honour of addressing the Medical Society of Nottingham on the selective influence of poisons upon the nervous system, and then gave a number of such illustrations.

There are three factors in nearly all cases of mental affection—namely, the poison, the stress, and the inherited tendency to a psychosis or a neurosis. Physiologically, the nervous structures are either increased in excitability or depressed in excitability. We know that some poisons given in large doses will, although they are exciting poisons, act in a depressing manner; but if given in small doses, will act in an exciting manner. The converse is also true; so that very much depends upon the quantity of the poison, and upon the individual in whom the poison is acting.

Dr. SAVAGE.—I feel that delirium is to the general physician what acute mania is to us, and there is a certain number of cases in which toxic influence should be suspected, although as yet the toxin has not been traced. Acute delirious mania is strikingly similar to acute alcoholism, severe pneumonia, typhoid, etc., and one feels sure that some observer will yet discover what is the auto-toxin which gives rise to the first-named. I remember, many years ago, Sir Samuel Wilks saying, "I wonder whether it is true that the neurotic person is more liable to delirium in fevers than others." I took the opportunity of going to several of the fever hospitals for information on that point, but failed to confirm it, owing to insufficient records. Still, it seems highly probable that the neurotic individual should be the more delirious with the rise of temperature. A great number of puerperal cases have a septic origin, and I think that anything which will produce delirium in an ordinary person will, or may, produce insanity in the neurotic.

Dr. GOODALL.—Although, as a rule, no bacteria are found in cases of acute delirium and delirious mania, yet they have been demonstrated in some. In those cases subsequent to fevers, like pneumonia and influenza, cocci have been present. It has occurred to me that such conditions as convulsive seizures in general paralysis might be due to the action of bacteria. I have found diplococci in one case of hæmatoma auris. In regard to conditions such as cellulitis, erysipelas, and fevers, which produce amelioration of psychoses, I have long been of opinion that the improvement is due to some circulatory toxin, and not to any counter-irritant action. As regards treatment, it is recommended by French observers that normal salt solution should be repeatedly injected to dilute the toxins and promote excretion. At the Italian Hospital in Constantinople a good result was obtained by the injection of antistreptococcic serum in a case of puerperal insanity. I should be disposed to try that in future.

Dr. MERCIER.—Toxæmia is the only agent which we certainly know will produce insanity: and it is not at all unlikely, I think, that eventually we shall find toxæmia at the bottom of every form of insanity. When we administer alcohol in sufficient quantity we render the person insane, and we find the degree of insanity is in proportion to the amount of alcohol administered. Dr. Mott has suggested that there are three agents—poison, stress, and heredity,—in every form of insanity. No one has taught more assiduously than I have the influence of heredity in insanity; but I would ask, as I have asked before, how it is that

heredity acts. It is exceedingly difficult to imagine that insanity is actually transmitted through the germ-plasm, or what it is that is transmitted from parent to child which appears as insanity in the offspring. Looking at the facts that the insanity produced by alcohol is practically identical in its mental and physical symptoms with the insanity of general paralysis, that certain cases of puerperal insanity are unquestionably due to sepsis, and that, while other cases are not known to be due to sepsis, yet the distinction in symptoms between the septic cases and those not known to be septic cannot be drawn; there is a presumption that the so-called aseptic cases are really septic, or at any rate toxæmic. Besides, as it does not necessarily follow that toxæmia shall be accompanied by pyrexia, it seems to me that we cannot in any case exclude toxæmia as a cause of existing insanity.

With regard to stress, I think that Dr. Mott would admit that it is only localising in its influence. That was practically his contention, regarding it not so much as a cause of insanity as of the way in which the insanity might manifest itself.

With regard to heredity, we used to think that consumption was an hereditary malady, and still the hereditary element is not eliminated. There are families more prone to be tuberculous than other families. It is undoubted that something is transmitted from parent to offspring which renders the offspring more liable; and yet we know that it is not tuberculosis which is inherited. Now, may not that be the case in insanity? May it not be that it is not insanity which is inherited; that it is not even nervous instability which is inherited? May it not be that what is transmitted from parent to child, in cases in which insanity occurs in both parent and offspring, is an inability to combat and eliminate the toxin? That might account for cases such as Dr. Savage has mentioned, in which the insanity or exaggerated delirium is liable to occur in persons who are unstable in nervous organisation. In regarding the causation of insanity we should not exclusively concentrate attention upon the nervous system, but should remember, as Sir Dyce Duckworth has indicated, that this is a question of general medicine. We must not wrap ourselves up too closely in our speciality; we should take wide views, and regard insanity as a malady, not of the brain alone, but of the whole man; it is a disease of the whole organism, and it can only be properly understood and properly dealt with when so regarded.

Dr. BRISCOE having referred to the good results of treatment in cases of mental disorder dependent upon the accumulation of fæcal matter in the intestinal canal, by the administration of purgatives, pleaded for a systematic examination of the fæces, such as was usual in regard to the urine.

Sir DYCE DUCKWORTH, in replying on the discussion, said, the criticisms which have been passed upon my address have been so kindly and gratifying that they have given me little to reply to. With regard to the element of stress, I take it that the effect of stress in determining the alighting of any toxic matter which may be the cause of insanity, is simply a condition producing a *locus minoris resistentiæ*. The same thing happens in other diseases, such as gout. Gout lies in a weak over-used part, the process is determined to that part as a *locus minoris resistentiæ*. Dr. Mott and Dr. Mercier opened up the vexed question of inheritance. That is a matter of enormous importance, and of very serious significance in medicine. It concerns us all deeply, whether it is the heredity of acquirement or the heredity of tendency. I think, in the meantime, it is safest to speak of inborn traits and conditions, and they were very well described by Dr. Mercier. I cannot quite take his view when he speaks of the quality of brain which is inherited being one which is feeble in the power of resisting attacks, just as we regard a person who is said to be of a consumptive inheritance as one who is specially vulnerable to the ravages of the tuberculous microbe. The same thing may be said with respect to rheumatism. Some people cannot be rheumatic, others cannot resist the toxin of rheumatism. Those are specialised peculiarities, personal peculiarities, and we may fairly conceive that those qualities of tissue may be passed on from parent to child.

I hope that in this matter of toxæmic insanity none of us will outrun the facts which justify the opinions expressed to-day. We must be careful not to say now that all insanity is toxæmic. It may be so, but we must not dogmatise too much.

I think that we are by degrees building up a knowledge of the pathogenic nature of insanity, and that there is a chapter in psychological medicine in which toxæmia takes a very large part.

The Use and Abuse of Travel in the Treatment of Mental Disorders. A Paper read before the Medico-Psychological Association at the General Meeting, London, 21st November, 1900. By GEO. H. SAVAGE, M.D., F.R.C.P.

I need hardly apologise to you for my appearance once more before you as a reader of a paper, yet I think it well to give you my reasons for selecting this subject for to-day's discussion. For years past I have been feeling more and more strongly that travel as treatment was being carried too far, and having often in private expressed this feeling, I think it right to assert my belief here, fully recognising that I may be looking at the subject from a wrong standpoint, and being quite ready and willing to learn by the experience of others. I recognise in myself a tendency to believe in my own experience, and thus I may be warped.

First, I was struck by finding that not one class of neurotics, but all, I might almost say, indiscriminately were sent on voyages. This necessarily refers to those who were able to afford the luxury of travel, though often I saw people sent away who had to draw on their slender capital to provide the means. I seemed to see a double column with mental diseases written on one and travel on the other, after the fashion of the industrious but youthful hospital student, who, notebook in hand, follows a teacher and writes down the name of the disease from the bed-card, the name of the attending physician next, and the drugs prescribed last, thus taking it for granted that the *disease* was being treated, not a person. So my doubts grew apace, and I was keenly alive and on the look-out for the effects of these prolonged voyages; the result I now place before you.

The reasons for sending patients abroad may be summed up as follows:—Firstly, to get rid of them for a time. Most of us from life-long experience know the irksomeness of looking after persons who are suffering from the slighter forms of mental

disorder. The friends and relations, as I shall point out later, are in many cases willing to send the sufferer away, anywhere and anyhow, so that no social stigma may arise in consequence of their having an insane relative. And not only is the patient sent away to gratify this wish, but the family doctor is often driven nearly to desperation by the neurotic friends, and feels that if the invalid remains he will run a chance of becoming a nervous patient himself. The first group, then, must, without any masking of facts, be considered the one in which patients are sent away to be out of sight.

Next we have a large number who are sent away to avoid certification. Both doctors and friends recognise that there is mental disorder of a serious kind, but they will not consent to have the patient sent to an asylum, and, what is more troublesome, they will not consent to have him *certified*, though the symptoms are such that no self-regarding practitioner will accept him uncertified. The certifying is an awful bugbear; *lunatic* is one thing, but *certified lunatic* is quite another. The Lunacy Law of 1890 added certain duties, and had a few good points, but the legal minds guiding its birth were proud of its weakest feature—the magisterial interference. This interference compels many persons to travel. No sooner has the consultant given a definite opinion as to the insanity of a patient than the friends ask, "What about travel?" This second plea for travel treatment is similar in many ways to the first, but the present state of the law makes it more justifiable than the first plea.

The last, and to us the most important, reason is, travel as a medical measure for definite treatment of definite morbid conditions. This group naturally divides itself into two: in the first we have patients who are suffering from bodily disease which, insanity apart, would be benefited by travelling. One sees cases of phthisis, asthma, gout, or chronic rheumatism, which would benefit by change and travel, and such becoming insane, whether as a result of the original disease or not, might be expected to gain by this treatment. I have thus seen good results follow a voyage to Teneriffe or Madeira in patients who were melancholic and suffering from bronchitis or phthisis. Similarly, in the depression following influenza, with some of its pulmonary and nervous sequelæ, good has resulted.

The other subdivision of this class contains such patients as

are sent away on voyages and prolonged travel because of their mental disorder, and for nothing else. This group, so far as such treatment being essential, is, I think, really very small. These patients are sent travelling for travelling's sake. They are sent to have change of air, fresh scenery, and constantly moving surroundings. It will be my duty now to see what the effect of such conditions is on the mental sufferer. In this, as in so many other instances, the habits, fads, or fancies of the medical attendant influence his recommendation, whether as to travel or to diet. The stay-at-home will not advise travel; and the amateur yachtsman thinks there is nothing like sailing. This reminds me of the medical man who, having become habituated to the use of morphia, soon regarded the drug as almost harmless, and ordered it in poisonous doses for his patients. We have, therefore, to be careful not to inflict our pet vice on those who consult us.

I felt some difficulty after starting this paper in defining travel, and now that I have thought over the matter, I am not less in a difficulty, for though a long voyage is the ideal of travelling, yet shorter yachting trips are to be considered, and the general mixed globe-trotting must not be forgotten; while the Americans have introduced the week-long journeys across their continent as useful and interesting nerve stimuli.

I shall incidentally refer to the ordinary forms of travel, but as a rule I shall stick to the sea voyage of shorter or longer duration as the ideal. I take it that the points which are aimed at in travel are to change the whole environment, and to produce many varied and fresh sensory impressions, these latter being highly important, the object being to cause a diversion from past or present painful ideas and feelings, or else to stimulate the general nervous system by the recurring fresh stimuli. I fear I shall have to say that, even if such results follow, I am inclined to doubt their utility in many of our insane patients. Sea voyages, if of some duration, undoubtedly provide, under favourable conditions (which, by the way, cannot be always ensured), rest and removal from the daily worries of the business or family, and from the old surroundings. Such are desiderata in many forms of nervous exhaustion; but there is all the difference in treating merely nerve exhaustion as contrasted with mental perversion. Most of those who have had experience of Weir Mitchell treatment

have been grievously disappointed to find that when the insane line has been crossed, little or no good, but often harm, is done by the seclusions, feeding, rest, etc., of this treatment; so we must remember that what is good for weakness is not necessarily good for disease.

In dealing later in more detail with the cases which should or should not be treated by travel, one has to consider not only the patient and the form of mental disorder, but also the cause of that disorder. Thus while a patient suffering from depression amounting to mild melancholia, due to some moral shock or local disappintment, a love affair, or a failure in an examination, may be properly treated by a voyage, I do not think the melancholiac of the deeply religious type, who has slowly built up a belief in his eternal damnation, would derive any benefit therefrom. Let it be considered, then, that the cause of the disorder must affect the advice as to treatment.

To proceed, now, to the more definite instructions. I would protest against a very general practice of sending persons suffering from true melancholia for voyages, and this I do on two grounds, though one would be enough; first, I do not find that they benefit by such treatment; next the increased danger of this treatment is great. Patients suffering from mental depression are in a state of mental tenderness, they need rest much more than action; the old plan of stirring up is in my mind as pain-begetting as the old treatment by the rod. We have raised a protest against appealing to painful skin impressions as stimuli, but we are pleased to give and to encourage the giving of any amount of painful impressions to the over-sensitive nervous system of the melancholic patient. Most of us have suffered from temporary depression due to bodily illness, such as influenza; and I wonder if we wished to be stirred up, or if you think we would have been assisted in recovery by early activity. No! I believe rest is the best treatment for most cases of melancholia, at least in the earlier stages. I think the Commissioners in Lunacy were not free from blame in the praise they used to give, in my asylum days at least, to the asylum at which they found few or no patients in bed; surely most of the melancholic patients are sufferers in body as well as mind, and require rest rather than stimulation. It is thought by some that travelling leads to sleep in the sleepless. Sea voyages in some cases doubtless assist, but

in many others I find the sleepnessness is most distressing on a voyage. A ship at sea may or may not be a quiet place; what with engines and foghorns I can say I have had very disturbed nights at sea. Again, to the nervous the dangers of those who go down to the sea in ships are very present. Therefore I can see no special advantage in the sea voyage, and I do see special dangers. I have suggested in years gone by that instead of another huge asylum, a large ship should be taken as an experiment for cruising in summer seas, but then the precaution of having torpedo netting always out would be necessary. Suicide is doubtless suggested by sea voyages, just as precipitation is by heights, and many a melancholic sufferer has found rest in an ocean grave.

If sea travel is not a generally good treatment of melancholia, I can only say more emphatically that the railway travelling or the sojourn in foreign cities is much worse. I shudder when I think of the misery of patients I have known dragged from one so-called pleasure to another, from being driven early about gardens and parks, and later being made to sit out plays or operas.

When Abernethy suggested that the man who still tried to move his elbow, though it pained him, was a fool, I think the person who makes the melancholiac rush from dissipation to dissipation is a brute, an ignorant brute. A sailing yacht is all very well for the few who can afford it; but here the danger of suicide is even greater, and, besides, another danger is increased; the watching of such a patient on board ship to be of any service must be so constant as to be irksome, thus causing the patient to say, as one did to me, that he would not have been half so determined on suicide if he had not been always surrounded by persons who brought the idea before his mind by their supervision. As a general principle, I would say that if we believe every melancholiac should be treated as a possible suicide, we should rarely send them travelling. Some of the lighter cases of weakness of will, indecision, and doubt are improved by complete change, and by the monotony yet interest of a voyage, and when some persons, who having been used to travel in their normal days, show signs of mental weakness or depression, voyages are useful. I believe, too, in the great utility of voyages and travel in patients who have recovered, or are convalescing

from mental disorders. It is well that there should be no rude awakening from their sad dreams; let them slowly come to themselves; let them have time to get confidence before they return to their old work and old surroundings. But here, again, I must say that there is increased danger in sending such persons away. I believe as many suicides occur during convalescence as during the period when the symptoms of insanity are well marked. I could record the history of many patients who, having been sent on leave or discharged recovered from asylums, have killed themselves shortly after. The friends of sufferers from adolescent insanities are all hopeful that the grand tour will establish health of mind and body. I hoped I should find this to be the case. When at Bethlem I had no chance of sending patients on such trials, but now I see the weakly girl or boy go abroad, only to come back weaker in mind or morals. These young cases may be sent abroad to get them out of the way, but their future is not a bright one. They are parallel to the "ne'er do wells," who are sent to our colonies, where perhaps they pave the way to civilisation, as rubbish helps to form our city roads. They are crushed into or out of shape.

I need hardly speak against sending excited or maniacal patients travelling, but I see grave and serious consequences arise from sending persons who are classed under the wide label of hysteria on trips. They are frequently excited, and the mild symptoms due to slight loss of higher control pass into true and violent manias. As to delusional cases, these persons, with their exaggerated self-consciousness, appropriate every fresh impression as directed against them, so that, in my opinion, the fewer new and strange impressions such people have the better. Yet I meet with such persons being sent to travel. I will admit that in some cases of harmless obsession, of simple monomania, if I may use such a term, travel passes time, and does no positive harm. In persons suffering from partial dementia, if due to physical causes, such as fever and the like, good may follow travel if the stirring up is left alone.

The group of cases which I think suffer most of all are the general paralytics. Such, in my opinion, ought never to be sent abroad. If you are in your mind sure the patient is suffering from this disease, if he has both mental and physical signs, and if there is no true history of drink as a cause of the

excited state, then never send him travelling. I know friends will be hard to persuade, and will almost certainly over-ride your opinion and judgment; but you must enter a protest. It is certain that in states of remission, when it is desirable to keep the patient away from work and from domestic relations, which would be fatal to him, we must compromise; but this must be done with caution, and with warning of the dangers involved.

To conclude this paper, I must say that in my opinion many patients are sent travelling who had better be at home, and that, instead of excitement and the so-called stirring up, it were better they were left alone or kept in bed. I believe great risk is run in sending melancholic patients travelling, and I do not think that the possible gain in any degree justifies such a risk. I have seen very many patients on their return from voyages almost in the last stage of starvation, because artificial feeding could not be carried out at sea.

By all means let us use the best forms of stimulation where we are convinced that stimulation is needed, but do not goad the already miserable melancholiac to further mental effort, which must be painful.

Still more must I, as I have said, protest against sending any patient abroad who has distinct bodily and mental symptoms pointing clearly to general paralysis of the insane. I could fill a paper with a recital of accidents, some serious and others comical, following the sending such persons abroad. In many cases the patient himself is anxious to travel, and friends prefer to yield to this wish rather than to control him, as he appears to them to have little beyond excitement the matter with him. I have already said that in a later stage, or during remissions, travel may be considered, but I would much prefer to send such patients to vegetate in some out-of-the-way spot rather than run the risk of explosions in distant parts. I have known of one patient, who broke down in the Mediterranean, being confined in an underground cell, little better than a pit, till he was rescued by English doctors.

Discussion

At the General Meeting, London, 21st November, 1900.

Sir Hermann Weber, having been called upon by the President, said: I will mention a few experiences which may not be without interest, though they will fall short of the very intelligent and caustic way in which Dr. Savage has treated

this question. Above all, I agree with him entirely as to the dangers of long sea voyages in cases of insanity. Three intimate friends of mine, after great family losses, suffered from grave melancholia, and were sent on long sea voyages. Two of them had an attendant each; the other had two attendants and a doctor. Two of those patients drowned themselves by jumping overboard. The third repeatedly made similar attempts, but having a doctor and two attendants was prevented. He was not improved by the voyage. On the other hand, I have certainly seen much good from sea voyages in conditions of great mental depression, more or less combined with delusions, produced by various causes—especially by shock or failure, by "overwork," or rather, unsuccessful work. I have seen a number of students recover after long sea voyages. They had despaired of accomplishing anything, but on return began to work, and have worked successfully. Health was completely restored. Dr. Savage has stated with approval that those delusions which remain after acute diseases, such as influenza, are removed by long sea voyages. They have been removed in five or six cases under my care. That method has also been beneficial in phenomena of paralysis, with a kind of dementia following on diphtheria. Sea voyages act in such cases not only by the tonic influence of the sea air, but also, and perhaps principally, by occupation of the mind. The latter influence can often be obtained at least equally well by other means. I may mention a case. Disappointed love led a highly educated man to form delusions. One of them was that he was totally unfit—that he was no man. Partly under my influence he was sent to Switzerland. He was a great botanist, and there, by accident, he met another botanist, who pointed out some peculiar plants and ferns and asked him about them. That awakened his interest, and in the course of several months the cure of the patient was complete. But after all that is not much more than occurred in a case, which I saw with Dr. Savage, without travel being prescribed. It was that of a great coach driver, who engaged himself to be married. Immediately after his engagement he became quite insane, entertaining similar delusions. I advised that he should be put on a four-in-hand. Dr. Savage had the courage to recommend that course in spite of the natural objection of his friends, and that gradually led to his permanent recovery.

Dr. SYMES THOMPSON: I quite feel with Dr. Savage, that in the large class of cases which he has described it would be exceedingly unwise to send people across the seas when they had already passed the line dividing sanity from insanity. I cannot help thinking he has done in this paper what I have been constantly doing, as have other physicians who have a good deal to do with climate treatment, that which is so commonly our duty—to discourage people from taking a sea voyage or from going abroad when they are too ill to gain benefit from it. But, on the other hand, I think we may wisely do a great deal in advising people to travel when the disease is rather threatened than established. When the conditions of the nerves are such as to lead us to believe that ere long there will be a serious disease, then I think we may often with enormous advantage recommend climate treatment. When Dr. Savage employed the word "travel," I did not assume that he intended to limit it so closely as he has done to travel by sea; but he seems to have taken this as being the better of the two, that is to say, better than by land, because no one in his senses would recommend a long railway journey for those whose nervous systems are in the condition he has so well described. I think, then, we are all at one with reference to the question of sending people on voyages for the purpose of getting rid of them, either for our own sake—to be free from troublesome patients—or for the sake of the friends, that they may be free from the cares and the responsibilities of watching over those whose nervous systems are wrecked.

Let us for a moment consider what travel may do for those who are in danger of deterioration. I think—if I might be allowed here to refer to the first paper—we had clearly put before us two or three points with reference to the causation of brain disease which have a bearing on our discussion as to its treatment. We heard, and I am sure with extreme interest, how very many of the defects with which we have to deal as physicians for mental affections are due to toxic influences, and we heard also how clearly the localisation of these defects is dependent upon stress. We heard also how very much heredity had to do with it. I thought the suggestion very valuable that the heredity was perhaps a

defective power of elimination rather than any textural defect. If, then, the disease is one of defective power of elimination, if it is a disease in which the danger lies in stress, surely the value of changed surroundings, of a climate in which elimination may be encouraged, cannot but be regarded as of very great value. We must admit that travel is of immense value as regards change of environment, and we must see many people whose nervous systems will go to pieces unless they can be taken away from the stress in which they are living, whether that be on the Stock Exchange, or in any other professional occupation where the nineteenth century pressure is very great. There we recognise the necessity of taking our patients far afield; and the value of a sea voyage may be, in such cases, occasionally considered. My own experience of sea voyages in that relation has not been very satisfactory. In this I regard Egypt as a place of varied interests and very great value for people whose tendencies are towards deterioration due to over-concentration in their work, such as will gain by a peaceful life in a fine air. On the other hand, we send to the Alps those who with fresh vigour can take active exercise with advantage.

I will not delay you longer. We all of us deal with cases of mental disorder in an early stage, and, happily, we also deal with cases in a convalescent stage; and I would put in a word on the value of travel under such circumstances. I accept what Dr. Savage has said, but would ask you to accept the fact that for preventive purposes and for convalescent purposes travel may be employed with the very greatest benefit.

Dr. Robert Jones: Some years ago, my friend the Master of Downing College, Cambridge, was ordered to travel abroad for family reasons. Before he got very far he wrote a letter, in which he stated that very great and grave responsibility lay at the doors of those doctors who recommended mental cases to travel abroad, that in a very short time two of these cases, journeying in the same vessel with himself, had committed suicide by jumping overboard. Feeling, during this summer, that there was no *ex cathedra* statement upon travel in any well-known English text-book; and feeling that there was no definite line to guide us in giving advice as to travel; appreciating also Dr. Savage's very great experience, and his sympathy with travel—himself a distinguished member of the Alpine Club—I ventured to write and ask him if he would be good enough to read to us a paper on this subject. He very kindly—being at Zermatt at the time—consented to do so.

Anticipating, also, that it would add to the comprehensiveness of the discussion if we could get the experience and authority of physicians who are consulted more especially with regard to their own knowledge of the subject of Climatology, I ventured to write to Sir Hermann Weber and to Dr. Symes Thompson, saying that Dr. Savage would read a paper on "Travel" particularly in its relation to Neurasthenia, and asking them if they would consent to be present and speak, which they did. I then wrote to Dr. Savage, who replied that the term Neurasthenia was not sufficiently comprehensive. (Hear, hear.) That is the explanation of how the names of Sir Hermann Weber and Dr. Symes Thompson have both appeared on the Agenda.

Bain states in his book that a continuation of the same impression is attended with unconsciousness. The converse of this suggests to us the advantages of travel, and as to the varieties of places, Sir Hermann Weber long ago stated there were three practically pure airs to which one might send patients who desired a change, viz., the air of the desert, of the highest mountains, and that of the sea. I am very glad to have heard to-night the views of Dr. Symes Thompson on one, and Dr. Savage particularly on another, viz. "Ocean Travel." I may add my very full agreement with Dr. Savage about general paralysis. Lately I have had under my care a gentleman who was ordered to travel abroad by a distinguished physician. He was advised that the best place to go to was the Cape. He was a general paralytic. In a short time his condition became deplorable. He was without a nurse, and his wife had to get special assistance to bring him home. And this is the class of case which ought never to be sent abroad.

With regard to monomania, I should like to be sure about the class of case which we ought to send abroad, and I should be glad if Dr. Savage, in his reply, would enlarge upon what I have failed to comprehend. One particular point

about monomania is the systematisation of the delusions, and the fixing of these upon any one in control of them. Some years ago, through Dr. Savage's kindness, it was suggested that I should travel with a nobleman who was suffering from this particular form of insanity, and who, when he got to Marseilles, associated his delusions with his doctor, and refused to go an inch further. I should like, in conclusion, to say that I have derived particular pleasure and much instruction from listening to this very practical, vigorous, and able paper.

Dr. Weatherly: My experience has been that what undoubtedly is real rest and pleasure to many patients is absolute cruelty to others. We have to bear in mind three important points: Firstly, we want to improve the physical constitution of the individual and his assimilative processes. Secondly, we want to correct or to alter the association of ideas; and lastly, but by no means least, we want to stop morbid introspection. I firmly believe that if our asylum physicians will get places erected where they can keep their patients out almost all day, and if they will only allow free access of fresh air to their bedrooms and living rooms, they will do a great deal of good, and not necessitate the rush for travel which, in so many cases, leads to great disaster. I am satisfied that with regard to change, whether it be a sea voyage, travel on the Continent, walking tour, etc., each case should be judged on its own merits, and that no sort of hard and fast rule can be laid down.

Dr. Theo. Hyslop: In my experience the usual class of cases one meets when travelling is almost invariably the hypochondriac, and they nearly all say the same thing—that travelling does absolutely no good.

Dr. Savage: I should say that the various forms of obsession may not be cured by travel; but travel will pass the time and often remove the patient from circumstances of irritation, to the relief of himself and his family. Perhaps I do not appear to agree with Dr. Weatherly about the question being governed by principles, but one great group of cases is governed by a certain principle, viz., every melancholic patient is a potential suicide. To that I think Dr. Weatherly would agree, and that is the first thing we have to consider. I am not always as good as my principle, however, for I have said that after influenza there are periods of depression which are greatly benefited by sea voyages.

The Use of General Electrification as a Means of Treatment in certain forms of Mental Disease. A Paper read before the Medico-Psychological Association at the General Meeting, London, 21st November, 1900. By H. Lewis Jones, Medical Officer, Electrical Department, St. Bartholomew's Hospital.

It gives me great pleasure to have an opportunity of bringing to the notice of this meeting some matters connected with electrical treatment, because I believe that in the management of mental cases a very suitable field of application may possibly be found for electricity.

One of the chief advances which has been made of late years in electro-therapeutics, consists in the greater prominence given to the effects upon the body as a whole of electrical application. Apart from the good results which are known to follow

localised electrisation in local diseases, we have now-a-days also to reckon with general electrisation, which is useful through its power of stimulating tissue change, and promoting nutrition. This line of work has been notably advanced by D'Arsonval, Professor of Applied Physics at the College of France, and he has made numerous measurements, both upon animals and on human beings, which tend to show how direct an influence electrical applications have upon the respiratory exchanges of the body, the production of heat in the body, and the elimination of urea. D'Arsonval has shown increases in these points of considerable magnitude, for example, from 17 to 37 litres in the case of CO_2 excreted in the hour, and from 79 to 127 calorics of heat in the same time. The measurements of urea, though less striking, and also of less importance, are fully established.

When we pass by the natural step from physiological experiment to clinical experience, we find that in many conditions of simple debility, of anæmia, and so on, the general electrification of a patient is followed by an improvement in his general condition. There is improved colour, greater activity, increased appetite, and frequently sounder sleep. The effects produced are very much those which are produced by increased air and exercise, and this can easily be understood when we remember the effects of increased respiratory activity demonstrated by D'Arsonval.

In another simple form of malnutrition, namely in rickets, I have been able to satisfy myself that simple electrical stimulation has a marked therapeutic action, and I have seen patients of this class recover health and strength rapidly with this form of treatment alone.

In cases of impaired or failing nutrition associated with failure of mental powers I have two or three times had the opportunity of trying the effect of electrical applications, and have been encouraged with the results.

Such cases do not very often come before those who are not specially connected with mental work, but I cannot help feeling that in asylums there are numerous cases to be found who exactly fulfil the required conditions, namely, failure of the mental faculties associated with defective bodily nutrition, and perhaps depending upon this bodily deficiency.

I am glad to say that my friend Dr. Robert Jones, of Clay-

bury, to whom I unfolded my views on this subject some time ago, has been following up this line of treatment for some time past, and, as he tells me, with good results; and I hope that he will be good enough to supplement what I have to say to-day by relating some of his clinical experiences. Another friend of mine, Dr. Goodall, of the Joint Counties Asylum in Carmarthen, has lately commenced to examine my views on the subject by setting up the necessary apparatus and treating some of his patients electrically.

Although my knowledge of mental disease is very limited, I cannot help believing that the opportunities for the successful treatment of certain classes of the insane by electricity are extensive, and I have the idea that apparatus for treating them by general electrisation, would be found useful in all institutions where the treatment of the insane is carried out. This, then, is the pith and substance of my paper, a plea for the trial of electricity applied in the form of general electrisation in cases of mental disease associated with defective bodily nutrition.

A few words on the apparatus and methods may be useful. Of the several modes of applying a general electrisation, that by means of the electric bath with an alternating or interrupted current is the best, and also I believe the most convenient. To apply it one uses an earthenware or wooden bath tub, in which the patient can recline. Metal plates at the two ends of the bath are connected with the source of current, and the patient lies in the bath of warm water for ten or fifteen minutes. Treatment may be repeated daily or less often.

The sensations experienced are by no means unpleasant when the current is maintained at an even magnitude without irregularities. The patients feel refreshed by the bath, and often are inclined to sleep afterwards.

The best form of current to use is the sinusoidal current of the alternate current dynamo. It differs from that of an induction coil in having much greater smoothness, and the rise and fall of the current in each period or alternation is more gradual. Where a public lighting supply of the required character can be obtained, this, when properly reduced to four or five volts, serves well. Failing this, it is easy to procure a suitably wound small dynamo, which can be driven

by a water motor, or by a belt from an engine, or by a small independent gas or oil engine. Quite a small machine, of one quarter horse-power or so, is ample.

Second to these sinusoidal currents, but still very useful, is the current from an induction coil. This has the advantage that it can be obtained anywhere, and is cheaper. Continuous current is not of the same value for purposes of general stimulation ; where it is laid on in the building it should be used by preference to drive a motor, which, in turn, works an alternating dynamo to supply the sinusoidal current. A combined machine or motor dynamo is made for this purpose of acting as a converter.

Another way, hitherto comparatively untried, of using direct currents is by means of a clock-work regulator, which is so contrived as to turn on the current in a gradually increasing manner, and then to turn it off in an equally gradual way, with a short period of rest between each impulse and the next. This mode of turning off and on is also recommended for use with sinusoidal currents, and has lately been brought into notice in France. Though I have not yet made trial of it, it is my intention to do so shortly. The points in its favour are that muscles have been found to grow more actively under this rhythmic alternation of contraction and repose than they do with currents which are not so interrupted, and the analogy of gymnastic exercises with their rhythmic contraction and relaxation of groups of muscles also supports this view.

In conclusion the following brief notes of my cases may be of interest.

The first, a middle-aged man, was attacked by influenza, and this was followed by loss of memory, debility, and general mental failure. He was quite unable to attend to business, and could with difficulty remember the day of the week. Under treatment with electric baths he rapidly recovered.

Another was a shorthand writer, who was sent to me as he had fallen into a peculiar mental condition. He was strange in his manner, sat and brooded at home, or wandered at large aimlessly ; so much so, that on one occasion he was brought home by a policeman who suspected him of being insane. He was thin and pale, and had a dejected appearance. Treatment was carried out for several months with gradual bodily and mental improvement, and in the end he was quite restored and went back to work, at which he has continued for nearly two years without any return of his trouble.

A third case is very much like the last. A man of forty began to

grow more and more helpless. He became unable to find his way in the street; he stumbled easily, and several times fell down without adequate cause. His speech became slow and he could attend to no business, and it was uncertain whether he understood what he read in the newspaper. Under electric bath treatment there was a slow improvement, perceptible first to his wife. In about two months' time he was able to come to the hospital alone instead of being brought there by a friend. Treatment was continued for nearly a twelvemonth, and during the last part of the time he was able to attend to the book-keeping of his wife's business. He spoke quickly and to the point, and no longer stumbled or fell down, and he described himself as "practically well." There was a gain in weight both in his case and in the preceding one.

Discussion

At the General Meeting of the Medico-Psychological Association, London, November 21st, 1900.

Dr. Robert Jones, having been called upon by the President to speak, said: I have tried the electric baths in the case of adolescents mostly. In these and others the form of insanity was that of melancholia, some of the cases presenting well-marked melancholia attonita (or anergic stupor). These cases are marked by a gradual deterioration as a rule. They stand or sit about in a fixed or passive attitude, and have almost always to be considerably coaxed (if not forcibly fed) in order to get them to take nourishment. The mental condition is so unsatisfactory that some persons call the disease Primary Dementia, and it certainly is not a very curable form.

After my encouragement by Dr. Lewis Jones' method of bath treatment I tried it upon eighteen males and five females. The record of weights in the case of the females was not kept, but of the five cases all improved greatly in health. But two were phthisical, and whilst undergoing bath treatment both gained several stones in weight. One died suddenly from pulmonary hœmorrhage, having recovered mentally; the other improved mentally also, but died of phthisis. One was discharged recovered, one developed epilepsy, and one has recovered sufficiently to lead a useful life as helper in the asylum.

Of the eighteen men nine have left the asylum (six recovered, two relieved, and one improved but not recovered). All the men gained weight under treatment (they were weighed weekly, and the record has been kept), the average gain of the nine who left the asylum being seven pounds during the bath treatment, which lasts for an average period of about seven weeks; but many received baths from nine to eleven weeks. The greatest gain of one case whilst under treatment was twenty-two pounds, the next nineteen pounds.

Of the nine cases remaining under treatment one is phthisical, one is suffering from progressive muscular atrophy, and the others are considerably improved mentally, the stupor or profound melancholia having passed off; but the patient has not been well enough to be discharged from the asylum. I consider the results to be satisfactory. So little has been done in regard to the systematic treatment of the different forms of insanity by electricity that it is, perhaps, premature to form definite conclusions, but I consider that in electric baths we have an excellent and a valuable stimulant to metabolism. The skin in the insane is in an abnormal condition; but whether the improvement after baths is due to the bath or this with electricity, I am not prepared to say.

This is the result of the electric treatment during the past four years, and since writing the above I have used the method for alcoholic and saturnine cases with very satisfactory results.

Dr. Goodall: On Dr. Lewis Jones's suggestion, three months ago I procured the electrical apparatus in the asylum to which I am attached. We get the power from a steam engine by a belt. The sinusoidal current is produced as Dr. Lewis Jones recommends. The strength is 2000 milliampères when it comes off the

dynamos; it travels a considerable distance, and we damp it down by a powerful resistance prior to its entering the bath. We give the current of a strength up to 250 milliampères. I have not had a great experience, but we have treated nine cases, and of these five were decidedly improved; one has recovered, and all have gained weight. Cases of adolescent mania, stupor, delusional insanity, melancholia, have been thus treated. Those which have improved are: two cases of stupor, two cases of adolescent melancholia (one of these has recovered entirely), and one case of delusional insanity dependent upon sexual excess, according to the man's own statement. He is gaining weight, and otherwise improving very much in appearance. These results are encouraging. One patient, a case of stupor, jumped out of the bath at once, and began to walk about, almost in his right mind. He explained two days later that he had a frightful shock, and that he would do anything sooner than submit to it again. He at once began to work. Another patient, suspected to be delusional, when the electrodes were applied to his pubic region said, "That's just where my wife gives me the current." We elicited the delusion, but it was not desirable to continue electrical treatment. The cases in which I have looked for improvement are the stuporose and melancholic cases, in deteriorated health.

Dr. ROBERT JONES, in reply to Dr. Clapham: I was careful to select those cases which had no electrical delusions, that being an important point. The method of application is to have the bath at a temperature of 100° F. If a female patient she is clad in a dressing-gown, with nurses in attendance, the electricity is not applied for more than fifteen minutes daily, and the treatment is extended on an average over seven weeks; in some cases it was continued nine or eleven weeks.

Dr. LEWIS JONES, replying to Dr. Robert Jones, said: In cases treated by electricity in conjunction with baths it is difficult to assess the relative amounts of good done by the baths on the one hand and by the electric current on the other. I consider that both contribute to the good result. So far as the effect of electricity in producing metabolic changes goes, that has been completely settled by extensive experiments conducted by D'Arsonval. I hinted at the beginning of my paper that the electric bath is only one of several ways of producing metabolic changes electrically. There are others in which there is no employment of water or baths, and yet the increased tissue exchanges occur in the same way. My own belief is that it is the electricity which is effective to a very large extent in the electrical bath, just as it is in the other modes of general electrification without a bath at all.

A Brief Outline of the Arrangements for the Care and Supervision of the Criminal Insane in England during the Present Century. By RICHARD BRAYN, L.R.C.P., M.R.C.S., Superintendent State Criminal Lunatic Asylum, Broadmoor.

AS the mode of dealing with those insane persons who have committed offences bringing them under the authority of the criminal law differs in some respects from the practice followed in the case of the ordinary or non-criminal insane, I thought that on the occasion of the visit of the South-Western Division of the Medico-Psychological Association to this Asylum a brief outline of the history of the arrangements for the care

and supervision of the criminal insane in England might perhaps be of interest to those members who have honoured Broadmoor with a visit to-day.

I do not propose to give a detailed account of the various statutes relating to the criminal insane which have been passed during the present century, but merely to give a general outline of what has been done; indeed, the time at our disposal will not admit of more.

Any one who desires to go more deeply into the matter, will find an excellent and full account of the "history of legislation as to criminal lunatics" in Mr. A. Wood Renton's *Law and Practice in Lunacy*.

Just a few words with regard to the term Criminal Lunatic. Mr. Wood Renton calls it an ambiguous one, and it is no doubt sometimes applied to persons to whom it is not really and legally applicable. Definitions of the term are given in the Criminal Lunacy Acts of 1867 and 1884, but for practical purposes criminal lunatics may be divided into two classes, viz., Queen's Pleasure Lunatics and Secretary of State's Lunatics.

Queen's Pleasure Lunatics include: (1) those found insane on arraignment, and (2) those who are tried and found "guilty but insane." Secretary of State's Lunatics include: (1) those certified insane before trial, and (2) those certified insane after conviction.

The capital distinction, however, between criminal and the non-criminal lunatics is that the former are in custody by virtue of an order of a court of law. They are transferred from the prison in which they are confined to an asylum upon the authority of a warrant signed by the Secretary of State, and cannot be discharged without his sanction.

Previous to the year 1800 no special provision was made for criminal lunatics, and the mode of procedure in regard to their treatment and disposal was varying and uncertain; they were either dealt with as ordinary lunatics, or were committed to prison and punished for their offences. The result of this was that "many of the bridewells were crowded and offensive because the rooms designed for prisoners were occupied by lunatics" (Howard, *State of Prisons*); and, on the other hand, it was stated by the Attorney General (*Hansard*, 1800, vol. xxxv) that "persons who had committed the most shocking acts, and been acquitted on the grounds of being deranged in

their intellects, had been allowed to go at large and again commit similar atrocities."

On the 28th July, 1800, an Act (39 and 40 Geo. III, Cap. 94) entitled "An Act for the Safe Custody of Insane Persons charged with Offences" was passed, and this is the oldest of the statutes relating to criminal lunatics. It was the direct outcome of the trial of Hadfield for attempting the life of George the Third.

As Dr. Orange, in his Presidential Address delivered at the Annual Meeting of the Medico-Psychological Association in 1883, showed (cf. *Journal of Mental Science*, vol. xxix, p. 332), the Act of 1800, above mentioned, while it empowered the Sovereign to give orders for the safe custody of criminals found to be insane, contained no provision for defraying the expenses of their care and maintenance where they had not sufficient property of their own, and the result appears to have been that many such persons continued to be kept in gaols and houses of correction, instead of being placed in asylums.

The appointment of a Select Committee on Criminal and Pauper Lunatics in 1807 was the next step of importance. This committee recommended "that a building should be erected for the separate confinement of all persons detained under the above-mentioned Act (39 and 40 Geo. III, Cap. 94) for offences committed during a state of insanity."

In 1808 the House of Commons presented an address to His Majesty praying that a separate prison might accordingly be erected, but the plan was not adopted.

Nothing was done until 1814, when wards for the accommodation of sixty criminal lunatics were constructed in connection with Bethlem Hospital, on the understanding that the Government would defray the annual cost of maintenance, but that their control and management should be under the superintendence of the governors of the hospital, and that they should be attended by the medical and other officers of that establishment.

A few years later it was found necessary to double the accommodation at Bethlem, and shortly afterwards still further provision was required. In consequence of this an arrangement was entered into in 1849 between the Home Office and the proprietor of Fisherton House, near Salisbury, for the accommodation of those criminal lunatics who could not be received

into Bethlem. A similar arrangement was made with the Camberwell and Dumfries Lunatic Asylums, and others.

Meanwhile, a Select Committee of the House of Lords was appointed in 1835 for the purpose of inquiring into and reporting upon the state of gaols and houses of correction, and one of its resolutions was that "persons whose trials have been postponed, or who, having been tried, have been acquitted on the ground of insanity, shall not be confined in gaols or houses of correction."

The Act passed in 1800 (39 and 40 Geo. III, Cap. 94) enacted that where any person was discovered and apprehended under circumstances that denoted a derangement of mind and a purpose of committing some crime, for which, if committed, he would be liable to be indicted, he might be sent to prison; but this enactment was repealed by an Act passed in 1838 (1 and 2 Vict., Cap. 14), which made provision that any such person so apprehended might be sent by two justices, acting with the advice of a medical man, to a lunatic asylum.

In 1840, 3 and 4 Vict., Cap. 54 was passed, and by this Act, the main purpose of which was to provide for the removal of insane prisoners to asylums during their insanity, and for their maintenance in such asylums, the regulations made by the Act of 1800 (39 and 40, Geo. III, Cap. 94) with respect to persons charged with treason, murder, and felony were extended to persons charged with misdemeanour.

The wards provided at Bethlem and Fisherton having become filled, and the provision of further accommodation having become necessary, it was at last decided to act upon the recommendation of the Committee of 1807, to build a special asylum for criminal lunatics, and in 1856 the Home Secretary entrusted the erection of the new asylum to Sir Joshua Jebb, Surveyor-General of Prisons, and Broadmoor was selected as the site for it.

In 1859, whilst the asylum was in process of building, another Select Committee was appointed by the House of Commons to inquire into the operation of Acts of Parliament relating to lunatics, and in their report, which was issued in 1860, they observe, with reference to criminal lunatics, that "to mix such persons with other patients is a serious evil; it is detrimental to the other patients, as well as to themselves. But to liberate them on recovery as a matter of course is a still

greater evil, and could not be sanctioned, for the danger to society would be extreme and imminent."

Following upon this report, the Act of Parliament commonly known as the Broadmoor Act was passed, in 1860. This statute gives directions as to the mode in which any place deemed suitable may be appointed a criminal lunatic asylum, and describes the kind of persons who may be confined therein. It also empowers the Secretary of State to appoint a Council of Supervision, as well as officers, attendants, and servants, and to make rules for the government of any asylum appointed under the Act. Under Sections 14 and 15 the Commissioners in Lunacy are required to visit the asylum once or oftener in each year, and to report all such particulars as they think deserving of notice to the Secretary of State every March.

The asylum was opened in 1863, but no male patients were admitted until early in the following year.

As originally constructed, the asylum consisted of six separate blocks for men, capable of accommodating 400 patients, and one block for women, having accommodation for 100. Since then various alterations and additions have been made from time to time, and the asylum now contains 480 beds for men, and 187 beds for women.

Broadmoor has since the date of its opening been the place of detention for female convicts becoming insane during the currency of their sentences, but in the year 1875 an alteration in the system of dealing with male convict lunatics was made, by setting apart a wing of Woking Invalid Convict Prison for their accommodation. In consequence, however, of the diminution in number of the prison convict population it was decided in 1886 to discontinue Woking Prison as a convict establishment, and to make provision for the insane male convicts by enlarging Broadmoor. The convict lunatics, numbering then fifty-eight, were transferred from Woking to Broadmoor in October, 1888.

In 1880 a Commission was appointed by the Home Secretary to inquire into the "subject of criminal lunacy," and its report was presented to Parliament in 1882.

In 1883 an Act called the "Trial of Lunatics Act" was passed, but this Act only affected the phraseology of the verdict to be given when a person is found to have been insane at the time he committed the offence with which he is charged.

A further Act to consolidate and amend the Acts relating to criminal lunatics, in accordance with the suggestions and recommendations of the Departmental Committee of 1880, was passed in August, 1884, and came into operation the following November. This Act makes provision for the certification and detention of insane prisoners as criminal lunatics, and is the statute which mainly governs the practice and method of procedure in dealing with criminal lunatics, in respect to their confinement and maintenance in asylums, as well as their transfer and conditional or absolute discharge.

With regard to the care and supervision of criminal lunatics whilst under detention little need be said, as it differs only slightly from that of the ordinary insane in the county asylums. The treatment of the patients in Broadmoor is based on the same principles as that of other asylums, excepting that in consequence of the dangerous and violent propensities of many of the patients, and the special supervision they require, a much larger proportion of attendants is necessary, and stricter measures to prevent escapes are requisite.

Most visitors to Broadmoor will probably observe that the proportion of patients sleeping in single rooms is much greater than in the ordinary asylums. When Broadmoor was first built the proportion of dormitories to single rooms was much greater than it now is, but the number of patients who were fit to sleep in association without constant supervision was so limited, and so large a staff of attendants on night duty would have been necessary, that some of the dormitories were converted into single rooms. I may here remark that the majority of the patients much prefer sleeping in single rooms, and are constantly requesting to be moved from the dormitories.

The question of the discharge of the criminal insane, more especially those who have committed homicide, is always a serious matter, and often fraught with difficulty. This question was discussed at the Paris International Prisons Congress in 1895, and the danger to society from the too easy discharge of the criminal insane was recognised. The Congress also recognised the need of a combination of judicial, administrative and medical authority in dealing with these cases.

In the case of an ordinary or non-criminal patient, if he recovers his sanity he is discharged, although in certain cases there may be some apprehension as to whether the recovery is

permanent; but in the case of a lunatic who has committed or attempted to commit homicide, not only has his mental condition whilst under asylum care and treatment to be taken into consideration, but the probability or otherwise of his being able to maintain his mental equilibrium if liberated must be fully and carefully considered. He may be one of those unfortunate individuals—with whom, I imagine, we are all familiar—who, although he may be capable of preserving his mental balance so long as he continues under the favourable conditions, and freedom from care and responsibility, that he enjoys under asylum supervision, would have a tendency to relapse if exposed to any worry or anxiety, and might again become a source of danger to the public if discharged.

The recurrence of the same mental state is, we know, usually accompanied by a recurrence of the same thoughts, feelings, and impulses, and when the history of such a person as above described shows that he is lacking in that reserve of nerve power which is necessary to enable him to adapt himself to the varying external circumstances inseparable from every-day life in the outside world, it would obviously be unsafe to permit him to be set at liberty unless he can be placed under close and reliable supervision. A thorough investigation of the family and personal history of the patient is therefore essential; and the circumstances in which he will be placed if discharged, as well as his capacity to contribute to his own support, require to be taken into consideration.

Intemperance is frequently found to have been an important factor in determining the criminal act, although it may not have been the actual cause of the insanity.

It will therefore be seen from the foregoing, remarks that although a criminal lunatic ceases to display any symptoms of active insanity, and is able to conduct himself satisfactorily under the favourable conditions of asylum life, it does not necessarily follow that he could, with safety to the public, be permitted to resume his former position in society.

There is another class of cases which presents peculiar difficulties. It is that of married women who have killed their children during attacks of puerperal and other forms of insanity. There cannot be any difference of opinion as to the undesirability of these women having any more children; but the difficulty is, how are you to prevent it? If the woman is young

and recovers, and appears to be able to maintain her sanity, she can hardly be detained in an asylum until past the child-bearing age, and public opinion is not yet educated up to the idea of having her sterilised.

In order that the public safety may be safeguarded as far as possible, criminal lunatics are, with few exceptions, discharged conditionally on the undertaking of some relative or friend to keep them under supervision, and to immediately report to the Secretary of State any symptoms or indications which would appear to show that the patient was again likely to become a source of danger to himself or to others. The person to whose care the patient is discharged is also required to furnish periodical reports of the patient's mental and bodily health, but these periodical reports may be discontinued after a time, if the patient's condition and conduct remain satisfactory, the general undertaking to report any relapse remaining in force.

An entirely new table of statistics, which appeared in the Annual Report of the Broadmoor Asylum for the first time in 1899, gives a classification of the crimes and offences of the patients remaining in the asylum on the 31st December of that year. The form of the mental disorder existing at the time of the commission of the offence is noted, and the whole affords conclusive evidence of the association between delusional insanity and homicidal acts. Reduced to percentages it shows that 83·3 per cent. of the total population of the asylum were cases of homicide and homicidal attempts, 81·2 per cent. being males and 94·7 females.

Another table shows the admissions, discharges, deaths and escapes for each year since the opening of the asylum, with the average annual rates of recovery and mortality.

Discussion

At the Meeting of the South-Western Division, at Broadmoor, October 30th, 1900.

The President, in thanking Dr. Brayn for his interesting paper, said that the history now given has enlarged our views of Broadmoor. He had shared the idea that when patients were sent to Broadmoor they were sent for life. He did not know that they were conditionally discharged to the care of friends.

Dr. Jas. Stewart.—I have been accustomed ever since I came over to this country to find that the country of my birth has always been looked upon as a *terra incognita*, but I am somewhat disappointed to find that in all this matter connected with the criminally insane, Ireland in the history of insanity in connection with criminal lunatics was not even mentioned. To come more to the point, with regard to the separation of those who have no mark of crime upon them and the insane who have unfortunately committed a crime. I think it is

very satisfactory that now, at the end of this century, we are able to see that the public has become so enlightened, that our legislators are gradually being so instructed as to the importance of the separation of the two sets of people, that we have this splendid institution to rejoice in as Englishmen, and I am proud to say that Dundrum is an institution of which the whole country may be proud also. It struck me very much, as it did strike you, sir, to-day in going round this institution, to see the large number of single rooms; and it was specially striking that these single rooms were so very prettily ornamented, and that there was an indication of home life in them, and of enjoyment, to a certain extent, of the lives of the individuals who occupied them. We have, therefore, had a great deal of gratification in seeing that the people who are here are not the woe-begone and miserable and unfortunate people that many of us, perhaps, thought; and the further point of their having something to look forward to, which the reader of the paper has emphasised, and to which you have drawn attention, is very pleasant to know,—that they are not here for life, that the misfortune of their having committed a crime while insane is not to be brought against them, and if they recover their reason they may again go amongst their friends. We all feel we owe a great debt of obligation to Dr. Brayn for bringing this matter under our notice, and I hope he will forgive me that, as an Irishman, I was disappointed that my unfortunate country was not mentioned.

Dr. NICOLSON.—The other day I was written to by an American, who is superintendent of one of the asylums there, asking if I could give him an opportunity of speaking to me about the arrangements of Broadmoor, as they were in process of constructing an additional criminal asylum in America. The first question he asked was, What do you think of the dormitory arrangement as compared with private single room accommodation for the patients? I said I was absolutely and entirely in favour of single room accommodation in certain conditions. He said that his experience in America was in the opposite direction, and he felt that sleeping the patients in dormitories by night was in every way the best possible arrangement for carrying out the safety and the comfort of the patients; and I said, "Well, it is impossible for me to say more than to give my experience. Of course we must take it that the individuals treated are mentally affected in the same direction, and that you may have troubles with them owing to the question of escape, trickiness, indecency, quarrelsomeness, and in various other ways." He ultimately confided to me that the evening arrangements in America materially differed from ours; that they sent the patients into the dormitories at seven o'clock, where they indulged in various amusements and recreations for two hours; and that the staff were thus enabled to leave the asylum at an early hour. No arrangement of this sort could be sanctioned at Broadmoor, so that the conditions under which sleeping accommodation is provided vary considerably in the two countries, as compared one with the other. I am quite sure that the single room method in use at Broadmoor is the best arrangement at night, not only for the more noisy and intractable patients, but also for the well-behaved, and for those who are capable of appreciating their surroundings. With regard to criminal lunatics and county asylums, I maintain that the county asylums ought to be, in the first instance, and, as far as possible, responsible for all the lunatics of their own counties. There are certainly a number who oscillate between prison and asylums, and who may be said to be well enough treated in either, but that they should be transferred to Broadmoor away from the responsibility of the county is a course I never have been able to think would be justifiable or proper. I say that each county should have its proper wards set apart for such men. It is a great pleasure for me to be here, and to hear Dr. Brayn give this lucid account of the circumstances that led up to Broadmoor as it now is.

Dr. BENHAM.—Our thanks are due to Dr. Brayn and Dr. Nicolson for the very interesting account they have given us of the management of this institution. For myself I can only express the pleasure I have had in going round it. Nearly twenty years ago I went over a criminal asylum in another part of the British Islands, and there I found in those days patients who had misbehaved themselves were chained to iron supports in the ground, and were strapped with strong leather bandages. On going round to-day, I asked whether any punishments were given to patients, and I was told they were not. One other thing which struck me was

the intelligent look of the patients. I saw none of that residuum of dementia which we find in our chronic asylums. I was told that these persons who had committed crimes undoubtedly had a good deal more force of character than chronic dements who came into the county asylums. I was struck with the large proportion of single rooms, and I quite agree with everything that has been said as to the reward to quiet patients in being put into a room where they can have a little time to themselves. I would only once more thank you for the very instructive lesson that it has been to all of us to come and see what is being so well carried out here for our criminal population.

Hon. Secretary.—I am sorry that owing to the unpunctuality of trains I was not able to get here so as to go round with you this morning. The most interesting paper given us to-day by Dr. Brayn raises one or two very important matters. The question of single room *versus* dormitory has been lately somewhat paraded before us; but I am inclined to think that after what we have heard and seen to-day it will be generally admitted that it is a very excellent plan to give a single room for a patient to sleep in rather than to place him in a dormitory. At Broadmoor, as elsewhere, suicidal patients are under continuous observation in a dormitory. I am quite sure that we should hesitate before accepting the idea, which I believe is at present being entertained, that single rooms should, to a large extent, be abolished in favour of dormitories. I do not think it is a notion that commends itself to a majority of the Association. (Hear, hear.) I am very sorry to have to differ from our good friend Dr. Nicolson, but I am opposed to the notion of each county making provision for its own criminal lunatics, for I still maintain that the association of patients who have been at Broadmoor with the ordinary cases in a county asylum does somehow not work satisfactorily. Although Dr. Brayn is out of the room, I must express my thanks to him for bringing this most interesting subject before us.

Dr. Aldridge.—It has been a great pleasure to me to come to Broadmoor, for of course one has heard a great deal of Broadmoor, and imagined a different state of things to what we have had the pleasure of seeing here to-day. I was much struck by the proportion of single rooms. I think a larger provision of single rooms in all asylums would be advisable, as rewards for good conduct on the one hand, and as means of keeping the dormitories quiet on the other. With regard to single rooms for violent patients it has always struck me as being a very wonderful thing that at Fisherton they are always able to deal with violent lunatics there, and on going round a good many years ago I was just as much struck there with the fact that they had not got a single room. I knew that from Wakefield had been sent two or three most violent cases there, and they had been absorbed amongst a violent lot, and had not attained that terrible individuality which they had in the general wards at Wakefield. With regard to the provision of an asylum for such troublesome patients, who are not criminals or criminal lunatics, but a source of great trouble and annoyance in the asylums where they are placed. Large counties, I think, may possibly follow the suggestion Dr. Nicolson has thrown out of providing special places for such troublesome patients, but possibly if there was some asylum which could be extra well staffed and extra well provided with single rooms, and where discipline of a little more severe character could be carried out, I think very many of the county asylums would be the happier for getting rid of these very troublesome patients. Of course districts make a difference in the general character of the patients. I remember in going through Lancashire asylums being much struck with the more uproarious character of the patients than in going through asylums in the southern counties and the West Riding. Patients coming from certain districts are more undesirable than those from other portions of the county. Large counties can provide that graduated treatment which smaller ones cannot do. In that sense possibly an asylum for the treatment of such cases would relieve the life in other asylums. I rather expected Dr. Brayn would have given us some information which would have been valuable as to how the system of discharge works out here. Many of the patients sent here, especially the women, are curable cases probably, and in ordinary asylums probably would be discharged in a very short time. Here they are kept under observation for a longer period, and it would be interesting to know what was the average period or shortest period considered safe that such a patient might be discharged. In the case of curable cases no doubt exactly the same

condition occurring again under similar conditions would regulate the rate of discharge, and again also the question of liability to phthisis and to other diseases as against what one meets with in general asylum conditions; and the death rate—one or two points of that kind would have been interesting to hear. Perhaps he may give us one or two bits of information of that kind when he replies.

Dr. BRAYN.—First of all I would like to tell Dr. Stewart I had not any intention of rendering injustice to Ireland, but found that unless I kept very strictly to the point it would involve making a very much longer business of it, and as I thought that there was another paper to be read I could not possibly occupy so much time. The only other point I remember is about the period of detention of female patients. Every case is decided on its merits, and it all hinges on the probability of the patient relapsing; if she has been insane before, the circumstances under which the insanity occurred practically settle it. With regard to the death rate—our death rate is somewhere about 3 per cent.

Epilepsy and Crime. By JOHN BAKER, M.B., Deputy Superintendent, Broadmoor Criminal Lunatic Asylum.

IN studying epilepsy we see and study symptoms only. The pathology of the disease is very obscure, and it is mainly from its clinical features that we are able to assume the presence of detrimental changes in the more highly specialised tissues of the cerebrum. These changes may be primary or developmental as in the idiopathic type; or they may be accidental, and due to toxic agencies or traumatic injury; or they may be senile, as seen in rare cases (not accidental) occurring in late adult life or old age. Whatever the origin, a condition of nervous instability is set up, which may vary in every possible degree, from simple molecular disarrangement, giving rise to perverted functional action for a brief period of time only, to more lasting effects which conduce to morbid energising of a permanent nature.

In the light of our present knowledge of the disease it is almost impossible to formulate a definition of epilepsy that will be at once specific and comprehensive, for the reason that so widely divergent views are held as to its limitations. For our immediate purpose we have elected to quote the definition of Professor Ottolenghi, one of the ablest of the followers of Lombroso, because its scope is all-embracing, and because it is sufficiently elastic to commend itself to those who hold the most advanced opinions on the subject. Ottolenghi states that "epilepsy is a functional degenerative syndroma, which takes more or less intensely one or other of the following

forms:—Motor, sensory, or psychic (intellectual or emotional) convulsions, according to the character of the individual in whom it is manifested." Adopting this definition as a basis, we may, after the manner of van Gieson and Sidis, classify the different types of epilepsy thus:

I. The typical fit epilepsy, which may be divided into—
   A. Epilepsia gravior (Grand mal).
   B. Epilepsia mitior (Petit mal).

II. The typical fit epilepsy, including A and B, and associated with abnormal mental states, occurring either as the epiphenomena of the fits, or independently and intermittently between them.

III. Attacks of purely psychic derangement with entire absence of association with the fit phenomena of typical epilepsy characteristic of Group I.

More briefly we may arrange the grouping as follows:—(1) Epileptic fits with sanity; (2) epileptic fits with insanity; (3) so-called epileptic insanity without typical fits.

With regard to the first group, Clouston states that epilepsy may exist with perfect sanity, although it always tends to enfeeblement of mind; and Campbell Clark remarks that 50 per cent. of all epileptics remain sane, and escape the climax of this terrible disease.

In the second group the typical fit-like phenomena are associated with morbid mental derangements of various degrees of intensity and duration. These insane outbreaks, when not in proximal relation to the typical fits, are simply interspersed at more or less frequent or infrequent intervals between them, and are sometimes described as the psychic equivalent of epilepsy. Such correlative mental states present various characteristics. Sensation may be blunted, perception perverted, ideation dulled, reasoning and judgment impaired, the patient becomes more emotional, and there is diminution of the power of will. The two most prominent features are irritability and impulsiveness, which may exist in every degree, from the merest excess of irritable temper and irrational conduct to the most dangerous homicidal impulses and acts. Clouston states that a murder by an epileptic should usually be looked upon as being as much a symptom of his disease as larceny by a general paralytic; and further, that if a man has been subject to regular epileptic fits,

and commits a homicidal act in an impulsive or motiveless manner, the presumption would be very strong that he was not fully responsible for his actions.

The question of responsibility, however, is altogether on a different footing when we come to consider the third group of cases, viz., those alleged to be suffering from pure psychic epilepsy. Yellowlees long ago remarked that it was the fashion to call every seizure we do not understand epileptic, and undoubtedly there exists at the present day, especially amongst criminologists, a disposition to put all kinds of mental derangements and irresistible impulses under the heading of epilepsy. Out of 265 criminals, Ottolenghi found 80 to be epileptic, *i.e.*, 30 per cent.—a large proportion, corroborating the well-known views of Lombroso as to the prevalence of the neurosis among criminals. There were no less than 78 of these described as cases of psychic epilepsy, and they were variously denominated—vertiginous, unconscious, and automatic without violence—so-called iracondia morbosa epilettica, purely intellectual psychic epilepsy, and violent psychic attacks leading to crimes of blood. In the ordinary acceptation of the word, not all these would be looked upon as true instances of epilepsy. By their inclusion the term becomes stretched and strained to such a degree as to lose all definite if not rational meaning.

At the recent meeting of the British Medical Association held at Ipswich, it was gravely suggested in the psychology section that many cases of recurrent mania really belonged to the type epileptic, and that they should be classed as epileptoid insanity. The suggestion, we are glad to note, did not meet with favour. A timely protest is needful to counteract these extreme views, and it seems to us that although some forms of mental derangement arouse the suspicion that they are connected with epilepsy, unless the actual occurrence of epileptic fits has been observed by persons competent to judge of their validity, or has been proved by fair inference on medical testimony, it is not in consonance with the dictates of medical science to regard any form of insanity as epileptic. There are not sufficient grounds for supposing that pure psychic epilepsy, entirely and absolutely dissociated from typical fit phenomena, exists as a disease *per se* and, from a medico-legal standpoint, its employment as a defence for crime is altogether inadmissible.

With this expression of opinion we shall now proceed to give some information, statistical and otherwise, in connection with the epileptic cases admitted into this asylum.

Since the opening of the asylum in 1863 until the present date (October, 1900) the number of patients admitted has been 2435, viz., 1860 males and 575 females; of these 139 men and 26 women are described as epileptic, being 7·5 per cent. of the males and 4·5 per cent. of the females.

The following table shows the nature of the crimes and offences of these epileptic patients:

—	Males.		Females.		Total.	
A. Crimes of violence against the person:						
(1) Homicidal offences:						
Murder	49	...	17	...	66	
Manslaughter	2	...	1	...	3	
Attempt to murder, maim, etc.	39	...	2	...	41	
Exposure of child	...	...	1	...	1	
Total		90	...	21	...	111
(2) Non-homicidal offences:						
Assault with intent to rape	2	...	...	...	2	
Carnally knowing	2	...	...	...	2	
Attempted suicide	2	...	...	...	2	
Total		6	...	...	...	6
B. Offences against property:						
Larceny	23	...	5	...	28	
Burglary	6	...	...	...	6	
Sheep-stealing	2	...	...	...	2	
Forgery	2	...	...	...	2	
Arson	7	...	...	...	7	
Placing obstruction on railway	1	...	...	...	1	
Killing a lamb	1	...	...	...	1	
Coining	1	...	...	...	1	
Total		43	...	5	...	48
Grand total		139	...	26	...	165

There are two prominent features connected with this table:—(1) the disproportion between males and females; (2) the disproportion between crimes of personal violence and offences against property.

The Disproportion between Males and Females.

Amongst epileptics generally, Gowers gives the proportion of 53·4 per cent. males and 46·6 per cent. females. Clouston remarks that the disease is less common amongst women. In Germany, Sommer found 60·7 per cent. male epileptics to 39·3 per cent. female. With regard to criminals, Lombroso affirms that epilepsy is infinitely rarer in females than males. Marro shows that motor epilepsy is one third less among women delinquents, and Dr. Brayn informs me that the neurosis is very seldom met with amongst English female convicts. In the English prisons, during the year ended 31st March, 1900, eighty-six male and thirty female convicted prisoners were certified to be insane. In six men and only one woman the insanity is noted as having been due to epilepsy. The proportion of males to females amongst the epileptic patients admitted into this asylum is 85 per cent. men and 15 per cent. women. It is therefore evident that the ratio of male epileptic delinquents to male epileptics generally is far larger than the ratio of female epileptic offenders to female epileptics generally, and that the proportion of males who commit crimes in a state of insanity is much above the proportion of females. This may be due to the fact that the psychic activity of man is greater than that of woman; or, as Lombroso avers, to the tendency which the disease, when existent in women, has to assume the form of wantonness, which, however reprehensible in itself, is less dangerous and does not lead to sensational trials and jealous reclusion; or, as Tonnini remarks, to the liability of the neurosis to cause dementia and imbecility in women rather than the more active forms of insanity. Certain it is that out of the small number of female epileptics at present in the asylum, more than half now display this tendency to mental enfeeblement without violence, not because of age and infirmity, but simply as a characteristic of the disease. The remainder retain their impulsive and dangerous propensities.

Again, the homicidal acts of the female epileptics admitted into Broadmoor convey an impression of deliberation in the execution of the crimes, which is wanting in the majority of the cases of male epileptics charged with similar offences.

Amongst the cases of infanticide perpetrated by female epileptics, drowning was the means adopted in five instances; in only one case was this method selected by a male epileptic. Women, on the whole, are more often merely occasional criminals, and, even when criminals from passion, they rarely commit their crimes in one of those sudden impulses characteristic of the epileptic psychosis.

The Disproportion between Crimes of Personal Violence and Offences against Property.

Amongst the criminal acts which may be committed by epileptics are homicide and homicidal attempts, suicide, theft, incendiarism, etc. It will be readily gathered that, owing to the nature of the malady, attacks of violence against the person largely predominate. In reviewing the Broadmoor cases we find the following ratio:

	Males per cent.	Females per cent.
Crimes of violence against the person .	69	81
Offences against property . . .	31	19

Murder and attempted murder bulk most largely in the former class; larceny and arson in the latter. The relatively large proportion of offences against property amongst the men is owing to the fact that the number of male convicts is far in excess of that of female convicts. The admission of a female convict is indeed a rare event. Without doubt there is room for improvement in the legal procedure connected with the administration of justice in the case of minor offences, especially when no remand is ordered. When cases are summarily dealt with, the question of insanity is rarely raised, no interest is felt in the accused, and fines or imprisonment follow as a matter of course.

It is, however, with the major crimes that we are more nearly concerned, with the cases in which the sanctity of life is in question, with the homicides and homicidal attempts. There seems to be a common impression that the case of the epileptic comes more frequently before our courts of law than any other disease that entails mental disorder.

Clouston is of opinion that there is no other form of insanity

that, outside of asylums, is more often the cause of murder except, perhaps, the alcoholic. In Dr. Blanche's work on Insanity and Homicide, epilepsy and alcoholism are represented as the maladies with mental derangements in which homicidal attacks most frequently prevail. Delusional insanity (persecutory) is placed next in order. Broadmoor is the home of systematised delusion resulting in homicide, and we would rank that form of mental disorder before epileptic, and not behind alcoholic insanity, in respect of crimes of violence against the person. The value of alcohol as an ætiological factor is perhaps somewhat exaggerated, and not unfrequently the resort to drink is consecutive to the origin of the mental disease. That it plays a disastrous part in all insanities cannot be gainsaid, and, often imbibed as it is to relieve the gloomy oppression that pervades the mind of the unhappy sufferer, it only serves, by its after effects, to intensify the symptoms and hasten the impending tragedy. Some varieties of epilepsy predispose to homicide and homicidal attempts more than others. When there is a tendency and habit of brain to sound sleep and long rests after each fit, there is apt to be less mental impairment and fewer maniacal attacks. This is usually seen after severe motor seizures. At times, however, the patient will wake out of sleep in a state of furious mania, more acutely active than almost any other form of insanity. Nevertheless a patient with the tendency and habit of brain above alluded to is, on the whole, probably safer than one in whom occurs a minor or incomplete motor seizure, in which the discharge is followed by a mental disequilibrium, which amounts to a greater or less insanity. That abnormal acts take place in such a state of mind is almost natural, and that homicidal acts preponderate is no doubt due to the nature of the concomitant hallucinations and delusions.

These abnormal mental disturbances may occur—(1) before fits; (2) after fits; (3) interspersed between fits; (4) in substitution of fits,—the fits having ceased.

(1) Before fits they may take the form of sensory perversions—feelings of unaccountable dread, illusions, hallucinations, delusions,—or they may occur as maniacal outbreaks: occasionally there is a feeling of unaccountable dread, as of impending dissolution.

E. S—, 22, a collier, with a history of traumatic epilepsy, attempted to murder another man, and was admitted in 1898. He had been resident two years before any fits appeared. In August last, whilst undressing, preparatory to retiring to rest, he informed two fellow-patients that he felt as if he were going to die during the night. Two hours afterwards he commenced a series of attacks amounting to seven in all. They were severe motor seizures.

W. D—, 37, a blacksmith, who had suffered from epilepsy since childhood, one evening accompanied his mother to the house of a neighbour. On arrival he said he felt ill, declared he was dying, asked his mother to kiss him, and desired those present to pray for him. Shortly afterwards he returned home in company with his mother, and the neighbour; a slight seizure supervened, and he lay down to rest. The subsequent tragic proceedings of that eventful night will be detailed in discussing the subject of post-epileptic mania.

Again this feeling of dread may take the form of being hunted to the death, and is then usually accompanied by terrifying illusions and hallucinations.

C. S—, 18, was the subject of idiopathic epilepsy due to fright. He was tried and condemned for the murder of his uncle. It transpired in the evidence that some time before the tragedy occurred, he, one day, with an open knife in his hand, rushed up to his father exclaiming, "*Look, there is a big man coming to kill me.*" The knife suddenly dropped, and he fell to the ground in a fit.

W. B—, 26, a shoemaker, had suffered from epilepsy for seven years. He had been dull and moody all day. His wife and father-in-law were sitting at the table about to begin supper. Suddenly he rose, placed the left arm round his wife's neck, kissed her, and with his right hand attempted to cut her throat. The weapon used, a knife, was seemingly blunt, and she was not greatly injured. B— was secured with difficulty and put to bed. A policeman remained by his bedside all night. During the early morning hours he started up and said, "I intended to have done it." "Done what?" asked the policeman. Thereupon the epileptic made the gesture of drawing his finger across the throat. Next morning when taken to the police station he had a severe fit. He was acquitted on the ground of insanity, and sent to Broadmoor. Here epileptic seizures were frequent. Before they occurred he was sometimes gloomy and taciturn, at other times restless, excited, and incoherent, calling out *there were devils around him, and that he was persecuted by witches.* His mind became more enfeebled, and he died in the status epilepticus. The brain weighed 45½ oz., the dura mater was thickened, and the grey matter of the convolutions wasted and pale, especially over the upper portions of the frontal lobes. In this region several convolutions were depressed below the general surface, and altogether softer and smaller than those in the immediate neighbourhood. The circle of Willis was incomplete, the posterior communicating artery being occluded and reduced to a mere shred on the left side, and very much attenuated on the right.

In some cases delusions of suspicion and persecution form the prominent features of the pre-epileptic state.

G. B—, 30, fell from a scaffold injuring his head. Epilepsy followed. He was confined in a lunatic asylum, and there murdered a fellow patient by fracturing his skull with a chamber utensil. He and his victim had been good friends previously, but after the murder B— *stated that the other intended to kill him.* He was transferred to Broadmoor. As a rule he was silent and moody, and employed much of his time in reading a prayer-book. When fits were impending, however, he became maniacal and highly dangerous, striking out indiscriminately. Latterly, before the fits, he was wont to bathe his head in his own urine. He had delusions of an exalted religious nature. His brain weighed 48¾ oz., and the base of the skull was found to be twisted and irregular.

S. S—, 28, suffered from traumatic epilepsy. Shortly after marriage his wife left him, but subsequently resumed cohabitation. A housekeeper, whom he employed in the interval, stated that he was subject to frequent fits. Prior to the attacks he often smashed pieces of furniture, but would deny all knowledge of his violence after the fit was over. One afternoon, about six months after the return of his wife, they were visited by her father and two other gentlemen, who came to canvass his vote for an approaching election. During the interview he appeared very quiet, took little part in the conversation, which was mostly carried on by his wife. Half an hour after the departure of the visitors he hacked his wife to pieces with a sword. Shortly after the tragedy he was seen to leave the house hurriedly, call a cab, and drive to the police station. On his arrival, the inspector on duty found him to all appearance drunk; he was crying out in a rambling way *that his wife and the two gentlemen who had called to canvass him were in league to place him in a lunatic asylum.* The news of the tragedy soon spread and was swiftly carried to the police station, and there and then the epileptic was charged with the murder. In reply he said, "I didn't kill her: is she dead?" and thereafter repeated the statement that they intended to put him away. There is no distinct history of a fit having occurred, but that one was impending can be readily deduced from the previous history, and it is more than probable that the motor paroxysm expended itself in the atrocious hacking he inflicted on his wife. He was acquitted on the ground of insanity. He denied all recollection of the crime for a number of years, but ultimately stated that he had killed his wife wilfully. During his sojourn in Broadmoor he was, on the whole, quiet and tractable, and deeply religious. Before and after fits, however, he became violent and maniacal. He developed asthma, and died after a fit. The brain was large, weighing 55½ oz.; no other abnormalities were noted.

Furious mania of a somewhat prolonged character, and accompanied by terrifying hallucinations, has been observed to occur as a prelude to the seizures, but in only one or two

instances amongst the Broadmoor cases has the precursive aura been seen.

2. *Post-epileptic Phenomena.*—The mental derangements consecutive to the attacks vary in their time of onset, and particularly as regards their severity and gravity. In the literature on the subject more attention seems to have been bestowed on these post-epileptic states than on pre-epileptic phenomena. They may appear as irritability or irrational conduct, suspicion or false accusation, accompanied or followed by mania or epileptic furor, with suicidal and homicidal impulses. Every one who has had to deal with epileptics knows their irritable temper. We have seen that suspicion and false accusation are prominent characteristics of the morbid mental condition preceding the fits. To the permanence of such impressions or thoughts in the sensorium at the beginning of an attack is due, moreover, the purposed execution of many acts by the epileptic after his fits, for suspicion is then revived with maniacal intensity. These unreal suspicions—for they are more often false than real—constitute one of the most important features of the neurosis, for to the legal mind they may appear in the light of motive or malice aforethought. No doubt, in many instances, they do savour of malice, but it is the malice engendered by a distorted and disordered intellect, with a power of will so defective as to be incapable of restraining the exhibition of malevolent action. We shall go so far as to say that some know the nature and quality of the act, know they are doing wrong, but are about as powerless to stay their impetus as an engine in which the brake fails to act.

E. H—, 21, a congenital epileptic, had a fit at midday. He was observed to be somewhat restless and querulous in the evening. Next morning, after partaking of breakfast in bed, he rose, donned a dressing-gown, and with a gun in his hand proceeded to the room of one of his sisters. There he deliberately shot her through the head. He next attempted to shoot himself, but only succeeded in wounding his cheek. The door of the room, which he had locked, was forced. He rushed out, threw himself down several flights of stairs, and finally dashed his head against a wall. When secured and put to bed he informed a relative that the explanation of his conduct would be found in a letter to be procured by searching the pockets of his coat. This letter expressed his intention of shooting his sister and taking his own life. The contents displayed great rancour and animosity against his victim. He was conscious of what he had done, but expressed no contrition,—rather the reverse. He had been frequently heard to call this particular

sister "a beast," although apparently on good terms with the other members of the family. He was found guilty but insane.

L. E—, 23, suffered from traumatic epilepsy. One Sunday his brother prevented him going to church. After a restless night he rose early, secured possession of a gun, and meeting his brother shot him without compunction. He said he was perfectly justified in doing so, as God had commanded him to that effect. He was acquitted on the ground of insanity. He had frequent seizures, was often maniacal, saw the Almighty in visions, and died in the status epilepticus. The brain weighed 48 oz., and the left hemisphere was two ounces less in weight than the right.

The two succeeding cases are examples of homicide occurring during typical post-epileptic furor.

The first is the case of W. D—, whom we left in a post-epileptic sleep preceded by an aura or feeling of impending death. His mother and a neighbour were the other occupants of the room. The sleep lasted half an hour; he awoke, and immediately accused the neighbour of trying to poison him. It will be remembered that the painful aura occurred in her house. She endeavoured to soothe him; his excitement increased, he sprang to his feet, and threatened her with his fists. Meanwhile the mother had quitted the room to summon assistance. Observing her absence, he followed, and returned dragging her by the hair of the head. He then threw her on the ground, drew a clasp-knife from his pocket, and threatened to murder her. At this crisis several men, armed with wooden rails, entered the room, and after a struggle, during which the epileptic received a blow on the head, succeeded in rescuing the mother and obtaining possession of the knife. A rival blacksmith, against whom the epileptic bore a grudge, next appeared in the doorway; catching sight of him, the infuriated maniac seized one of the staves, and rushed at his rival, who fled, and made good his escape. Returning, the epileptic met one of the other men outside the house, attacked him, felled him to the ground, and rained blow after blow on the unfortunate man's head,—a characteristic example of epileptic fury. He was apprehended with difficulty, and, when charged with the crime, said that "they had worked him up, so that he could stand it no longer, watching and peeping about the house, and *that he had given Gell* [his victim] *one*." He was tried, and condemned to death, but the sentence was commuted, and for a considerable time he was an inmate of the lunatic wing at Woking prison. He was ultimately transferred to Broadmoor. For the most part he was melancholic and intensely religious. After his epileptic seizures mania supervened, lasting usually for a period of twenty-four hours. His skull was irregular in shape, showing a general bulging of the right occipital region, and being particularly thick and dense, especially over the right frontal area. The brain weighed 44¾ oz.; there was no abnormality noticeable.

W. L—, 27, had suffered from epilepsy for several years, the supposed cause being violent exertion at running. He had two fits, one about thirty-six hours before, and another twelve hours previous to the occurrences

we are about to relate. He was engaged in night work as a puddler, and proceeded to the scene of his labour accompanied by his eldest boy, aged fifteen. The boy stated that although his father was able to perform his work, he talked "senseless," answering questions by repeating "Yes," "Yes," "Yes," without seeming to understand what was said to him. They left off work at 4.30 a.m., and returned home. The boy had difficulty in persuading his father to retire to rest, but ultimately he succeeded in inducing his parent to go to his bedroom, he himself occupying an adjoining one. The son was unable to sleep owing to the noise made by the father, who continued walking about, alternately talking to himself and addressing his wife, and every now and then praying that God would forgive him. This lasted until 8 a.m., when the boy was alarmed by a loud scream from his mother. Hastening to the kitchen whence the noise proceeded, the boy beheld his mother on the floor, with his father sitting on her body brandishing a knife in one hand, and a poker in the other. The father attempted to seize the boy who was endeavouring to rescue his mother, but fortunately he escaped; and a woman, who was attracted to the scene by the noise, was told she would be served in the same way if she interfered. In the confusion the mother was enabled to regain her feet, and made for the door, but before reaching it was felled by a blow from the poker, the injury proving fatal a few days later. The epileptic, poker in hand, rushed up the street, smashed in the panels of a public-house door, and was only secured after a desperate struggle. Whilst being conveyed to the police station he sang and danced and prayed alternately. He managed, however, to inform a constable that "*he had done a job for his wife he had long wanted to do, and he hoped that God would forgive him.*" He was acquitted on the ground of insanity. During his asylum life he suffered from auditory hallucinations and delusions of persecution. He displayed the tendency to religion which is such a common phase in these epileptic cases. His behaviour was generally correct except after fits, when he became very violent; on several occasions he assaulted attendants. The brain weighed 47 oz. There was softening of the corpus callosum.

One point stands out clear and distinct, viz., that in many of these epileptic homicidal acts consciousness is retained, nor is memory obliterated, at any rate immediately, although subsequently it is possible that all recollection of the deed may be lost. It sometimes happens that, in dealing with these criminal cases, amnesia is confused with unconsciousness. From the fact of amnesia unconsciousness is inferred, because the two are thought to be identical. Amnesia, however, does not imply unconsciousness—the two are not the same. Unconsciousness, being a cessation of all psychic activity, naturally includes amnesia, but amnesia does not necessarily include unconsciousness. The retention of consciousness, and even of memory, is perhaps most frequently seen in those cases in which there

exists a pre-epileptic condition of suspicion or smouldering hatred fanned into the highest intensity in the post-epileptic stage. The degrees of possession of the delusional thought prior to the fit, and the purpose accompanying the delusion, are such as not to efface from the memory of the epileptic the acts which he has unwillingly accomplished under the irresistible thraldom of the attack. Consciousness and memory are, therefore, not inconsistent even with epileptic furor.

There are post-epileptic states, however, during which criminal acts are performed in an unconscious condition. These cases are of necessity amnesic. Savage states that a fit of greater or less degree may or may not be followed by sleep; any may then be followed by fully organised and definite unconscious and automatic acts. These cases, he affirms, are analogous to the so-called masked epilepsy. Take the case of the woman, E. C—, first quoted by Dr. Orange.

One day, whilst dressing her infant, she rose with the view of procuring some bread and butter for another child. She had a slight seizure, and instead of cutting the bread severed her infant's arm at the wrist. When she recovered consciousness she found several neighbours and a policeman in the room, the latter taking from her the severed hand, which she was fondling. Once before in cutting bread she unconsciously injured her thumb. She had no recollection of either act. During her asylum life she suffered from both grand mal and petit mal. The attacks usually came on about the third day after the catamenial period. She was occasionally maniacal, gradually drifted towards dementia, and finally died of cancer of the vagina. Calvaria thick and dense; dura mater thickened; ventricles distended with fluid; convolutions apparently normal. Weight of brain 40¾ oz.

A somewhat similar case was that of H. J—, who became subject to epilepsy after head injury, and intensified by habits of intemperance. He went to a slaughterhouse with the object of interviewing a man concerning the killing of a pig. On returning home he beckoned his little girl, who was sitting on the doorstep, into the house, and he had no recollection of anything happening, until a few minutes afterwards he discovered the child lying across his knees with her throat cut. He had no return of fits until February of this year, when a severe seizure occurred—an interval of twelve years.

These cases are instructive; the pre-epileptic idea filling the mind had no trace of malice or suspicion; it was perfectly innocent, and yet became transformed into a post-epileptic criminal act,—the infant's arm became the loaf, the child's throat that of the pig. Mark the distinction. Where suspicion and malice were present in the pre-epileptic stage the result

was conscious criminal acts without loss of memory; where suspicion and malice were absent, unconsciousness, and therefore amnesia, prevailed.

The automatic acts above described were simple and uncomplicated in their character, and they took place immediately after a seizure, with the weapon ready at hand. It is claimed, however, that a person during post-epileptic automatism may, with or without motive, perform more prolonged, purposive, and intricate acts of a criminal nature, at the same time selecting a favourable environment for his misdeeds. When there is no definite history of a fit, proximate or otherwise—and this is sometimes not ascertainable—the proof mainly hinges on the amnesia. The question then comes to be, is the amnesia real or assumed? It is a most difficult problem to solve, and a decision can only be arrived at after repeated cross-examination. The difficulties of the position are increased by the fact that no person is bound to incriminate himself before trial, and the examiner is, in a measure, handicapped, because it is almost his duty to inform the examinee of this before commencing to question him; and the difficulty is further enhanced if the accused's solicitor and friends have had access to him before the examination, and still more so if he has been placed in association with other prisoners. If they do not tell him "to hear voices," they will assuredly urge him, in prison parlance, "to keep his mouth shut."

A man bears a grudge against a neighbour; he selects his weapon, goes to the neighbour's house, asks if he is at home, desires to see him, all the while concealing the weapon as best he may, and on his neighbour's appearance deals him a fatal blow. There is no definite history of epilepsy, but the defence is post-epileptic automatism, and the defence prevails. He recollects nothing from the day before the crime until several days afterwards. In an unguarded moment, however, whilst under examination, he reveals the identity of the policeman who arrested him, his occupation at the time of the arrest, which he stated took place two hours afterwards. After what? A look of chagrin, no answer, and no further information. Apart from the automatic theory, the man was morbidly suspicious, and had a definite delusion. This is no imaginary case.

The question of amnesia, in relation to crime generally, is very important. In the case of the accidental or occasional criminal who commits a homicidal act, although he may reveal the attendant circumstances leading up to the

crime, it is very rarely that he can be induced to confess the actual details of his misdeed. It requires a great mental effort to so confess. One man stated that the questions put to him caused the most exquisite mental torture, and that he felt as if he were being literally dissected. Can we then wonder at the reticence displayed? On the other hand, our experience of a vast number of offenders leads us to the conclusion that the average criminal is profoundly amnesic. To use his own phraseology, he is either in prison innocent, or he is there for another man, or he was so drunk at the time that all recollection of the offence is blotted out. The fact is that the average criminal is wont to handle the truth very carelessly. In the October number of the *Journal of Mental Science*, Dr. Mercier comments on the case of a man who was indicted for wounding his son and attempting suicide. He was bound over to come up for judgment if called upon. Dr. Mercier remarks, "With the verdict and sentence we cannot fail to agree, but it is noticeable that the prisoner on his discharge from hospital said he knew nothing about it until it was done, although previously, at the time of the act, he explained why he did it. It is a common device of criminals to pretend they know nothing of what they were doing when their crime was committed, and such a statement should always be received with great caution."

To return, however, to the subject of epilepsy.

(3) Mental disturbances between fits usually take the form of paroxysmal outbreaks of maniacal violence. These outbreaks are characterised by the extreme suddenness of the onset, and their essential features are in all respects similar to those hitherto described.

(4) Mental derangement in substitution of fits generally assumes the form of chronic insanity, the fits having ceased. Clouston states that he has only seen four or five cases where this took place, and they all occurred at the termination of the reproductive period of life. The mental condition is either that of enfeeblement with or without recurrent mania, or chronic mania.

E. G—, 23, single, a congenital epileptic, drowned her illegitimate child in a river. One of the features of her case was rather singular. Immediately before the occurrence of a seizure she began to undress, but before the act of disrobing was completed she fell to the floor

convulsed. The epileptic fits continued for the space of three years after admission, then ceased, and for a long period of years none have been observed. Her condition is one of mental enfeeblement, and she devotes her whole time and attention to the care of another epileptic, whose seizures are comparatively frequent.

E. C—, subject to epilepsy from infancy, was admitted when thirty-seven years of age, after being tried for the murder of her brother's child in a state of post-epileptic mania. The seizures lasted for five years after admission. They ceased, and a condition of chronic mania supervened; this has gradually given way to a more quiescent form of mental disorder, characterised by maniacal outbreaks—now, however, of an intermittent character. She is an industrious needlewoman, easily irritated and easily appeased; when talking volubly she repeats words and the termination of sentences—an example of the epileptic echo.

S. T—, a widow with several years' history of epilepsy, killed her two children with a billhook, mutilating them in a shocking manner. No fits have appeared for a number of years, but she exhibits the typical epileptic temperament. She is flighty, restless, querulous, discontented, often talking in a loud and aggrieved tone of voice. She becomes acutely maniacal at intervals with dangerous impulses.

In conclusion, we have satisfaction in noting that the insanity of the great majority of the Broadmoor cases was recognised at or before trial. In the consideration of these cases we have endeavoured to give a general idea of the relationship of epilepsy to crime. To the lay mind a severe epileptic fit is something in the nature of a portent; and even the legal mind is, to a certain extent, permeated with the mystery and gravity of the visitation. The lawyers are ready to concede that a recognised case of epilepsy is not at all times responsible for his actions, but in isolated and somewhat rare forms of the disease they are apt to be more sceptical, and the plea of irresponsibility is not so easily determined. In these cases the medical evidence and the records of medical experience should be stated with prudence and moderation, and received with consideration and respect, for by that path only lies the way to truth, which must be established before justice can prevail and the public safety be assured.

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Discussion

At the meeting of South-Western Division at Broadmoor, October 30th, 1900.

Dr. Nicolson.—It is vexatious that a subject of this vast importance and scope should come before us with such a limited time for discussion. My own feeling in the matter, or in the abundance of matter, which has been submitted to us by Dr. Baker is, that after all we must come and deal with each individual case on its own merits as it comes before us, and as it is submitted to us for our examination, with whatever amount of responsibility may rest upon us for the time being. There can be no doubt that epilepsy has formed a bone of contention to pathologists, and even the best of them have been unable to give us anything in the nature of a satisfactory answer as to what it is. We know it by its results, and we know socially to our cost what mischief it makes in our midst, even if it does not end in a criminal act. But it is more particularly with regard to these criminal cases, I take it, that Dr. Baker has written this paper, which I am glad to have the opportunity of congratulating him upon. First of all we have to be assured that we are dealing really with an epileptic. Is the individual an epileptic, or was he at the time he committed this act? Is he an individual who is reported to have had an epileptic fit, who is believed rightly and properly at some time of his life to have suffered from epilepsy. Or is he an individual who is known to have had convulsions during his teething in childhood, and whose fond mother takes great care this condition shall not be forgotten when he gets into trouble as a youth? We have to take into consideration a great variety of conditions. The question of obliviousness or forgetfulness as to the act committed is one of the most difficult in cases of criminal lunacy. It is a condition of things which my experience has taught me to be very sceptical about in individual cases, as it occurs in every phase of intensity, from complete obliviousness of the act in a very few cases, to confusion and indistinctness of memory in some, and to feigned loss of memory in others. In the great bulk of cases of genuine lunacy there is a good memory of the act and of the reason for its being committed. I am quite sure you will agree with me that Dr. Baker deserves our best thanks for the work he has done, and for submitting it at this meeting.

Dr. Scott.—I quite agree with Dr. Baker's remarks as to the difficulty of getting persons when under examination to remember. Very frequently in examination I have had considerable difficulty before I could arrive at a proper conclusion. I also agree that after they have been among other persons they are put up to all sorts of dodges, by their friends, solicitors, and others also. The plan I generally try is to interview them before they have had any opportunity of being so got at, within about twenty-four hours after the crime, and, after cautioning them, to get their story. In many cases, as has been said by Dr. Baker, the tendency is to jump too readily to the conclusion, where we cannot find a motive ready at hand, that epilepsy was the cause. I was impressed lately in reading a recent number of a French medical journal, in which they referred to a case where a medical man who had led a blameless life became mayor of his town, and suddenly gave way to immoral practices. He gave as his reason that he was studying the morals of his district, and was making experiments. He was examined by a number of medical men, who could find no symptoms of insanity. A doctor took his measurements and found a depression in his skull, and he gave information as to an accident in his youth. They reported to the courts he was suffering from epilepsy. I can find no further evidence than the depression in the skull. You said, sir, that the question of epilepsy hardly ever comes up after sentence of death. I remember one case a number of years ago, tried before a judge who frequently made strong remarks upon medical evidence. A man, well-known to be an epileptic, in a post-epileptic state got on the top of his house, and shot several of his family, injuring two or three, and killing one. The evidence was very strong as to his suffering from epilepsy, and several medical men gave evidence. The Judge, in his summing up, was in favour of the verdict of guilty, and taking no notice of the evidence of the medical men, simply remarked that he had heard the nurse, who seemed an intelligent person, tell them that sometimes in place of the fit such people would have an attack of violence. But as a rule I quite agree with you that where epilepsy can be well established it is accepted by the courts as the probable reason for the committal of the crime.

DR. STEWART.—I think we owe a debt of gratitude to Dr. Baker, because we want to have put before us the whole ground of the foundation of our reasons and thoughts in reference to the importance of epilepsy in connection with crime. I was very much interested in his reference to the influence of alcohol upon the brain. I was very glad to find that the reader of this paper was in accord with myself in regard to the exaggeration—I can use no milder term,—the exaggeration of alcohol as a psychological factor. I do not say that there are not a great many cases of insanity which may be traced to alcohol as the productive agent, but I do say that there are more cases of alcoholism as a result of insanity than of insanity as a result of alcohol. I think it is the mixing up of the two things which we have to contend against. So it is with regard to epilepsy and crime. We find men in the law courts who accept opinions which are not founded upon absolutely reliable data. I have on one or two cases been obliged to ask the judge to defend me from the barrister of my own side, or rather on the side of him who has summoned me; and I think it is too bad when one finds in courts of law one's self confronted with statements, held to be incontrovertible statements, which men like yourself have frequently doubted as being absolutely correct.

The thanks of the meeting were conveyed to Dr. Baker for his paper.

Unilateral Hallucinations; their Relative Frequency, Associations, and Pathology.

By ALEX. ROBERTSON, M.D., F.F.P.S.G., Consulting Physician, Glasgow District Lunatic Asylum, Gartloch; Professor of Medicine, St. Mungo's College, Glasgow; late Physician, Royal Infirmary, Glasgow.

BOTH in physiology and pathology the study of simple, incomplete, and degenerate forms usually sheds a light, sometimes very clear, on more complex and perfect types. For example, such works as those of Spencer, Maudsley, Laycock, and Carpenter show how much the relation of mind to organisation is elucidated by careful observations of the nervous system in the lower orders of the animal kingdom, and of its condition in the abortive and morbid specimens of the human species. In pathology, more particularly, it is not usually where disease has attained full maturity or has advanced to its last stages that we may expect to find its point of origin, mode of progress, or essential nature; rather it is where pathological change is only beginning, in tissue that deviates but little from the healthy standard, or in function that is but slightly disturbed: so in the special pathology of the nervous system much may be learned regarding the more serious diseases by minutely examining and considering the features of the slighter and less striking disorders.

In this connection the group of phenomena that form the subject of the following paper are of considerable interest; so also is the relation in which they stand to each other, and to similar events in other parts of the nervous system, such as the motor, sensory, and even nutritional spheres; how far they may be considered as simply analogous conditions without causative connection, and to what extent, in certain cases, they may be correlated. Besides, as merely important incidents in the disorders of which they are symptoms they merit close observation. Attention will first be directed to one-sided hallucinations of the different senses.

It has long been known that hallucinations, instead of being apparently derived from the double organs which minister to the sense or senses involved, may seem to arise from only one of these organs,—may, in short, be unilateral. Thus Brierre de Boismont, in his book on hallucinations, refers to Calmeil's observations on phenomena of this kind, and more particularly to those of M. Michéa, who named them "d'hallucination dédoublée." He quotes from the latter a striking case in illustration, and also states that such hallucinations occur in the senses of touch, sight, and hearing. Gall relates the case of a Minister of State in Vienna, who was constantly hearing insulting expressions on the left side, so that he was very often turning his eyes in that direction to see where they came from, although, Gall adds, perfectly convinced on the right side of his head that they were delusions of the left side. Griesinger states that a patient was under his care in whom the hallucinations of hearing were confined to the left side throughout the whole duration of his insanity. Van der Kolk narrates the case of a female patient who was continually plagued by the devil talking in her left ear, and remarks, "This is, moreover, the only case with which I am acquainted where the hallucinations were confined to one ear."

These references will suffice to show that the older Continental physicians were familiar with the occurrence of this class of psycho-sensory disorders. When my own attention was directed to the subject in 1874 by a case of mental disease in which left-sided hallucinations of hearing were present, I could find no reference to this group of symptoms in English medical literature. With the view of ascertaining the frequency of their occurrence, as well as from the interest I felt

in them by their apparent parallelism to the unilateral disorders of motion and sensation, I made a careful examination of 250 insane patients, these being, with a few accidental exceptions, all the cases in the asylum under my charge during that year. The results of my observations were embodied in a paper read at the Edinburgh meeting of the British Medical Association in 1875.(1) In the present communication I shall first submit an abstract of that paper, and afterwards supplement it by some details of similar cases that have since come under my observation. This will yield a basis for general considerations respecting the relations and pathology of these phenomena.

Amongst the 250 patients 34 were found to entertain clear and well-defined illusions or hallucinations of one or more of the senses. These 34 were by no means all who were so afflicted. There were many more in whom the sensorial disorders were so combined with delusions proper, or whose intellect was so enfeebled, or who were so obstinate or reticent, that reliable information could not be obtained from them. My observations, therefore, have reference only to these 34 patients.

No fewer than 31 heard imaginary voices, besides, in some cases, other unreal sounds; only 3 were free from auditory troubles of this kind. Twenty-nine were either seeing imaginary forms at or about the time of my examination of them, or adhered to the belief that they had seen them at some previous time since their illness began. Two suffered from illusions or hallucinations of taste, and 1 from similar disorders of smell; both sight and hearing were unaffected in each of these cases. In 1 the hallucinations were confined to taste; smell, sight, and hearing being normal. Fourteen complained of various alterations of general sensibility, such as stinging pains in arms or legs, feeling of numbness, localised in some, but varying in its site in others, and various other sensations, some of which were probably real.

Of the 31 cases in which hearing was involved, in 5 the voices were heard only in the left ear, and in 5 others in the left more than in the right; in 1 they were audible in the right ear alone, and in 2 they were stated to be more distinct in that ear than in the left.

The disorders of all the other senses were bilateral; at all events, they could not be determined to be unilateral, except

to some extent in one patient who saw the hallucinatory objects much more distinctly with the right than the left eye. The objects seen in this case were of different colours—black, blue, and red being particularly mentioned. There was no apparent difference in the ordinary visual power of the two eyes when they were subjected to examination.

With respect to the causation of the unilateral cases, in 3 the mental disorder was clearly and immediately due to alcohol; and in 2 of the other 3 the patients had been previously of drunken habits.

These 6 cases are recorded in detail in the paper referred to, but as they have been already published, I shall merely mention that their features correspond to those in cases that have since come under my care, some of which will now be described, though mostly in more condensed form.

CASE 1.—J. W—, æt. 36. This man was an inmate of the Town's Hospital. He told me on admission, which was in 1877, that about eight years previously, while undergoing a sentence of imprisonment for theft, after about a year's solitary confinement he began to hear "voices," though alone in the cell. They varied greatly, were sometimes loud, at other times like a whisper, and seemed to him to resemble the voices both of men and women whom he had known. They have troubled him to a greater or less extent since that time. They have always been in the *right* ear, and patient is sure that he has never heard them in the left one. He mentioned of his own accord, and without any suggestive questions, that he had been in the habit of putting cotton into the right ear, which he believed had occasionally put them away altogether, although it had often little or no effect in modifying their intensity. At times he was disposed to think these voices real, though very generally, as when he was conversing with me, he knew them to be imaginary. The actual hearing power of both ears was ascertained to be equal and unimpaired.

He had also visual hallucinations. "I imagine," to use his own words, "I see both men and women, particularly with the *right* eye, and sometimes almost fancy them to be real." He said that they were of different colours, and appeared most frequently at dusk, adding that he saw them when the eyes were shut as well as when open.

CASE 2.—J. M—, æt. 48. This man was found guilty of having murdered his wife, and was sentenced to death. Grave doubt, however, having been felt as to his complete soundness of mind, an after inquiry was instituted, as a result of which his sentence was commuted to imprisonment in the Scottish Criminal Lunatic Asylum at Perth. He suffered from a form of alcoholic insanity, and Dr. (now Professor) Wm. Macewen directed my attention to the fact that the imaginary voices which troubled him and prompted the criminal act were said by the prisoner always to be in the left ear. Beyond confirming this fact I am unable to give further details of the case.

CASE 3.—M. R—, æt. 65. This woman stated when about to be dismissed in sound mind, after about four months' residence in the asylum, that for a long time before her insanity commenced she heard a noise like the sound of a water-wheel, always on the *right* side of her head, which, though at first limited to that side, had become general, not being latterly associated with the one ear more than the other.

CASE 4.—J. M—, æt. 25. This man's illness was due to recent excesses in alcohol. He had hallucinations, both of hearing and sight. He stated after his recovery, as well as while his disorder lasted, that the voice which he heard was like that of a deceased sweetheart, and that it was always in his left ear only. "I turn," he said, "instinctively to the left." It was otherwise, however, with the visual disorder, as the imaginary objects were seen with both eyes equally.

CASE 5.—J. C—, æt. 32. This also was a case of acute alcoholic insanity. With the exception of the hallucinations of hearing this patient's mind was remarkably clear and calm, and none of the other senses were involved. He spontaneously remarked that the voices were all on the *left* side of the head; they seemed to him to repeat his thoughts. Thus, when he thought of going home to his wife the voice said, "Go home and see the wife."

CASE 6.—R. M—, æt. 50. Patient states that he has been drinking to excess for a week. With the exception of hallucinations of vision and hearing mind is apparently correct, though he is a little excited. He imagines he is receiving telephonic messages. While I was speaking to him he turned towards the *left*, saying, "Wait till I get this message from America." Though he says that the messages always go in at the left ear, he adds that they go out at the right one.

CASE 7.—F. R—, æt. 47, is a very intelligent man, and mind on admission was only slightly affected. He stated frankly that he had been much addicted to the drinking of whisky for some years, and that for the last two days he had been fancying that women and children were crying after him; but he remarked, "It was just the notions from drink." On asking him if he heard the voices in the one ear more than the other, he replied, without hesitation, that he heard them only in the *left* one. On this point he further said, "So satisfied I was that the voices were on the left, while being brought here, I turned to that side and looked out of the cab window to try and see the people who were crying after me." After a sound sleep he said to me, "I don't for a moment think that the voices were real, but I heard them as distinctly as I hear yours now." Again he mentioned that they were all on the left side.

CASE 8.—I am indebted to the late Dr. P. Cassels, an aural surgeon of Glasgow, for the account of the following case:—A. B—, æt. 26, consulted him occasionally for some years on account of tinnitus and the sound of a voice in one ear, but Dr. Cassels was not certain whether it was the right or left. These troubles dated from an accident that befell this gentleman while "canoeing" on the Tay, the boat having been upset, and himself nearly drowned. Directly afterwards he began to hear the voice in one ear always repeating, "Come this way, come this way." Dr. Cassels considered that this was the cry of the persons on the bank when the accident happened, which, as

might be expected, had produced a profound impression on the patient. He was quite aware of the unreality of the voice which continued to trouble him, and there was no ground for supposing him to be insane.

CASE 9.—This case I have seen on several occasions during the last two years. It is that of a lady who had been long subjected to the intermittent toxic action of lead through contamination of the water-supply of her home before the source of the poisoning was discovered. Among other troubles to which it had given rise was multiple neuritis and mental disorder with hallucinations. While confined to bed she was afflicted with voices, which always seemed to come from the *right*-hand corner of the ceiling of her bedroom. Concurrently with the administration of treatment for the elimination of lead from the system the voices ceased, but the general mental disorder has not improved.

CASE 10.—A woman æt. 70, inmate of the Glasgow Aged Men and Women's Home, has for about two years complained of voices in the *left* ear, and also frequently of singing noises on the same side; the latter, she says, preceded the voices. About a year since, when she first spoke to me about them, she appeared to have no doubt that they were imaginary, and even now says they are so, though sometimes with hesitation. Latterly at night she has been troublesome to those near her by speaking aloud, apparently answering the voices which are probably then real to her. Her sanity at first could not be called in question, but latterly her mind as a whole has been somewhat disturbed, and I fear the development of positive mental disease. The imaginary words she hears have not varied much during later months, and have been "very good, hail" most commonly. She is positive that both sounds and voices have been in the left ear only.

In the early part of this year (1900) Dr. J. Kerr Love, aural surgeon to the Royal Infirmary, was good enough to make an examination of the state of this woman's hearing, and of her ears generally. I need not now submit his careful report in detail, and will only refer to his conclusion, which is to the effect that while her right ear is practically normal, both aural and bony conduction on the left side is very defective. He says, "I think there is damage to the auditory nerve, or its expansion in the internal ear of the left side."

Personal experiences.—The two following experiences of the writer are here recorded in further illustration of the subject under consideration. Strictly, only the first was one-sided; the second, though of a general character, has a bearing on the extension of hallucinations of all kinds.

At the outset of my professional career I happened to have a smart attack of catarrhal conjunctivitis. My professional colleague in the institution where we were both assistants put two or three drops of what was considered to be a four grains to the ounce solution of silver nitrate into the affected eye. Immediately there was a free flow of tears with spasmodic closure of the lids, and flashes of light in that eye. A few seconds later, in addition to the above phenomena, there set in rapidly recurring booming sounds, as of the discharge of artillery in the

ear of the same side. Soon—not more than half a minute afterwards—a feeling of general intense strain with excitement set in, giving rise by its acuteness to the impression that if it did not abate quickly something would give way in the brain. In two or three minutes more it did subside considerably, and all special symptoms passed off within an hour from the time of the application of the caustic solution.

My next experience was of a different kind. It occurred in the year 1881. I had then severe colitis, with localised peritonitis. To relieve the intense pain much morphia was given me, both subcutaneously and *per rectum*. This it did, but at the same time vivid hallucinations arose. At first, and for some hours, they were restricted to the sense of sight. The earliest to appear were dissecting-room figures. Very disturbing was the side of a child's face, which presented itself entire at first, remained in view for a few seconds, then disappeared, but after a brief absence returned, the lowest portion of the face having been removed. This was repeated two or three times, another bit of the face, always from below, having been cut off during each absence.

The scene which has impressed itself most deeply on my mind was one which appeared when my bodily suffering was considerably alleviated. In the foreground, chiefly but not exclusively to the left, looking down from above were a number of faces of aged and venerable-looking men. The expression on all was calm, serious, and reverent. In front, beyond these faces, at what may be described as the middle distance, was a light in the form of a star, but of much greater magnitude than any star in our horizon. Its colour was of the deepest crimson, and its penetrating power was intense, yet the area which it illuminated was not a wide one. Beyond, all around, was profound darkness, a darkness which, strange to say, I could see into, and observe that it extended to a seemingly interminable distance. While intently surveying the scene before me, and more especially the star-like light in its centre, a voice, which seemed to come from behind and above, said in clear and distinct tones, "The dawn of the eternal day." I heard no other voice in this connection.

On several succeeding days I almost constantly saw visions. I was then gradually recovering from my illness, and the effects of the morphia were slowly passing away. They were for the most part more or less exact reproductions of scenes in many lands that I had visited. Perhaps the most perfect was one in Canada West, near where I stayed for about three weeks. Another was of the Lake of Lucerne, considerably modified. These visionary scenes were projected on to the wall opposite me as I lay in bed. I could see the wall distinctly through them, just as stars are visible through the train of a comet. When my bodily trouble had clearly subsided, the visual hallucinations assumed more pleasing forms than they had in its acute stage. But after two or three days they became wearisome, and their persistence began to worry and alarm me. However, they slowly grew fainter, and after lasting about a week in all, disappeared entirely.

It is to be observed that these hallucinations of sight and hearing were present when I was fully awake. Those of sight were visible in the more severe stage of my illness, even when my eyes were closed, but when recovering they were most distinct when the eyes were open.

Though as real to me at the moment of observance as any genuine object, yet even at the worst period of the trouble, when I thought about them, I fully appreciated their unreality, and spoke of them to my relatives and medical attendants as of opium origin, comparing them to those of De Quincey, though falling far short of his visions in the fulness and richness of their imagery.

In all, I have notes of fifteen definite cases of unilateral hallucinations. During the last ten years my opportunities of observation have been more restricted, otherwise I would probably have been able to record a larger number. In reviewing these cases it will be observed that the sense of hearing was always involved, and that in twelve of them they were on the left side. No pure cases of one-sided visual hallucinations were found, though in two the imaginary objects were seen more with the one eye than with the other. No clear case of unilateral affection of the sense of taste or smell was noticed, though such cases are on record. It will be observed that in Case 10, singing noises preceded the voices in the affected ear, but in it there was clear disease of the auditory nerve. In this case it is interesting to note the presence of one-sided auditory hallucinations without insanity; while in another case of alcoholic origin they remained for some hours after the patient realised that they were imaginary—after he was of sound mind. Although the number of patients in whom the hallucinations were one-sided was not great, it is to be borne in mind that several others heard the imaginary voices more distinctly in one ear than the other. In one of them they were heard occasionally in the left, and at other times in the right ear, generally the former; but never in both at the same time.

General Relations of One-sided Hallucinations.

The phenomena we have been considering are limited to the sphere of the special senses. The question arises, Are analogous conditions present in the other great departments of the nervous system? The following case, quoted from my paper published in 1875, illustrates a somewhat similar event in the realm of general sensation:

J. B—, æt. 52, hears imaginary voices, and the voices are most distinct in the right ear. The insanity is of several years' standing, and is stated to be due to the intemperate use of alcohol. About thirteen

years ago his right leg was amputated immediately below the knee, on account of an injury received in a railway accident. Since his admission into the asylum he has frequently complained of starting or burning feelings in the stump, which seems quite healthy. These are described occasionally as like a flame of fire, and are said to extend upwards to the body. He further states that "the blessed Virgin, angels, and men" go in at the stump, but sometimes the visitors are devils. They usually tell their names when they enter. They go up to the throat, and generally make their exit there, but now and again they return and leave the body through the stump. This occurs both day and night, but most frequently during the day. There is no peculiar sensation or more defined delusional idea associated with general sensibility in any other part of his body.

In this case there was generalised insanity; but the one-sided character of the hallucinations (illusions?), and their association with the stump, indicated that the mutilated limb, possibly the condition of its nerves, had at least exercised a modifying influence on these hallucinations.

Further, in the great department of sensation, and sometimes strictly limited to it, we meet with disorder and occasionally complete obliteration of function. This may be of organic origin, and due to lesion of the posterior part of the internal capsule. But the purest cases, which are also better analogues of one-sided hallucinations, are met with in hysteria. Patients have been under my care in whom there was complete abeyance of sensation in its various forms—touch, pain, heat, cold, muscular sense; inclusive also of the special senses of sight, hearing, smell, and taste—defects which were confined to one side of the body. Cases of this kind are by no means uncommon, and it is unnecessary to submit their histories in detail.

The question arises, is there, in disorders of general sensation, any degree of parallelism to the extension of hallucinations from one sense to another, on the same side, or from the one side to the other side, such as occurred in some of the cases recorded in this paper? In simpler form there appears to be a correspondence in the irradiation of morbid sensation from one nerve to another. Thus a decayed tooth occasionally gives rise to a severe supra-orbital neuralgia, and a diseased hip-joint may disclose itself chiefly by pain in the knee. In these cases the extension is on the same side, but it may be to the other side. In illustration may be mentioned that the smart pinch of an anæsthetic limb has

been known to appear to the mind as a painful sensation in the corresponding part of the sound limb; or the converse may happen, as is well shown by a case of Dr. Bastian's, in which the application of a cold spoon to an anæsthetic arm produced a pricking sensation, followed by convulsive movements of the whole limb, which phenomena, after they had subsided, were revived by the application of the same spoon to the corresponding part of the sound limb.

In the motor region of the nervous system there are very similar events. They occur chiefly in three groups, the convulsive, the choreic, and the paralytic. All of them may be unilateral. Unless they are of an hysteric (neurotic) character, it is not often that they are of functional origin; usually there is an appreciable organic lesion of the one side, though that may be very minute. As will be evident in considering the pathology of these conditions, though due to definite lesion, they do not thereby cease to be analogous to one-sided hallucinations.

Spasmodic or convulsive action not infrequently begins in the muscles concerned in the production of a single movement. This is illustrated by the case of a lady who is at present under my care, and who formerly suffered from a severe form of epilepsy. All throughout her illness the seizures began in the flexors of the great toe, inducing painful cramp, and thereafter there was upward extension to the trunk, involving gradually all the muscles of the limb. The seizure might stop there or become generalised, and be associated with unconsciousness; or, as now for many years, it might never go beyond this foot. But, as I have seen in other patients, the morbid action may begin in a thumb or forefinger, or hand as a whole, or the side of the face, from each of which there was systematised extension, implicating fresh combinations of muscles and resulting movements as it progressed.

Choreic twitchings are more irregular in the order of their development. Sometimes, however, for a short time they are confined to one arm, or leg, or one half of face, all of the same side. But much more frequently, though the spasmodic movements may be very pronounced on the one side, and apparently limited to it, careful examination will show that they occur occasionally on the other side also.

Unilateral paralytic conditions, either partial or complete, of

a functional character are by no means rare. Ordinarily the paralysis is hemiplegic in its form, but it may be limited to one arm or one leg. Much more rarely the loss of power may be restricted to a solitary muscle. Thus one of my patients, a girl twenty-three years of age, who was admitted into the Royal Infirmary on account of spasmodic paralytic and mental disorder of an hysterical character, prior to the setting in of these definite symptoms suffered from complete ptosis of one eye. For this she consulted an oculist, who excised a portion of the upper lid, with the result that when the muscle recovered its power, which it did as abruptly as she appears to have lost it, she was unable afterwards to completely close that eye.

There is no doubt that disorder of the vaso-motor system may also be altogether unilateral; usually the altered calibre of the blood-vessels so arising is associated with defects in the motor and sensory spheres, and is perhaps, in some instances, causative of them. This combination of symptoms is often seen in hysterical cases, where with abeyance of motion and sensation, hemiplegic or paraplegic, or both, as in a case recently under my care, the circulation of blood through the small vessels of the parts implicated is profoundly affected,—as a rule, retarded. For example, when one thrusts a needle into a leg or arm in this condition, as I have sometimes done, the flow of blood from the puncture is much more sluggish than usual, and may be all but absent.

Reviewing these phenomena of the sensory, motor, and vaso-motor systems, it will, I think, be obvious that each group in its own sphere and of its own kind bears considerable resemblance to the unilateral psycho-sensory manifestations which form the chief subject of this paper. It is where the disturbances of these great systems are of a neurotic character that the analogy is most complete. Thus the unilateral hallucination of hearing in a man of sound mind (Case 8), in which there was a reproduction of real voices heard at a time of supreme peril, imploring him to "come this way," these being the only words reproduced, has its homologue in the motor sphere in the case where the only definite loss of function was in a solitary muscle.

Further, the order of succession and variety in form in the hallucinations of sight and hearing of my own opium experiences appear to have their counterparts in the extension of

one-sided convulsions, beginning, for example, in the big toe or the thumb, and implicating, as they spread, a progressively increasing range of muscular combinations.

The analogy between the sensori-psychical and somatic phenomena is still further maintained when the purely mental condition of the patients in the two classes is considered. Reverting to the cases with hallucinations narrated in the earlier part of this article, it will be seen that the patients were mostly insane, or were just recovering from mental unsoundness. One woman (Case 10) is slowly passing into generalised insanity. Turning now to the sensory and motor disorders, it will be observed that in the most typical and characteristic cases the patients were neurotic. In many of them the mental state was very unstable. Three had well-marked attacks of mania, of whom one died insane. Others were of a wayward, impressionable, emotional mental constitution, between which and positive insanity the distance is not great.

Pathology.—The pathology of unilateral hallucinations will now be considered. The question suggests itself, in such cases was there disease of the nerves on the affected side, which by extension upwards to the highest region of the brain would explain the one-sided feature of the phenomenon? A short study of ordinary hallucinations will help to elucidate this point. "In ([2]) a number of cases of bilateral hallucinations on record the nerves of the special sense or senses involved were found atrophied or otherwise diseased after death. Thus, in some instances of illusions or hallucinations of vision, the optic nerve and tract are stated to have been in a morbid condition. The most important case of this kind that has been recently published is one by Dr. Clouston, in which disease of the nervous system, beginning by blindness, afterwards developed into general paralysis with insanity. On examination after death by the microscope, that gentleman was able to trace degeneration along the optic nerves and tracts as far as the *corpora quadrigemina*. Dr. Batty Tuke has published cases of hallucinations of smell and hearing in which the olfactory bulbs were much degenerated in one patient, and disease existed in the neighbourhood of the *portio mollis* in another. What has been observed where the phenomena are bilateral doubtless occurs occasionally where they are only unilateral, although I

have not observed that any cases of this kind have been recorded. I myself had a patient under me with blindness of one eye in whom, after death, the optic nerve was seen to be greatly atrophied ; but he was not insane."

In Case 10 of the present paper disturbances of hearing preceded the hallucinations of the same side. The aural surgeon found that disease exists in the nerve of that ear. It seems, therefore, not unlikely that there may have been an upward march of morbid action from the peripheral distribution of the nerve to the related auditory centre in the back part of the upper *temporo-sphenoidal* convolution ; but I need scarcely say that there is no feeling of assurance on this point.

"The probability of such extension in some cases from the sense-organ to the highest cerebral ganglia appears to be supported by the facts ascertained regarding general paralysis. Both clinical examination of the course of this disease and microscopical examination of the morbid parts show that it occasionally commences in the cord and gradually creeps upwards to the brain. Cases have occurred in my own experience where the progress of the symptoms led me to that conclusion regarding its origin."

"But though impressions received by the organs of the senses whose nerves are in a morbid condition may in some instances, when conveyed to the sensorium, be transmuted into forms most unlike the objects they represent, and further be accepted by the mind of the individual as real, should he be insane, it is probably not often that either illusions or hallucinations arise in this way. They are in all likelihood much more frequently due to disease in the sensorium itself or in the 'perceptive centres,' which, there is reason to think, exist in the hemispherical ganglia. An excitation of the visual sensorial centre, for instance, by a pathological process within itself would, in accordance with well-known laws of nervous action, produce images of objects external to the individual, though no such objects were really there. Or if a perfectly healthy impression coming from without were made on the centre while in that condition, the images presented to the mind would probably be altered as much as, or probably more than, if the transformation had occurred in the organ of sense itself or at any point before the impression reached the morbid centre."(8)

The possibility of modification of structure in afferent nerves

and their peripheral distribution in sense-organs by extension downwards of morbid action from the cortical perceptive areas, when in a state of disease, is worthy of consideration. Obviously this problematical route is against the direction of the normal current in sensory nerves. But this objection loses much of its force when it is remembered that lately we have been constrained to alter, to some extent, our views respecting the lines of Wallerian degeneration. We now know that in disuse, and particularly in severe lesions of nerves, such as those experimentally inflicted on the lower animals by von Gudden,(4) damage to the neurons results, both inwards and outwards from the seat of lesions; and it has also been shown that degeneration occurs in the case of an *efferent* nerve, such as the hypoglossal, in the cells of the nucleus from which it takes origin.

It is very conceivable, therefore, that in a case of insanity in which hallucinations of one or more of the senses are very prominent and persistent, and in which the related portions of the cortex have presumably undergone profound though not necessarily gross structural change, their associated nerve-fibres throughout their entire length, even though interrupted by intervening ganglia, may likewise be more or less altered in their essential constitution. In such cases both cerebral centre and sense-organ might together take part in the presentment of hallucinations to the mind, whether they be unilateral or bilateral; at all events, the morbid creation arising and fully developed at the surface of the brain may be intensified, rendered more vivid, if pathological change similar to that in the highest centre exist in the neuron of the sense-organ.

Cases of mental disease with hallucinations of vision or hearing have occurred in my experience in which the mental disorder preceded the deafness or blindness of the patients; but even though there may have been causal connection between them, it is very doubtful if the gross nerve lesion commonly present in cases of that kind is akin to the delicate alteration of tissue usually associated with hallucinations. No doubt cases of very pronounced lesions of the cortical centres of hearing and sight, more especially but not exclusively in general paralysis, have been recorded by Mickle and others; but in many, probably in most instances of ordinary insanity,

where hallucinations were prominent at the time of the patient's death, little *apparent* change has been found in these centres, or, at all events, it was not more marked in them than in neighbouring parts of the cortex.

"But passing from this inquiry, we proceed to another question, which is more immediately connected with our subject, namely, how does it happen that the centre for one side is sometimes implicated while the other is free? It seems to me that much light is thrown on this as well as on other points in cerebro-mental disorders by a study of Sir James Paget's views on general pathology. He very clearly shows, what might indeed *a priori* have been anticipated, that when a part is congenitally weaker than it should be, or has been weakened by disease, though it may have been restored to an apparently healthy state, it is apt to be affected first and to suffer most when a general morbid action arises in the system. An interesting case illustrating this disposition occurred in my practice several years since. A child in one of the wards of the hospital suffering from a trifling erythema of the upper lip became feverish, and at the same time the red surface extended over the side of the face and deepened in colour, assuming an angry aspect. The next day and the day following, the affected side of the face was swollen and had become purplish in hue, and the general symptoms were aggravated; but on the fourth day a copious eruption of measles fully explained the constitutional disturbance. We had here, then, a surface slightly enfeebled by disease participating in a new and general morbid action, both earlier and more severely than the neighbouring sound integument.

"Now, to apply this principle, we may consider that in unilateral hallucinations the special centre involved is weaker on one side than the other, through some cause either congenital or acquired, and that such an agent as alcohol in the blood acts with special virulence on the affected part. Assuming that it is abnormally weak, may not this be the point in some cases from which the morbid action spreads over the mind centres? just as in Ferrier's experiments the repeated irritation of a small portion of the cortical substance sometimes resulted in general convulsions."

This view of the pathological condition in unilateral hallucinations, published in 1875, fairly expresses my present

opinion. Indeed, it is explanatory of the diverse symptoms produced by all toxic agents in different persons, most striking in disorders of the nervous system. Alcohol may be taken as the most familiar type of these agents. In the majority of people its toxic action does not differ greatly; it gives rise to a combination of mental, motor, and special sense disturbances pretty uniform in their features. In some, however, its morbid influence is much more marked on the centres related to the mind than on those specially associated with motion; hence the mental predominates over the motor disorder. Thus one meets with cases of delirium tremens in which there is great disorder of the mind, where the hand is steady and there is no apparent disposition to spasmodic movement. On the other hand, it is not unusual to observe pronounced tremor, most obvious in the hands; while, though there be mental agitation, there is no hallucination or other evidence of definite unsoundness of mind. Again, in exceptional cases that have come before me there was unusual implication of the cutaneous, sensory, and vaso-motor systems of nerves. Making due allowance for possible differences in the liquor taken, these diverse phenomena point to some peculiarity in the constitution of the nervous system of those in whom they are present.

Recent observations on the nerve-cell and its nucleus, and on the action of degenerative change in modifying the chemical constitution of these structures, show how unstable is the combination of the elements which enter into their composition, and how readily they may undergo profound alteration by the action of poisons, either autogenetic or of extrinsic origin.(5) It seems no great stretch of the imagination to suppose that in the building up of a dual organ like the brain, with elements whose chemical affinities are weak, there may occasionally be a slight difference between the corresponding parts of the hemispheres, so that a toxin in the blood may induce and maintain morbid action more readily on the one side rather than on the other.

In closing this paper it occurs to me that the inquiry may suggest itself to some minds if the further differentiation of psycho-sensory phenomena which unilateral hallucination constitutes, together with the related morbid cerebral

state, in all probability limited at first to one hemisphere, brings us any nearer, however slightly, to the understanding of the *nexus* between mind and matter. To this the reply must still be emphatically in the negative. However minute our analysis of these and other revived sensory impressions may be, and however accurate our localisation of them in definite cerebral areas, we do but show how absolutely mental manifestations are associated with the brain and nervous system, equally in the reception of impressions, in the exercise of the highest mental faculties, and in the execution of the mandates of the will.

Notwithstanding all the advances in our knowledge of the physiology and pathology of the entire nervous system during the generation which is now drawing to a close, the essential nature of mind remains an undiscovered problem; and, however great the progress of these sciences may be in the future, no solution of it seems even conceivable.

(1) Published in the *Glasgow Medical Journal* for that year. Another paper by the writer on the same subject was read at the London meeting of the International Medical Congress (1881), of which there is a short abstract in the *Transactions*, vol. iii, p. 632.—(2) Quotation from paper published in 1875.—(3) Quotation from paper of 1875.—(4) See Mott's Croonian Lectures on "Degeneration of the Neurons," *British Medical Journal*, June 30th, 1900.—(5) Mott's lecture already referred to.

The Present State of Mental Science. The First of a Series of Papers on the Localisation of Mental Functions in the Brain. By BERNARD HOLLANDER, M.D.Freiburg-i.-B., M.R.C.S.Eng., L.R.C.P.Lond.

The Brain as the Organ of the Mind.

THOUGH medical science has made great advances during the nineteenth century, our knowledge of the *mental* functions of the brain is comparatively still obscure. Even as regards the elementary principles of mental science there is still a diversity of opinion. Thus when we state the first fundamental principle, that *the brain is the organ of the mind*, on which we are all agreed, we in reality differ widely according to the interpretation we give to the word "mind."

There are those who hold mind to be equivalent with in-

tellect, and from this opinion serious errors have arisen, which have retarded the progress of mental science. To such persons it is a puzzle that large brains should be found sometimes with poor intellect, and small brains with great wisdom. Some find the explanation in differences of quality of the brain matter. This, however, is an insufficient explanation, for men of great intellectual ability and apparently the same quality, like Cuvier and Gambetta, occur one on the top of the list with the heaviest, the other at the bottom of the list with the lightest brain, Cuvier's brain weighing sixty-four ounces, and Gambetta's only thirty-nine ounces. To Spitzka the explanation proved a very simple one. He declared that Cuvier's brain-weight represented not intellect, but healed-up hydrocephalus. Celebrities with large heads will not feel flattered at this explanation. Science is rarely complimentary, but this is almost libellous.

Another explanation offered is that the differences in the weight of brains are entirely due to differences in the bulk of the body. This argument has been disposed of by Sir William Turner. He says, "The human brain, in all probability, attains its full size and weight at or about the age of thirty, whilst the body not only increases in weight after this period, but in one and the same individual may vary considerably in weight at different stages of adult life, without any corresponding fluctuations taking place in the weight of the brain."

According to Colin, quoted by Topinard, the mouse has in proportion to his body more brain than man, and thirteen times more than the horse, and eleven times more than the elephant.

The error is in taking absolute size of the brain as a measure of *intellectual* power, whereas it indicates, as might be expected *a priori*, absolute *mental* power, without determining whether that power lies in extent of intellect, in strength of moral feeling, or in force of passion or affection. The cortex of the brain records all the events of whatever nature which transpire within the sphere of existence of the individual, not merely the intellectual knowledge acquired, but the emotions passed through, and the passions indulged in. The extent of the intellect varies with the mass of the frontal lobes, and not with the entire brain. Hence a man with a very small brain may still be distinguished for his intellectual gifts if the

greater mass of his brain be situated in the anterior region; and a man may be intellectually an idiot, though with a brain of the same size, or larger, if the greater portion of his encephalon be situated in the posterior and lateral regions.

Thus Tiedmann, disregarding this distinction, inferred, and Sir William Hamilton concurred with him, that because the Negro brain is equal in weight to the European, therefore the Negro is also his equal in intellectual power. To prove this they would have had to show not only that the two brains are equal in absolute size, but that the anterior lobe or seat of intellect is equally developed in both.

The Part which the Emotions play in Human Nature.

The human mind embraces in its domain something more than mere intellect. We all *feel* as well as *think*, and our judgment is often influenced by our feelings; in too many instances, indeed, the latter obscure or warp, or even completely subjugate the former. The feelings exist for the preservation of the animal without consciousness, reflection, or active participation on the part of the individual being necessary. There are objects and events which from their nature must be detested or loved, desired or feared. These mental states when they reach a certain degree of intensity do then what the electric excitation does in a vivisected animal. They produce certain peculiar external acts, such as gestures, movements, attitudes, which likewise take place involuntarily, and without consciousness being necessary, and which always correspond agreeably to the designs of nature, to the preservation and the wants of the individual.

The intellectual life, the understanding, or reason, do not supply the motives or impulses to action, but the feelings and propensities which create the desire for their gratification; and as these latter vary in strength, so does the man's character vary. The intellect acts rather as an inhibition to the emotions; the greater the understanding, the greater the check on the emotions and passions. Hence a child, a savage, and persons of little culture are less able to restrain their emotions. Women, as a rule, are more emotional than men.

Dr. Clouston, following Dr. Laycock, has put the facts very clearly:

"In contemplating the phenomena of mind," he says, "we cannot fail to perceive the variety of its faculties, and that there is an obvious general division of them into intellectual and moral, the latter comprehending the propensities and impulses. The intellectual faculties are but a part of our mental powers, and contribute but little, in fact, towards forming what we call the *character* of an individual. We call to mind our acquaintances, and notice that their characters are very different; but this difference does not arise from the difference in their intellectual faculties, but in their moral powers. The character is determined by the moral faculties or propensities, by the affections, benevolence, love, selfishness, avarice, etc. The difference in the activity and energy of these creates the differences we see in the characters of men: those constitute the man himself, or the soul of man, while the intellectual faculties are but instruments to the wants and demands of the propensities. Without these propensities or moral faculties the intellectual powers would not be exerted at all, or but feebly. The stimulus or urgency of the impulses of our moral nature, of benevolence, love, avarice, etc., impel men to action; to gratify these the human race has for ever toiled."

Those who have had sufficient opportunities of observing the primary manifestations of mental disease, must be able to testify that in very many instances, long before any disorder or impairment of the intellect has been noticed or detected, some unaccountable change has been exhibited in the feelings or the conduct and social demeanour of its destined victims. Thus an intelligent, industrious, social, joyous business man, in consequence of falling off in business, becomes gloomy, taciturn, and utterly despondent; while another, whose temper was mild, equable, and cheerful, becomes irritable, changeable, morose. He becomes harsh, tyrannous, and cruel to his family, possibly even dangerously violent, and transforms his happy home into a den of perpetual strife and recrimination.

If the whole brain were subservient to the intellectual functions, what becomes of the insanity of conduct, of emotional insanity, of moral idiocy, and certain systematised insanities or monomanias, in which the perception, memory, and judgment remain unaffected? These affections can only be explained by disease of one part causing derangement of some of the intellectual

faculties, while disease in another part may not disturb the intellect, but derange the moral powers or propensities.

Dr. Fielding Blandford said that "there cannot be an emotional part of the mind or brain capable of becoming insane while the ideational portion remains sound and unaltered." Hence he concludes that in melancholia "the emotional alteration points, not to a disturbance of one portion of the brain, but to a pathological condition of the *whole* nervous system of the highest significance."

The error into which Dr. Blandford and others fall is to judge the emotional state by its effects. They assume that because an emotion is an all-pervading one, therefore its origin cannot be localised. We might as well say that Bright's disease is a disease of the whole body and not of the kidneys, because a great many parts of the organism may be affected by it. The intellect and the emotions are functions of two different parts of the brain. Any idea may exist associated with almost any emotional state; it may also exist without the co-existence of any emotional state. Any simple emotional state, as fear or anger, may exist without being associated with any idea, without the simultaneous existence of any thought. A man may not be afraid of anything, he is simply afraid; the man simply suffers from fear, not from fear of something. Moreover, there is no relation between the intensity of emotional and intellectual action going on at the same time, as we should think must necessarily be the case if these two were functions of one and the same part of the brain. In any given individual the intellect may be highly developed, and the passions and emotions very ill developed, or the reverse; so that we often see clever men with bad hearts, and men with excellent moral qualities who are very stupid. The fool may have a kind and affectionate heart, and the criminal a quick wit. Of course intellectual and moral defects may also exist together.

But better than all arguments is to produce facts, and in the next paper, on "The Pathology of Melancholia," will be found 150 clinical records of cases of melancholia with localised brain lesion.

Lesions of the Cortex without Mental Change.

That changes in the character are not considered as affections of the brain is evident from the frequent statement that

injuries of the brain may be sustained without being accompanied by any mental symptom. Thus in a representative journal on insanity the statement is made by the editors that "Abscess of the brain may exist, or portions of it may be carried away by gunshot or other injuries, and yet no perceptible difference be observed in the mentality of the individual." I feel sure that the reported integrity of the mental faculties in cases in which the brain is injured or diseased rests on no foundation except ignorance or inattention in the observer. If it were not so, what is the good of the brain?

There are cases on record in which the memory for names, for places, for objects, for numbers, for dates, for events, for faces, became lost, and a circumscribed lesion was found post mortem. How often does a clinical clerk inquire for such details? There are other cases on record, very numerous indeed, of lesions of the brain which produced very marked emotional changes, from former cheerfulness to melancholy, from gentle peacefulness to irascibility, from love of family to hatred of wife and child. Again I ask, where is the clinical clerk who would notice such changes, and if he did notice them, would expect and look for a lesion in the brain?

Of course, if one will not admit the emotions as separate and distinct from the intellectual faculties, but consider the former merely as modes of affection of the latter, it is not difficult to conceive that he might attend on a patient without noticing any perversion of propensities or sentiments. He might believe that the patient was able to manifest all his faculties unimpaired, seeing he meant by the word faculties only the intellectual powers. Does not the melancholiac reason clearly, and the patient with a systematised delusion judge correctly, if we only grant his premises? When a man whose character has been pacific becomes quarrelsome after having received a blow on the head; and another, whose previous inclination has been honest, after a similar injury, experiences an irresistible impulse to steal; or a man, formerly gay, after a brain lesion becomes depressed; or a fond mother, after a localised meningitis, subsequent to ear disease, becomes suspicious of her own children; can we say of these individuals, who certainly retained their consciousness, memory, judgment, etc., that these injuries had exerted no influence upon the manifestation of their mental faculties? In my opinion too

little opportunity is given in England for the study of the earliest stages of mental derangement. In the asylum, as a rule, the disease is too far advanced, and in the general hospital more attention is given to the physical symptoms than to the mental.

In this connection Dr. Ferrier says, "That mental symptoms or mental deficiencies have not been recorded in cases of bilateral cerebral lesions is a negative statement of very little value. Unless a man becomes so demented as to neglect the ordinary wants of nature, or so furious, maniacal, or irrational, as to require restraint, there are few engaged in the practice of medicine who think of inquiring narrowly into a patient's mental state; and, even if more attention were directed towards this subject, are we in possession of any means of accurately gauging the mental condition of an individual, so as to be certain that it has altogether escaped damage, notwithstanding the presence of a cerebral lesion? I see little to justify and much to contradict such an assumption. A man may not be incapacitated for the ordinary duties of life; but that his mental powers are altogether unscathed even by an unilateral lesion I venture to question." To those who only see in the cortex a field for motor and sensory centres, I again quote Dr. Ferrier: "If it is difficult to test the mental condition in a human being, how much more difficult must it be in the case of the lower animals? And yet, from the way in which some have treated this question, one would be led to believe that nothing was more simple."

There is always someone to quote the "American Crowbar Case," which has served for forty years as an example that violent injuries to the brain may occur without doing any mental damage. It is unfortunate that even our most modern text-books continue to promulgate such an error. In Halliburton-Kirkes' 'Handbook of Physiology,' 16th edition, 1900, it is stated that "A crowbar was sent through the frontal region of the foreman's head, removing the anterior part of his brain. He, however, recovered, and no noteworthy symptoms were observed in him during the rest of his life. He, indeed, returned to his work as overseer to the mine." Assuming, as I do, that the frontal lobes are the centres for the intellectual processes, a severe lesion of them would deprive a patient of the power of inhibiting the activity of his emotions and pro-

pensities. Such was the case with this patient, who showed a marked predominance of evil impulse and considerable moral depravity. Contrary to the statement in the 'Handbook,' the patient did not return to work. Here is the report of Dr. Harlow, under whose care the patient came immediately after the accident:—"His contractors, who regarded him as the most efficient and capable foreman in their employ previous to his injury, considered the change in his mind so marked that they would not give him his place again. The equilibrium or balance, so to speak, between his intellectual faculties and animal propensities seems to have been destroyed. He is fitful, irreverent, indulging at times in the grossest profanity (which was previously not his custom), manifesting but little deference for his fellows, impatient of restraint or advice when it conflicts with his desires, at times pertinaciously obstinate, yet capricious and vacillating. . . . A child in his intellectual capacity and manifestations, he has the animal passions of a strong man. Previous to his injury, though untrained in the schools, he possessed a well-balanced mind, and was looked upon by those who knew him as a shrewd, smart business man, very energetic and persistent in executing all his plans of operation. In this regard his mind was radically changed, so decidedly that his friends and acquaintances said he was 'no longer Gage.'"

The Significance of the Cortical Motor Area.

The misrepresentation of the crowbar case is only on a level with the misrepresentation of the motor centres. Were the interpretation which Dr. Ferrier has given to them generally accepted, *i. e.* that "these centres, besides being centres of voluntary motion, have a psychical significance, and form, as it were, the motor substrata of the mind," we should have the greatest assistance in discovering their corresponding mental functions. But this is not the interpretation given to them by the physician, who sees nothing but centres for motion and sensation in the brain; the fundamental faculties which compose reason or emotion, or passion, have no existence with him.

Even Flechsig, the discoverer of the association centres, fails to recognise the psychical significance of the motor area.

In his opinion "the height of the forehead is no measure of the intellectual disposition in a man, for the height depends partly on the development of the motor area, and the latter on the size of the body. Every line in this sentence is wrong. I have already quoted Sir William Turner's statement to the effect that the motor area does not depend on the size of the body. Secondly, the height of the forehead is not a measure of the extent of the frontal lobes. Neither would be the width, nor the depth, nor the vaulting. None of these taken singly. To measure the mass of the frontal lobe we must take all these measurements. The same mistake was made by the *Athenæum* in its article on "Retreating Foreheads and their Relation to the Intellect," some years ago. Thirdly, the motor area has no connection with the height of the forehead; the fissure of Rolando, around which the motor centres are grouped, is much farther behind.

Is the high forehead a mere idle freak of nature? Look at Tennyson's portrait; look at the supposed portrait of Shakespeare; look at the extraordinary height of Sir Walter Scott's head; not to mention a host of well-known living men. Is it not strange that some can see a depression over the arm-centre of a man, whose arm was amputated some years previous to his death, but that they cannot see the vast difference in the formation of human heads, regional differences which sometimes amount to as much as four inches. Were they in the habit of observing these, many errors would be avoided, as, for instance, that "the posterior lobes are the centres of intellect." Anthropologists have described long, short, broad, narrow, round, oval, cylindrical, keel-shaped, and sugar-loaf heads. What can be the significance of these? Is it that we differ so much in the development of our motor and sensory centres, or is it that no two of us are alike in the proportion of our intellectual faculties, feelings, and propensities? The savages of the interior of Borneo or of Western Australia have the same motor and sensory centres as the highly-cultured Englishman, yet the savages' sole business of life is to eat and drink.

Have we, as medico-psychologists, nothing to say on the subject? Does our clinical observation go for nothing? Is the laboratory man, the experimental physiologist, to teach us the mental functions of the brain from his experiments on

frogs, pigeons, rabbits, dogs, cats, and monkeys? At best, these experimental observations can only reveal the centres for movements of particular groups of muscles and of special sensations. Clinical observation, on the other hand, is conducted on *human beings*, and reveals loss of reflective faculties, loss of particular memories; it reveals accentuated feelings and propensities, for instance, of the emotion of fear, of irascibility, of the hoarding instinct, of attachment to home and family, of self-consciousness, etc. Experiment on animals cannot reveal any mental faculty. The speech-centre was not discovered in the laboratory. Half a hemisphere can be scooped out from an animal's brain, apparently without any effect on its mental nature, if we are to believe the experimenters; yet a trifling injury to the cortex of the brain may make a man insane.

No hypothesis of motor and sensory functions will make us understand, for example, the born criminal's character, his moral obtuseness, his cunning and resourcefulness, his excessive vanity, his lack of sympathy, and a desire for some object lying within reach. These are all inborn qualities, stimulated to activity by vicious surroundings. It is worthy of a note here that criminal anthropologists have found the most numerous deviations in the brains of criminals in the central convolutions, yet it cannot be said that their motor functions are generally impaired. If a man's brain be made up only of motor and sensory areas, copy-book maxims would be all that is required to make a man virtuous and persevering.

Motor centres will not explain why one man is more ambitious, or more proud, or more selfish, or more sympathetic than another. Or why some men place their happiness in the possession of riches; others in a philosophy which elevates them above humanities. Or why a son who has somewhat exclusively inherited the qualities of his father should be found so frequently to fail with his failures, sin with his sins, surmount with his virtues, and generally to get through life in much the same way.

The error some men commit is in regarding the central area of the brain as *motor* area, whereas they should speak of it as *psycho-motor* area. Ferrier had a clearer insight in this respect than those who preceded or those who followed him in his experiments. "It will be seen," he says, "that the movements recorded in the above experiments as resulting from excitation

of the individual centres are purposive or expressional in character, and such as we should, from psychological analysis attribute to ideation and volition if we saw them performed by others. The clutching or striking movement of a cat's paw is not a single muscular contraction, but is a complex and combined action of numerous muscles all directed to one end. Of course we have no other guide than our own consciousness to the interpretation of the actions of the lower animals, but as in ourselves or others we attribute such apparently purposive complex movements to ideation and volitional impulse, we may conclude that *the cortical centres are not merely motor, but voluntary motor, and concerned with the outward manifestation of intelligence.*

The Value of Speculative Philosophy.

If it be unwise to place too much reliance on the results obtained in the laboratory, and the deductions drawn from them by the experimenter, it is still more unwise to take as a guide to mental science the doctrines of speculative philosophers. Herbert Spencer or Auguste Comte can hardly come under this category, for both based their speculations on the accumulated knowledge of their time, that is, on science. Englishmen, as a rule, are too practical to devote themselves to philosophy based on self-introspection. Not so the Germans, who are ever ready to quote their "arm-chair philosophers," particularly Schopenhauer. This author held that injuries to the brain never produced a change in the character of men. "Injuries to the head with loss of brain-substance," Schopenhauer says, "are as a rule very detrimental to the intellect; they are followed by total or partial idiocy, loss of language, temporarily or permanently, and so on. *Whereas we never read that after an accident of this nature the character has undergone a change*, that the man became morally better or worse, that he lost particular propensities or passions, or had gained any. No! never."

Flechsig quotes the following remark from a work by Paulsen, Professor of Philosophy of Berlin University :—"Ideas do not exist in the brain. One could just as well say they are in the stomach or in the moon; the one would not be more absurd than the other."

There is no system of philosophy existing which would

explain the difference in the talents and character of different individuals; for example, why amongst a number of schoolboys who gain prizes, one excels in the study of history, another in poetry, a third in mathematics, a fourth in geography, and a fifth in drawing. Why is it that some young men are eager for political employment, some for military glory, while others devote themselves in preference to literature, philosophy or the natural sciences?

The faculties recognised by metaphysicians are, amongst others, attention, memory, understanding and will. If these were really fundamental forces there would be no reason why they should be manifested so differently, according as they are exercised on different objects. There would be no reason why the same individual should not learn geography, music, mechanics and arithmetic with equal facility, since their memory would be equally faithful for all these things. But where is the man who, after the greatest possible application, succeeds with equal ease in these different branches of knowledge? As regards attention, some men who are attentive to mathematics would fall asleep whilst others are talking of music, and so on. As regards *desire* or *will*, there are as many sorts of desires and inclinations as there are fundamental powers. Combative men wish to fight every man who attacks them. Benevolent men wish every one to be well taken care of. Nor is there a fundamental power of *judgment*. We see persons who can judge perfectly of colours, but not of music. Some can judge well of mathematics, but not of poetry. One may have strong attention, easy perception, a tenacious memory, and extremely correct judgment, an inventive and brilliant imagination *in one particular talent*, and be almost imbecile in another.

Memory, attention, judgment, are attributes of all the faculties of the mind. They could not be confined to any particular portion of brain. In this respect mind is a unit, and could not be parcelled out to particular areas. But it is different with the special memories; they can be localised. There are numerous cases recorded in which one or more memories were lost and the rest preserved. Thus the memory for words has been lost, and that for tunes, number, and places preserved. Or the memory for tunes was lost while the memory for number or words was preserved. *Examples of this kind of circumscribed*

lesions will be given in a subsequent paper. They will enable us to explain why among idiots there are to be found special instances of extraordinary memory, of great calculating power, of histrionic ability, of musical art, or of great manipulative skill.

Special Cortical Centres for the Primary Mental Functions.

Numerous arguments might be brought forward besides those already quoted to show that different areas of the cortex subserve different mental functions. The difference in structure alone would lead one to expect diversity of function. Besides, if we believe, as Bastian has pointed out, in anything like order or uniformity in the operations of the higher nervous centres, we are bound to adopt some doctrine of localisation. Moreover the existence of facts, such as that injuries of the head affect not unfrequently one or more of the mental powers, while others remain perfectly sound, would render the supposition far from unreasonable that different portions of the cerebral hemispheres have different mental functions allotted to them. "If the mental functions be not separate and independent," observes Dr. Cheyne, "is it not surprising that as in youth certain faculties come into active operation before others, so in advancing life the mind is not broken down simultaneously, does not yield by uniform and gradual decay, as might be expected were it uncompounded, and its several faculties only varied modes of action; but some one faculty is debilitated or destroyed before any failure is discoverable in the rest." These circumstances, and others of a similar kind, are "much more in accordance with the existence of a plurality of faculties, in some manner independent, than with the notion of the whole mind being engaged in every act of memory, compassion, judgment, etc."

Sir James Crichton-Browne writes, "I take it as an established fact that insanity is a disease of the brain which does not always involve the whole of that organ, but which in a large majority of cases is localised in certain regions of it. This hypothesis is necessary to the explanation of the innumerable varieties of insanity which occur, and is borne out by pathological observations as far as they go, and by analogy drawn from the affections of other organs. But if there is

localisation of function in the brain, and if insanity, which consists in morbid modifications of brain function, is dependent upon local lesions, we ought to be able to determine with more or less precision the position of the brain lesions, or of its functional derangements in certain cases of insanity. The inquiry must be an eminently difficult one, for reasons which need scarcely be enumerated; but still it must be undertaken if real progress is to be achieved in psychological medicine."

Yet the possibility of localising mental functions is not universally recognised. Thus Dr. Yellowlees wrote, "I find nothing to warrant the conclusion that localisation of mental manifestations can ever be possible. Has the most enthusiastic physiologist ever dreamed that he could localise in any spot of brain an all-pervading emotion, like hope or fear? Can the necroscopist distinguish the brain of a scoundrel from the brain of a Christian hero? Nay, he often cannot distinguish an insane brain from a sane one. Localisation of mental phenomena seems in their very nature to be impossible."

To this I would reply that, if hope or fear has not been localised, it may be because no one has attempted the task. If we assume in advance that it is impossible, we are not likely to undertake the investigation.

As regards the distinction between the brain of a scoundrel and that of a Christian hero, criminal anthropologists have described the brains of the former, and I presume the opposite type would fit the latter. Dr. Maudsley, too, has made an attempt to describe the two types of head. Thus he describes a *noble head*:—"From the forehead the passage backwards should be through a lofty vault, a genuine dome, with no disturbing depressions or vile irregularities to mar its beauty; there should be no marked projections on the human skull, formed after the noblest type, but rather a general evenness of contour." Of a *brutal head* he says, "The bad features of a badly formed head would include a narrowness and lowness of the forehead, a flatness of the upper part of the head, a bulging of the sides towards the base, and a great development of the lower and posterior part; with those grievous characters might be associated a wideness of the zygomatic arch, as in the carnivorous animal, and massive jaws. A man so formed might be expected with some confidence to be given over hopelessly to his brutal instincts."

The Cortical Area for Intellectual Operations.

While some men are still arguing against the possibility of localising the mental functions in the brain, others have already located at least the purely intellectual processes. It has been a universal belief at all times that the *frontal lobes*, or, more correctly speaking, the pre-frontal lobes, are concerned with the highest intellectual operations. Of late, however, some very distinguished men, masters in their department of science, have declared themselves in favour of the theory that the *posterior lobes* of the brain contain the intellectual centres, and since the *Handbook of Physiology* for 1900 supports this view, which is taught in several medical schools, we cannot pass it over without a searching analysis.

Professor Carpenter was the first to express this view. Later Dr. Bastian strongly insisted "that the posterior lobes of the brain had more to do with the intellect than the anterior." Dr. Hughlings Jackson not only concurs with Dr. Bastian "that the posterior lobes are the most important parts of the brain for intellectual purposes," but, "agreeing in this," he goes a step further, and supposes "that disease of the right posterior lobe produces greater mental defect than disease of the left does." The most active in promulgating this view has been Professor Schäfer; and his late Assistant Professor, the Editor of the *Handbook of Physiology*, is further spreading the doctrine, which has also been advocated by Dr. Clapham in the *Journal of Mental Science* for April, 1898.

The *Handbook of Physiology* says that experimental physiology lends no support to the view that the frontal brain is the seat of the intellectual faculties, "as the sensory centres (and sensations are the materials for intellect) are situated behind or within, and not in front of the Rolandic area."

According to this view all knowledge would be a knowledge of sensations. The different talents, for music, poetry, calculations, etc., ought to be all simple modifications of one or more of the five senses. Laura Bridgman, the blind-deaf-and-dumb woman, was remarkably intelligent, and Miss Helen Keller, a similarly afflicted pupil of the Perkins' Institution has even taken the first prize at a recent examination in competition with normal girls. I am not aware that the three remaining senses through which these ladies had to be taught—

the senses of taste, smell, and touch—are situated in the occipital lobe. The centre of sight is assumed to be connected with this area, but this is only one sense ; and if this theory be correct, a blind man ought to have highly developed temporal lobes, for in him the sense of hearing must be more acute, the auditory centre being connected with this part of the cortex. The observation made by Dr. Howe, three years after the introduction of Laura Bridgman into the Perkins' Institution for the Blind, does not harmonise with the theory of the intellectual centres being in the *occipital* lobes, for he wrote :—" A perceptible change has taken place in the size and shape of her head, there is a marked increase in the size of her *forehead*."

If all our ideas come from the senses, what becomes of the general and purely intellectual ideas, whose significance is wholly independent of the material world ? For example, " there is no effect without a cause." If all our ideas come from the senses, then the mind should be always proportionate to the greater or less delicacy of these same senses. Milton was blind at an early age, but what imagination can be stronger and more brilliant ? Beethoven was deaf while still a fairly young man ; his deafness accentuated his natural disposition to suspicion, but he did not cease to compose music. Moreover, have not animals more perfect senses than man ?

Why should the sensory region be just the *intellectual* region ? The *feelings and passions* can be aroused just the same, and much quicker, as the result of the objective perception gained through the medium of the eye. Not only does the sensation of sight arouse emotion, but it differs according to the emotion we are already in. How the earth shines to the accepted lover ! How black as deepest midnight to him when suddenly jilted !

We must distinguish in the act of vision between the mere perception of an object, and an intelligent knowledge of it as to its nature and qualities. *The centre of sensation is not necessarily the centre of perception.* Perception is complex, and consists not only of the visual impression, but the impression of solidity, form, size, and position, which vision alone would never give without the aid of the other senses. Perception, then, cannot take place in the occipital lobe, if it only contains the centre of sight. It must take place in a higher centre,

where all the sensory impressions are co-ordinated, that is, in a perceptive centre, which Wundt locates in the *frontal* lobes.

Those who hold that the sensory centres are the centres of intellect, and that thus knowledge results wholly from the experience of the individual, fall into an error as great as if they were to ascribe all bodily growth and structure to exercise, forgetting the innate tendency to assume the adult form.

"Were the infant born with a full-sized and completely constructed brain their position would be less untenable But as the case stands, the gradually increasing intelligence displayed throughout childhood and youth is more attributable to the completion of the cerebral organisation than to the individual experiences—a truth moved by the fact that in adult life there is sometimes displayed a high endowment of some faculty which, during education, was never brought into play. Doubtless experiences received by the individual furnish the concrete materials for all thought. Doubtless the organised and semi-organised arrangements existing among the cerebral nerves can give no knowledge until there has been a presentation of the external relations to which they correspond. And doubtless the child's daily observations and reasoning aid the formation of those involved nervous connections that are in process of spontaneous evolution, just as its daily gambols aid the development of its limbs. But saying this is quite a different thing from saying that its intelligence is wholly produced by its experiences. That is an utterly inadmissible doctrine—a doctrine which makes the presence of a brain meaningless; a doctrine which makes idiocy unaccountable." (Herbert Spencer.)

The Facts of Anthropology.

Hermann Wagner compared the mean proportions of the cortex in man and the orang. The occipital lobes proved larger in the orang than in man, while the frontal lobes were considerably smaller. He also weighed each lobe of the brains of Gauss, the mathematician, and of other eminent men, and compared these with the weights obtained from the brains of working-class men. Workmen had smaller frontal lobes, but larger occipital lobes than the celebrated mathematician.

Still more remarkable are the figures reached by comparison of the anterior and posterior lobes of different races. In the Carib the anterior lobes are very small, in perfect harmony with the poverty of the intellect; on the other hand, in the Hindoo, a high race, as we know, the anterior lobes are well developed.

Gratiolet distinguished the principal divisions of our species by that bone of the skull which is relatively the largest Thus :—1, frontal or Caucasian; 2, parietal or Mongolian; 3 occipital or Ethiopic. He has shown that in the Caucasian the anterior fontanelle is the last to ossify, permitting of the greatest possible development to the frontal lobes; and that in the Ethiopic race the converse condition exists, the posterior fontanelle being the last to ossify. According to this arrangement, in the superior races the frontal lobes of the hemispheres continue to develop for a long time after the occlusion of the posterior sutures has put an end to the growth of the rest of the brain; in the inferior races, on the contrary, the ossification of the sutures proceeds from before backwards, and thus the anterior parts of the brain are first arrested in their growth.

The important researches made in reference to ancient skulls by the *Abbé Frère*, whose rich collection is in the Anthropological Museum at Paris, led him to the conclusion that the skulls of Europeans have increased in size since historic times; and that the progress of civilisation seems to have resulted in *raising the anterior, and flattening the occipital part of the skull.*

With the view of verifying the accuracy of the theory that the development of the higher faculties of the intellect is in relation with the development of the anterior region of the skull, and that the frontal lobes form the substrata of those psychical processes which lie at the foundation of the higher intellectual operations, Broca examined the heads of thirty-two house surgeons who nad successively resided at Bicètre during the years 1861, 1862, and compared their dimensions with those of the heads of twenty-four porters attached to the various wards of the same hospital. This comparison resulted in the confirmation of the generally received opinion, that the anterior lobes are the seat of the highest order of intellectual faculties; and Broca considered that he had demonstrated that the cultivation of the mind and intellectual work augment the

size of the brain, and that this increase chiefly affects the *anterior* lobes.

Dr. Parchappe has also made measurements, and found that the *frontal* lobe in men of learning has much larger proportions than in common working men.

Messrs. Lacassagne and Cliquet have examined, by the aid of the *conformateur*, the heads of 190 doctors of medicine, 133 rudimentarily educated persons, 90 illiterate persons, and 91 prisoners (soldiers), with the following results. There is a considerable difference in size of head in favour of the doctors, and this is especially marked in the *frontal* measurements. In the educated the frontal region is more developed to the left, and is altogether more developed in proportion than the occipital region, which is the larger among the illiterate.

Schroeder van der Kolk wrote :—"That to all parts of the cerebral convolutions are not assigned exactly similar functions was long ago suspected. Further, that a finely arched forehead as a rule indicates high intellectual endowment, was already not unknown to the Greeks, as we may conclude from their delineations of a Jupiter, Apollo, and so forth. The strongly prominent forehead as the prerogative of man came yet more definitely into view when Camper proposed the facial angle, named after him, and pointed out its difference in Azteks, Negroes, and Europeans, likewise in children and in grown-up persons."

Maudsley says : "That the high, broad, and prominent forehead marked intellectual power, was a belief which the ancient Greeks entertained, and which has long been popularly held ; and the notion that lowness and narrowness of the forehead indicates intellectual inferiority is in harmony with the observations that in the Negro, and more markedly in the Bosjesman, the anterior part of the hemispheres is narrower than in Europeans ; and that the narrowing of the frontal lobes to a point is one character by which the brain of the monkey differs from that of man."

The Facts of Experimental Physiology.

Bianchi found, after destruction of the frontal lobes in dogs and monkeys, that the curiosity to observe, which is so marked in monkeys, is lost ; that they are not able to receive new impressions, or to remember or reflect on the old ; and, since

they can no longer criticise, they are timid and easily excited. The frontal lobes appear to him not only centres of perception and reflection, but also co-ordination centres of the rest of the brain. He says, "The animals remain friendly, they still caress and show affection. They can get into wild excitement. They show fear more readily. They are cautious, but cannot avoid accidents; these strike terror in them. They eat with reckless avidity. They are duller and sleepy. Physiognomy stupid; expression cruel. They show no gratefulness. They cannot adapt themselves to new surroundings, nor learn anything new, nor recover what they have forgotten." His hypothesis is "that the frontal lobes are the seat of co-ordination and fusion of the incoming and outgoing products of the several sensory and motor areas of the cortex. The frontal lobes sum up into series the products of the sensory-motor regions, as well as the motor states which accompany all the perceptions, the fusion of which constitutes what has been called the *pyschical tone* of the individual. Removal of the frontal lobes does not so much interfere with the perceptions taken singly, as it does disaggregate the personality, and incapacitate for synthetising groups of representations. The actual impressions which serve to revive these groups thus succeed one another disconnectedly under the influence of fortuitous external stimuli, and disappear without giving rise to associational processes in varied and recurrent succession. With the organ for the physiological fusion, which forms the basis of association, disappear also the physical conditions underlying reminiscence, judgment, and discrimination, as is well shown in mutilated animals.

Colella considers, as a result of his experiments, the pre-frontal lobes the seat of the highest psychical functions.

Richet, de Bayer, Duret, and Grassel, regard the frontal lobes as the seat of the intellectual faculties.

Dr. MacAlister says, "Increased growth of the frontal lobes is the physical accompaniment of intellectual activity."

Both Hitzig and Goltz confirm the occurrence of a mental deterioration from lesion of the pre-frontal regions.

Ferrier observed that "after removal or destruction by the cautery of the antero-frontal lobes, the animals retain their appetites and instincts, and are capable of exhibiting emotional feeling. They have, lost, however, the faculty of attentive and

intelligent observation." He locates the centres of reflection in the frontal lobes.

These are the observations made by independent and unprejudiced observers, some of whom, like Ferrier, Hitzig, Richet, have also had vast clinical experience, and are in the habit of looking for mental as well as physical symptoms. Yet the *Handbook of Physiology* for 1900 says that experimental physiology lends no support to the view that the frontal brain is the seat of the intellectual faculties.

Pathological Facts.

It is universally known that in senile dementia, and dementia of any kind including general paralysis of the insane, the greatest atrophy occurs in the frontal lobes; the occipital convolutions are hardly ever involved. If the higher intellectual processes were carried on in the occipital lobes, these would necessarily show atrophy. This fact alone should condemn the theory of the occipital lobes being concerned with the functions of pure intellect.

The convolutions of the frontal lobes are very simple in imbeciles, often only half an inch in width. Sometimes they may appear larger than normal, but that is owing to the deficient development of the rest of the brain, and then, still, the deficiency of intellect could be accounted for by the simpleness of the convolutions and the want of development of the nerve cells.

Carl Vogt wrote, "The conformation of microcephalous brains depends on an arrest of development which does not involve the entire brain. The arrest is chiefly in the anterior or frontal lobes."

Ferrier says, "The frequent association of idiocy with defect of the frontal lobes is a generally recognised fact."

Allen Starr says, "In respect of judgment and reason the power of man surpasses that of the lower animals. The brain of man differs from that of the lower animals and of idiots chiefly in the greater development of the frontal lobes. It seems probable, therefore, that the processes involved in judgment and reason have as their physiological basis the frontal lobes.

"If so, the total destruction of these lobes would reduce man

to the grade of an idiot. Their partial destruction would be manifested by error of judgment and reason of a striking character. One of the first manifestations would be a lack of that self-control which is the constant accompaniment of mental action, and which would be shown by an inability to fix the attention, to follow a continuous train of thought, or to conduct intellectual processes. It is this very symptom which was present in one half of the cases here cited. It occurred in all forms of lesions—from injury by foreign bodies, from destruction by abscess, from compression and softening due to the presence of tumours,—and therefore cannot be ascribed to any one form of disease. It did not occur in lesions of other parts of the brain here cited."

Anton gives the following description of the symptoms of lesions of the frontal lobes :—" Injury to one frontal lobe has, as a consequence, that the intellectual functions can be carried on only with great exertion. The memory and judgment are weakened, and continued attention is rendered difficult. If the disease extends to the other frontal lobe as well, then we have sudden and hopeless dementia."

Charles K. Mills' view :—" Lesions of the *pre-frontal* lobe, although this is one of the so-called latent districts of the brain, have in a large percentage of the carefully studied cases shown distinctive manifestations. The symptoms are largely psychical, and unfortunately the physician is not usually well trained to study such phenomena. Mental disturbances of a peculiar character occur, such as mental slowness and uncertainty, want of attention and control, and impairment of judgment and reason ; closely studied, the inhibitory influence of the brain both upon psychical and physical action, is found to be diminished."

The Frontal Lobes as Centres of Inhibition.

The frontal lobe, as the seat of the reasoning faculty, is an inhibitory apparatus against the lower and more instinctive natural impulses. The higher its development, the more it overbalances the rest of the brain, and the greater its tendency to subordinate the instincts of self-preservation and the egoistic feelings to the intellect, to act as a check on the animal propensities. If this inhibition becomes weakened, then we see

the disordered predominance of the actual instincts and impulses, and when it is totally lost the individual is in the position of a criminal who opposes the ethical order of society.

Goltz found that when the frontal lobes are destroyed the inhibitory power over the propensities is lost, and such an animal changes its character for worse, as has been observed in the classical Crowbar case. The reflex excitability is greatly increased.

Flechsig says, "The result of the action of physical impulses upon the cortex is a struggle between sensory impulses and reason. As soon as the power of the mental centres is paralysed the impulses are deprived of the mental control, and passion reigns unbridled."

L. F. Barker, Professor of Anatomy and Pathology in Johns Hopkins' University, says, "When the intellectual centres are paralysed there often results most marked disorganisation of the mental processes, and most serious alterations in the character of the individual. The struggle between the lower instincts and the ethical feelings may cease, and instead of a rational man we see a creature given over entirely to the satisfaction of his lower desires."

It is the highly developed intellect of man which changes the innate animal instincts into glorious faculties. Thus the animal desire of propagating the species is transformed in man to moral love. The love of female animals for their offspring, provided by nature to preserve their young, becomes in women the amiable virtue which inspires their tenderness for their children. The attachment of animals changes in man to friendship; their sensibility to caresses changes into ambition and a sentiment of honour. The instinctive building of nests by birds, and of huts by beavers, is at the root of man's nobler dwellings, of his temples and palaces.

It is the frontal lobe, with its connecting fibres to all the remainder of the brain, to which this difference is due. The larger the anterior lobes in proportion to the rest of the brain, the more refined will be the expression of the emotions and even of the passions of man, and the greater control he can exert over them. Let the frontal lobes be arrested in development, or affected by disease, and man descends to the animal stage.

CONCLUSIONS.

1. That the size of the entire brain is not a measure of intellectual power alone, but a measure of the strength of intellect, sentiments, and propensities taken together.

2. That the sensory areas are not the areas of intellectual perception and reflection, and that the occipital lobes are not concerned with the higher intellectual processes.

3. That the motor and sensory centres alone would be insufficient to explain the diversity of human character and the varieties of mental derangement; that they are the substrata of mental centres, and therefore psycho-motor and psycho-sensory centres.

4. That the frontal lobes alone are an index to a person's intellect, and their mass has to be judged by all the measurements which are used for the estimation of the size of a body; that the head may be small in a person of wisdom, provided the frontal lobes are relatively the most prominent.

5. That memory is not a single faculty, but that there are centres in the brain for the individual memories, number, time, place, tune, etc., besides the memory of words, which is already located.

6. That there must be centres for the fundamental emotions and propensities in the cortex separate from the centres for purely intellectual processes.

7. That the intellectual faculties control and elevate the sentiments and propensities, and that thus the anterior lobes are the centres of inhibition of the rest of the brain.

[This paper will be followed by one on the Cerebral Localisation of Melancholia.—ED.]

DISCUSSION

At the Autumn Meeting of the South-Western Division, Ticehurst, October 10th, 1900.

The PRESIDENT agreed that intellect was not dependent upon the mere size of the brain. A great deal depended upon the depth of the grey matter. He was glad that Dr. Hollander had drawn their attention to the emotional and affectional side of the brain. In agreeing that the frontal area of the brain was the organ of intellect, we must remember that all sensations were required for the full production of the intellect. The anterior lobes were not solely the organs of intelligence. In idiots hey might find the frontal brain and the parietal brain well developed, but not the occipital portion. The poorly developed part probably occasioned the want of intelligence. Dr. Shuttleworth had examined five hundred

heads of children in an idiot asylum and the like number of children in a normal school, and there was no apparent difference in size. He maintained that the senses needed to be educated as well as the other portions of the brain.

Dr. ROBERT JONES said that while the paper contained very considerable thought and reflection, and was the outcome of considerable work, he did not quite agree with the gist of the paper as to the formation of intellectual "faculties."

Dr. MICKLE said he could not agree that the best authorities on the subject made intellect synonymous with mind, thus excluding from the latter the emotions or feelings. Nor could he agree with regard to the view that the frontal lobes are the seat of the mind; for while they are concerned in most important mental activities, there are also other portions of the brain used for high grade mental processes. And then another point with which he could not agree was that a certain small centre in the brain cortex is devoted to hope and another to fear. Nothing that he had met with in science supported that. We have been working for many years at the subject of brain function, and what we desire is careful deliberate work, extending our knowledge in this direction. Indeed, in some of the localisations in special areas or centres of brain cortex there is a much finer state of subdivision than, *e.g.*, even in the case of speech, the substrata of certain classes of mental images having a comparatively narrow and restricted localisation, and further advance on these lines is to be expected.

Dr. HOLLANDER, in reply, said that he intends to show that certain forms of mental disease are localised. Thus melancholia, in its early stages, is limited to a definite circumscribed region (see subsequent paper), but simple melancholia is only a morbid state of the emotion of fear; hence we may assume the latter to have some connection with the same region. That "intellect" is made synonymous with "mind," is shown by the fact that the weight, or size, of the *entire* brain is invariably taken as a measure of "intellect," and no allowance made that the emotions and propensities form also part of the mind. Measuring the different regions of the head, the author found marked differences—perceptible to the eye—between those of idiots and of normal children. Circumferential measurement varies so little that, taken *alone*, it is of hardly any value. He was bound to use the term "faculties," there being no other word for the "elements of mind" in the English language. When the localisation of *mental* functions is admitted, a psychologist may arise who will supply us with a correct analysis of mind, and the suitable terms.

Post-Influenzal Insanity in the Cumberland and Westmoreland Asylum, with statistics of sixty-eight cases.

By GEORGE A. RORIE, M.B., CH.B.

IT is a recognised fact that nervous and mental disorders are more frequent after influenza than after any of the other zymotic diseases. Dr. Risien Russell(1) has specially referred to the action of the influenza bacillus and its toxin on the nervous system. Dr. Clouston(2) has expressed the opinion that the effects of influenza on the mental condition of Europe far exceeded in destructive powers all the continued fevers put together. An increase in the admissions of melancholic patients into several of the asylums of this country during the prevalence of influenza has been reported at Edinburgh, Hanwell, Birmingham, Nottingham, and other institutions. Dr. Macpherson(3) and Dr. Farquharson(4) have discussed the

pathological aspects of depressed emotions, and the physical reduction caused by influenza, as favourable to the onset of melancholia.

On examining the statistics of admissions into the Cumberland and Westmoreland Asylum, I find a similar increase in admissions of melancholic and suicidal patients during the general epidemics of influenza. The increase in the admission of melancholic patients is specially marked in the years 1891, 1893, and 1896; while there is a marked rise in the admission of suicidal cases during the years 1890, 1893, and 1895.

On examining the case-books for the last ten years—1890 to 1899 inclusive—I find that there are sixty-eight cases in which influenza is put down as the cause—either predisposing or exciting,—or in which there is a history of influenza prior to the onset of the mental symptoms. Besides these there were numerous cases in which one or other of the causes is ascribed to weak health, running down of the system, bronchitis, etc., some of which were probably due to influenza; but none of these are included in the following series.

Of the sixty-eight cases there were thirty-four males and thirty-four females. Of the males the majority were admitted during the years 1892, 1893, 1894, 1895, and 1896, the percentage on admissions being 5·7, 5·9, 5·4, 6·5, and 5·1 respectively. Of the females the majority were admitted during the years 1892, 1894, and 1897, the percentage on admissions being 12·3, 5·0, and 6·6 respectively. Thus we find that the greater number of male cases were admitted during the years 1893 and 1895, and the greater number of female cases in 1892. In 1892 the highest percentage of both sexes was admitted, and 1895 came next. Taking the thirty-four male cases first, I find that the average age on admission was 43·8—the youngest male was a youth of nineteen, and the oldest a man of seventy-one; the largest number—ten out of thirty-four—were between the ages of twenty-one and thirty inclusive, and six were between the ages of sixty-one and seventy inclusive. Among the females the average age was 49·5, which is rather older than the males; the ages varied from an old woman of eighty-nine to girls of nineteen. The greatest number were between the ages of forty-one and fifty inclusive, there being eight out of the thirty-four; six were in the following decade, and seven in the next.

As to the bodily health and condition on admission, it was returned as very weak in six males and seven females, weak in fifteen males and eighteen females, and average in thirteen males and nine females, showing that only twenty-two out of sixty-eight cases were in average health on admission.

The question as to the exact time of the starting of the mental symptoms after the attack of influenza is difficult to answer. In many cases the patient's friends state that the patient has never been well since the attack of influenza, or that he has never been the same after it, and yet a definite period is often stated as the duration of the mental disorder before admission. The period between the attack of influenza and the date of admission varies very much; in some cases the mental symptoms seem to follow directly on the attack of influenza, or at an interval of a few days; in other cases, weeks, months, and in a few cases over a year seem to intervene.

These results concur with those mentioned in a review of a work on *Influenza and Mental Disorder* by Dr. Leledy,(5) where it is definitely stated that insanity may follow at any time after influenza. Dr. Savage(6) also states that melancholia may come on almost at once, but more frequently follows the influenza after some interval. I find that among the cases mentioned here, there was most commonly an interval of between one and three months between the attack of influenza and the commencement of the mental symptoms.

As regards the predisposition to insanity caused by heredity or by former attacks, I find that in no less than twenty-eight out of the thirty-four female cases it was the initial attack, in three cases it was the third, in two the second, and in one "not the first." Among the men the proportion was even higher: in twenty-nine cases it was the first attack, in two it was the second, in one the fourth, and in two "not the first."

Hereditary predisposition was ascertained in only ten cases on the male side, and in twelve only on the female side. More careful examination, however, reveals the fact that, besides these ten males in whom hereditary predisposition was acknowledged, and the four cases in which there was a history of previous attacks (one case in which there was a history of previous attacks also having hereditary history), five were alcoholic, and three were always weak-minded, dull or lazy,

leaving only twelve cases in which there was a more or less satisfactory previous history, and of these three were over sixty-three years of age, and one developed general paralysis.

In the same way, on investigating the female cases I find that besides the twelve cases with acknowledged hereditary predisposition (including three who had previous attacks of insanity), and the remaining three who had previous attacks but no hereditary predisposition, one was alcoholic, five were stated to have been always nervous, irritable or dull, leaving fourteen who were without suggestion of predisposition; but these included four females over sixty-five years of age. These figures suggest that the majority of the cases had a predisposition towards insanity, either through heredity, previous attacks, excesses, or senility. This result coincides, to a greater or less extent, with the conclusion come to by most authorities and mentioned in the paper already quoted, namely (5) "that probably in all cases there is some other predisposing cause," *i.e.*, than influenza.

Dr. Savage (6) also states that grave neuroses are most common in persons who have damaged nervous systems, whether by alcohol, syphilis, senile decay, previous attacks, or hereditary predisposition.

The forms of mental disorder met with in the cases collected here are classified as acute mania, mania and melancholia, and a notable feature, as shall be mentioned later, is the large proportion of suicidal cases in both mania and melancholia.

As one would expect, the great majority of cases were suffering from melancholia. Of the thirty-four males there were no less than twenty-six cases of melancholia; three were suffering from acute mania, four from mania, and one from general paralysis of the insane. Seventeen of the male cases were suicidal, sixteen of whom were suffering from melancholia, and one from mania.

Of the thirty-four females there were twenty cases of melancholia, eight of mania, four of acute mania, and one each of senile mania and senile dementia. Nineteen of these were suicidal, including two cases in which it was doubtful; fourteen of whom suffered from melancholia, and five from mania.

Adding these figures together, we have the total of sixty-eight cases; forty-six were suffering from melancholia, seven

from acute mania, twelve from mania, and one each from general paralysis, senile mania, and dementia.

The type of melancholia varies a good deal: in some cases it was mainly simple melancholia, and the patient often complained of never having been well since the attack of influenza, or that he never could "shake it off"; he became dull, depressed, and nervous, and it was common for the patient to state that his food did him no good; besides this there was often a certain amount of confusion and the memory was often impaired. This state of confusion of ideas and impairment of memory was often marked, and there was frequently a tendency towards stupor, especially among the female cases, varying from a confused stuporose condition—with listlessness, apathy, and refusal to converse—to a condition approaching stupor with catalepsy. In some cases the patients were more resistive, and refusal of food was not uncommon. Delusions were common, and were usually delusions of persecution, often of poison being put in their food, and the idea of their having been very wicked was not infrequent.

Delusions occurred in ten of the male cases of melancholia, and in eleven of the female cases.

Hallucinations were noted in five females and three males; these were usually of hearing, but hallucinations of sight and feeling were met with.

In a few cases the melancholia was more acute, the patients being restless and miserable, talking and weeping, but in the majority of cases it was more of the dull and confused type.

As regards the type of mania, there is nothing particular to note, though general confusion of ideas was often present, with outbursts of restlessness, excitement, and at times violence; delusions and hallucinations were also met with.

The cases of acute mania among the men were all at a considerable period after the attack of influenza, and obviously did not follow directly on it; among the females, on the other hand, two of the cases of acute mania followed soon, if not directly, after the attack. The patients on admission were very restless, noisy, and excited, shouting and singing and difficult to manage; one is described as being of a delirious nature. Fleeting delusions were present in most of them, and refusal of food occurred in one case; two of the females and one male were suicidal. In one of the female cases of acute

mania there was a history of depression and melancholy prior to admission, though on admission she was acutely maniacal.

Here we may refer to a case of acute mania, following directly on influenza, occurring in general practice, and described in the *British Medical Journal*.(7) In this case the patient became violently excited and delirious, tried to throw himself out of the window, and had hallucinations of hearing; these acute symptoms subsided in a few days.

Among the male cases it is interesting to find a case of general paralysis following on the attack of influenza, suggesting that the influenza had roused the general paralysis into activity, or more probably rendered the system more susceptible to the disease.

In this case, a man aged forty-two, the previous history was good, there was no hereditary predisposition, and he was described as having been a "quiet, smart young man." He is said never to have got over the attack of influenza, the date of which unfortunately has not been ascertained, nor was the duration of the attack, prior to admission, found out. No history of syphilis was ascertained.

On admission he showed symptoms of fairly advanced general paralysis, which advanced rapidly until he died, after a congestive attack, about seven months after admission. A *post-mortem* examination was made.

This was evidently a case of rapid general paralysis, such as Dr. Savage describes (6) as occurring in men of about forty, and started into activity by the attack of influenza. In his paper he also states that epileptic fits have been started by influenza, and it is interesting to note that among the above cases one female had an epileptic fit during a residence of eleven months. There was no hereditary history in her case, and she ultimately recovered.

The prognosis is on the whole favourable, especially in the cases of melancholia. Of the twenty-six cases of melancholia among the males, sixteen recovered; three are much improved, and in all probability will recover; and three were discharged relieved; one became demented, and three died, the cause of death being phthisis, Bright's disease, and exhaustion. The cases of acute mania (males) all recovered after a period of residence of about five months. The cases classed as mania were not so satisfactory: one recovered, one was relieved, and two

died, the cause of death being senile exhaustion and heart disease. On the female side the percentage of recoveries from melancholia was even larger than on the male side. Of the twenty cases sixteen recovered, one is not improved, and three died, the cause of death being senile exhaustion and phthisis (2); three of the cases of acute mania recovered, the remaining one still being under treatment. Mania, as on the male side, seems the least favourable form of post-influenzal insanity, and of the eight cases suffering from this form, two recovered, four are inmates at present and not improved, and two died, the cause of death being phthisis in both cases.

The average period of residence in this asylum of those who recovered was, roughly, about five months, but it varied from one month to over one year.

As to the treatment of these cases there is nothing, beyond the treatment of special symptoms, differing from that employed in ordinary cases.

Dr. R. Macphail, of Derby([8]), has made an analysis of twenty cases of post-influenzal insanity, received into the asylum there for the five years ending in 1895; the results he arrived at resemble in many respects those given in this series. The average age in his series was rather younger than that met with here, being 37·6 for men and 39·2 for women; in all but two of his cases the attack was the initial one. As to the type of insanity, he finds melancholia predominating, though only 50 per cent. of his cases were melancholiacs; one man was a general paralytic. He also remarks on the higher percentage of recoveries to admissions in these cases.

The general conclusions I would draw from the above series are that post-influenzal insanity may follow at any time after the attack, and occurs usually in persons with a predisposition towards insanity, either by hereditary predisposition, alcoholic or other excess, age, or previous attacks, though the latter is not common. There is no time of life when there is any markedly greater tendency towards its occurrence. The form of insanity is in the majority of cases melancholia, often suicidal, and all varieties of melancholia are met with; acute mania and mania occur, but are less frequent, and general paralysis may follow influenza; a common feature in both the melancholia and mania is the state of mental confusion and stupidity suggestive of auto-intoxication.

The prognosis is good in the cases of melancholia and acute mania, but rather unfavourable in the cases of mania, especially if delusional.

None of the cases above mentioned agree with the description of the acute delirious mania occurring with influenza, except perhaps the case quoted from the *British Medical Journal.*

As to the mode of action of influenza in causing the mental symptoms, in all probability they result from the action of the toxin on the nervous system in a patient already much reduced by the other effects of influenza. In patients already insane the effect of an attack of influenza led to little change in the majority of cases here, but two cases of delusional insanity became markedly worse, and expressed their delusions (of persecution) with much greater freedom, and one case of melancholia became distinctly more depressed.

References.

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4. Dr. Farquharson.—"On Melancholia," *Journal of Mental Science*, 1894
5. Dr. Leledy.—*Journal of Mental Science*, vol. xxxviii.
6. Dr. Savage.—*Journal of Mental Science*, vol. xxxviii.
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8. Dr. Macphail.—*Journal of Mental Science*, 1897.

Discussion

At the Autumn Meeting of the Scottish Division, Edinburgh, 1900.

Dr. Ireland wished to see the Government reports on the spread of influenza taken not only from this country, but from all the colonies and other lands. It appeared that it was in the years 1889 and 1890 that influenza spread all over the world. Dr. Rorie had brought out that a majority of cases had a predisposition to insanity. He (Dr. Ireland) had read a book on the subject written by a learned Dane, in which he showed that influenza had appeared during European history a great many times, and that it always had been followed by an increase of melancholia, a tendency to suicide, and other marks of nervous depression. He would like to have information as to how influenza got into asylums. Was it brought in by the staff? In his experience isolation had apparently prevented an epidemic by cutting off communications with the infected district round Preston Lodge.

Dr. Clouston said that he had been very much struck with the fact that in consultation practice it seemed as if influenza as a cause was even more prominent than in asylum experience. Vast numbers of people had never been the same since they had had an attack of influenza; they complained of all sorts of weaknesses, which neurologists must refer to a lowering of the condition of the nerve centres. The asylum cases were merely, as it were, the extreme results of influenza; yet attacks of actual insanity were frequent in the community. They

must not forget, however, that about 70 per cent. of the population were said to have had influenza; and that left the imagination as an enormous factor in ascribing a subsequent attack of insanity to it. It was easy to say that it was the influenza which produced the insanity. Most of the cases of post-influenzal insanity could not rightly be described as the result of toxæmia. The insanity only followed a year, or two or three years, after the influenzal attack. There was no reason to suppose that toxæmia could last anything like that time; and the insanity must be put down to an attack on the nervous system which was not recovered from, it causing a distinct want of recuperative power; and the invasion of a man's recuperative power was the worst thing that could happen.

Dr. RORIE (Dundee) said that his experience had confirmed him in the same view as Dr. Clouston had expressed, that from the time of the attack of influenza the patients never appeared to have recovered, and gradually passed into a state of suicidal melancholia. He had found an entry in the case-books of the Dundee Asylum in 1846, the first time influenza visited this country, after having been prevalent in Europe. At that time Dundee was severely attacked, and it affected the patients in the asylum to a very considerable extent. There was a decided increase in the suicidal melancholic cases; and, as most of them had experienced in the recent epidemics, the servants of the institution were first attacked, and suffered more than the patients. That appeared to be rather against the theory of a loss of power in the nerve-cells, which was no doubt the cause which led to an emotional condition of melancholia. With regard to the question whether influenza might pass on to a general paralysis, he would be more inclined to think that it was simply a matter of coincidence.

Dr. G. R. WILSON said that he agreed as to the prevalence of insanity arising from influenza. He had seen a patient who had suffered eleven attacks within five years; and in every case of post-influenzal insanity under his notice not one occurred in which the cardiac function was sound. It would be interesting to obtain more particular facts as to the bodily conditions, and if in the majority of cases there was primarily a nervous depression. He would rather attribute the insanity to a blood condition, or anæmia, or to a cardiac disorder. He desired to know if there was anything in the physical records to prove or disprove the pulmonary conditions previous to the insanity.

Sir JOHN SIBBALD said that he had been very much struck with the large proportion of the staff attacked as compared with that of the patients during the first part of the great epidemic of influenza, finding, for instance, that one third of the staff had been attacked and only one ninth of the patients. It was not always so. The reverse had occurred in some institutions. It would be extremely interesting if they had the full statistics, and if they had a return from the superintendents of asylums relative to these points.

Dr. URQUHART said that they had now accumulated a great amount of evidence as to the incidence of influenza, and he suggested that their Collective Investigation Committee should be asked to report on the subject. His experience was that influenza could not be stamped out by isolation. In all the cases he had seen in which influenza could be properly ascribed as a cause, there was not one without a history of hereditary insanity. In the first recent epidemic at Perth the staff suffered severely; in the second it was almost entirely among the patients; and in the third both classes suffered indiscriminately. In the first epidemic those who worked in the open air were mostly affected, and in the latter the patients were more fatally attacked than the staff.

Dr. G. M. ROBERTSON said that Dr. Elkins and he, in a joint paper (written in 1896), came to the conclusion that there must have been something in the atmosphere to cause so many attendants and out-door patients to be so generally affected by influenza; but he believed now that the opinion amongst those who studied influenza was that it was a highly infectious disorder with a period of incubation of only some twenty-four hours. Therefore it was exceedingly difficult to tell exactly when a person was infected. Attendants were particularly liable to it, because they mixed with the general infected population. He himself had suffered more than a dozen attacks of influenza, and during the last two—occurring within the previous eighteen months—he noticed exactly that he was seized when exceedingly chilled. He was certain that influenza developed most when one was chilled and in low health; and he believed that their patients were well protected

against cold, and not so subject to variations, and therefore not so liable to be attacked. In the first epidemic attendants were very numerously attacked, and in the subsequent epidemic the reverse occurred. He believed that with some people the first attack was the worst, and subsequent attacks not so severe. They got immune to the particular germ in one locality. He had noticed at Murthly that when new patients and new attendants came they were attacked, not having been immune. He thought that accounted for a large number of the attendants who suffered at first, while subsequently the number was not so marked. Two patients had been cured by influenza in his experience. It has acted in a similar manner to thyroid extract. These two patients, who appeared to be falling into dementia, immediately recovered after the influenza passed off.

Dr. HAMILTON C. MARR said, in regard to the epidemic at Lenzie Asylum, that it occurred all at once. Patients and attendants were affected on the same day, and in very different parts of the institution. Some thirty attendants were attacked and two died, and about 220 patients were attacked within three weeks. Most of the attendants were laid up during that period. It appeared to be clearly an infection in the air, and not a contagion. The most noteworthy feature was the influence of influenza on the heart. One patient got out of bed and dropped down dead, yet no cardiac affection was discovered on post-mortem examination. Two attendants, one male and one female, fainted on getting out of bed. With regard to the mental symptoms, he did not think any of the patients were much affected by influenza, except, perhaps, some of them were quieter for the time being.

Dr. PARKER said that with regard to the simultaneous effect in the Gartloch Asylum, they had two epidemics, in both of which there were two or three cases in the out-door staff before any case occurred indoors; yet, when it began in the institution, the female side and the female staff were most readily attacked. There were two cases which seemed to be sinking into dementia whose recovery dated from attacks of influenza. The recovery from influenza and recovery from insanity were co-incident and rapid. Each patient made an uninterrupted recovery from the time he went down with influenza.

The CHAIRMAN (Dr. Yellowlees) congratulated Dr. Rorie on his paper and the consequent discussion. He thought that the original name of the malady was at least honest, and he was not sure that they knew very much more about it to-day, except that it was *an influence*. If Sir William Gairdner had been present he would have quoted—as he was fond of doing—a proof of the atmospheric source of influenza by a memorable story in connection with our war with the Dutch, when the two fleets were watching each other, and were each in the greatest anxiety lest they should be attacked, both fleets, unconsciously to each other, having succumbed to influenza, and being wholly unable to resist a warlike attack. One curious thing had not been alluded to, and that was the change of character that seemed to come over people after influenza. He had seen such a case in which the mental and moral tone were totally altered. He was very glad to hear that some patients had recovered their sanity after influenza; but he suspected that the patients were recovering at any rate, and that the influenza was a mere accident.

Dr. RORIE thanked the meeting for the interest taken in the subject.

Methods of rendering Golgi-sublimate Preparations permanent by Platinum Substitution. By W. FORD ROBERTSON, M.D., Pathologist to the Scottish Asylums, and JAMES H. MACDONALD, M.B., Pathologist, Glasgow District Asylum, Woodilee, Lenzie.

ALL histologists who have worked with the silver and sublimate methods of Golgi have experienced the great inconvenience arising from the facts that the preparations are not durable, and that in mounting them a cover-glass cannot be employed in the ordinary way. Preparations by the silver method generally remain in good condition for a somewhat longer period than those by the sublimate method; Golgi has indeed stated he has some which have remained unaltered for nine years. The sublimate method is now most commonly employed in the form of the modification of Cox, in which only one fluid is required instead of two. In preparing sections of tissues that have been kept for the necessary time in this fluid, it is practically essential to blacken the originally steel-grey deposit by one or other of the several methods by which this may now be done. Such preparations, when new, are probably unsurpassed by those obtained by any other Golgi-method; but, unfortunately, when mounted in the orthodox manner without a cover-glass, and in spite of the most careful attention to various other technical details that have been recommended for the purpose of increasing their durability, they almost constantly show disintegration of the black deposit in from four to six months, and are certainly absolutely useless within a year. Ever since Golgi's methods came into use, histologists have been endeavouring to find some means of overcoming this great disadvantage of want of durability of the preparations. The only measure of success that has so far been achieved is that obtained by means of various processes of gold toning. All gold methods are, however, notoriously uncertain in their results. This, of course, simply means that in carrying them out it is necessary to fulfil certain very precise conditions, and that these conditions are as yet imperfectly understood. Certainly the gold toning processes that have been recommended for rendering Golgi-preparations permanent are no exception to this rule. Our

own observations and experiments have been made chiefly upon sections of tissues preserved in Cox's solution, because we are convinced that Cox's method is for various reasons the most trustworthy process of this class that has yet been devised, and therefore the one most likely to be of service in studying pathological changes. We have tried the methods of Obregia and Golgi for toning sublimate sections with gold. With that of the former we have not had any success. On the other hand, with that of the latter (as briefly described in Jack's translation of Pollack's *Methods of Staining the Nervous System*) we have obtained some very beautiful purple-black preparations, which have now remained unchanged under a cover-glass for considerably over a year. In the great majority of instances, however, the results have been unsatisfactory, the deposit rapidly undergoing disintegration.

About two years ago we commenced a series of experiments with a view to obtaining a method of replacing the mercurial deposit in Cox-preparations by platinum. Such a replacement appeared to us to be possible in theory; it has proved also to be so in practice. We have each worked out a separate process, with which we are constantly able to obtain preparations that are permanent under a cover-glass. The only question that remains is whether or not the substitution is always complete. In many sets of sections it is certainly practically so. The details of the two methods are as follows:

Dr. Robertson's Method.— 1. Place sections in saturated solution of lithium carbonate (filtered) for fifteen minutes.

2. Wash shortly in water.

3. Place in equal parts of 1 per cent. chloroplatinite of potassium in distilled water, and of 10 per cent. citric acid in distilled water, for from one to two days. Keep in the dark. Both of these solutions must be freshly prepared.

4. Wash in water for from one to two hours. Change the water at least twice.

5. Place in equal parts of (*a*) saturated solution of iodine in 1 per cent. potassium iodide in water, and (*b*) water, for five minutes.

6. Wash in water.

7. Place for five minutes in a bowl of water to which two or three drops of strong ammonia have been added.

8. Wash well in water.

9. Dehydrate thoroughly in absolute alcohol. Clear in benzole. Mount in benzole balsam, with a thin cover-glass.

Dr. Macdonald's Method.—Wash piece of tissue, impregnated according to Cox's method, in a large quantity of distilled water, over night.

Transfer to rectified spirit for half an hour. Cut on Cathcart microtome by Coats's method, transferring each section to a watch-glass containing rectified spirit.

Neglect altogether the under part of the tissue in contact with the anise oil.

When the necessary sections have been obtained proceed as follows:

1. Transfer them from the rectified spirit to distilled water for a few minutes.

2. Place for twenty-four hours in { Solution No. 1 ♏120. Solution No. 2 ♏ 30.

Solution No. 1.

1 per cent. potassium chloroplatinite in distilled water.

Solution No. 2.

Sodium hyposulphite	1½	oz. avoirdupois.
Sodium sulphite	¾	„ „
Sodium chloride	¼	„ „
Distilled water	10	fluid ounces.

3. Transfer sections directly to a watch-glass containing one in eighty hydrochloric acid in distilled water; allow them to remain in this for two minutes; repeat this bath a second and a third time.

4. Pass sections into a watch-glass containing solution No. 2. Allow them to remain for ten minutes.

5. Transfer sections to watch-glass containing equal parts of (*a*) 1 per cent. iodine in rectified spirit; (*b*) distilled water. Allow sections to remain in this till they are of same colour as solution—no longer.

6. Clear and fix in solution No. 2 for ten minutes.

7. Wash in large quantity of distilled water for two hours.

8. Dehydrate. Clear in benzole and mount in benzole balsam, with cover-glass.

A brush or quill should be used in lifting the sections; metal needles and sections-lifters are inadmissible. It is necessary, too, that distilled water be used throughout the entire process.

Both of these methods are easy of application and, if their details are faithfully carried out, will yield fairly constant results. It must be borne in mind, however, that the initial impregnation in Cox's fluid is somewhat capricious in its behaviour. It may be incomplete and irregular to such an extent that the individual sections cut from the same piece of tissue vary greatly in the amount of detail which they show. To ensure the ultimate production of a satisfactory permanent specimen it is therefore necessary to see that the mercurial impregnation has been successful in the first instance. It is probable, however, that these platinum methods are still capable of further improvement.

Briefly stated, the special advantages possessed by the preparations are that they are permanent under a cover-glass, that they can be readily examined with ordinary high powers and with oil immersion lenses, and that the deposit is black, or nearly so. Our special object in working out these processes has been to endeavour to render Golgi's method more serviceable than it has hitherto proved in the study of pathological changes affecting the cortical nerve-cells in cases of insanity. We shall not, however, enter upon this subject here, but reserve it for a future communication.

Morbid Changes in Dementia. By JOSEPH SHAW BOLTON, B.Sc., M.D., B.S.Lond.

THE demonstration I am about to give on the "Morbid Changes in Dementia" is a preliminary report of an investigation which I have nearly completed, and which I propose to publish in detail later.

I have during the past four years carried out a micrometer study of the cerebral cortex from the point of view of general

histology or cortical lamination. During this investigation I have made a lengthy series of micrometer measurements of the whole of six occipital lobes, which are the parts of the brain least affected by the morbid changes occurring in mental disease, and also probably of relatively low functional activity in general mental processes, and have arrived at certain conclusions concerning the functions of the pyramidal layer of nerve-cells. The use of the least affected portions of the cerebrum during this investigation has enabled me to avoid many fallacies which would have occurred had I selected the grossly changed pre-frontal regions. I have found that the pyramidal layer of nerve-cells varies in depth according to the degree of normal amentia or dementia existing in the patient, whilst the other layers of the cortex remain, not relatively, but absolutely of the same depth as those in the normal adult brain (allowing of course for the necessary errors of measurement). The part of the pyramidal layer chiefly concerned is the layer of small pyramids, and this agrees with the extensive microscopic changes in those cells which are known to exist in general paralysis of the insane. I have also found, as would, *a priori*, be expected, that the pyramidal layer in the visuo-sensory region approximates more nearly to the normal depth, both in infants and in dements.

Lantern plates of normal "psychic" cortex, and of the "psychic" cortex of a child aged one month, and suffering from congenital anophthalmos, were then shown, and attention was drawn to the decreased depth of the layer of small pyramids in the latter compared with the other layers of the cortex, which were almost exactly of the normal depth.

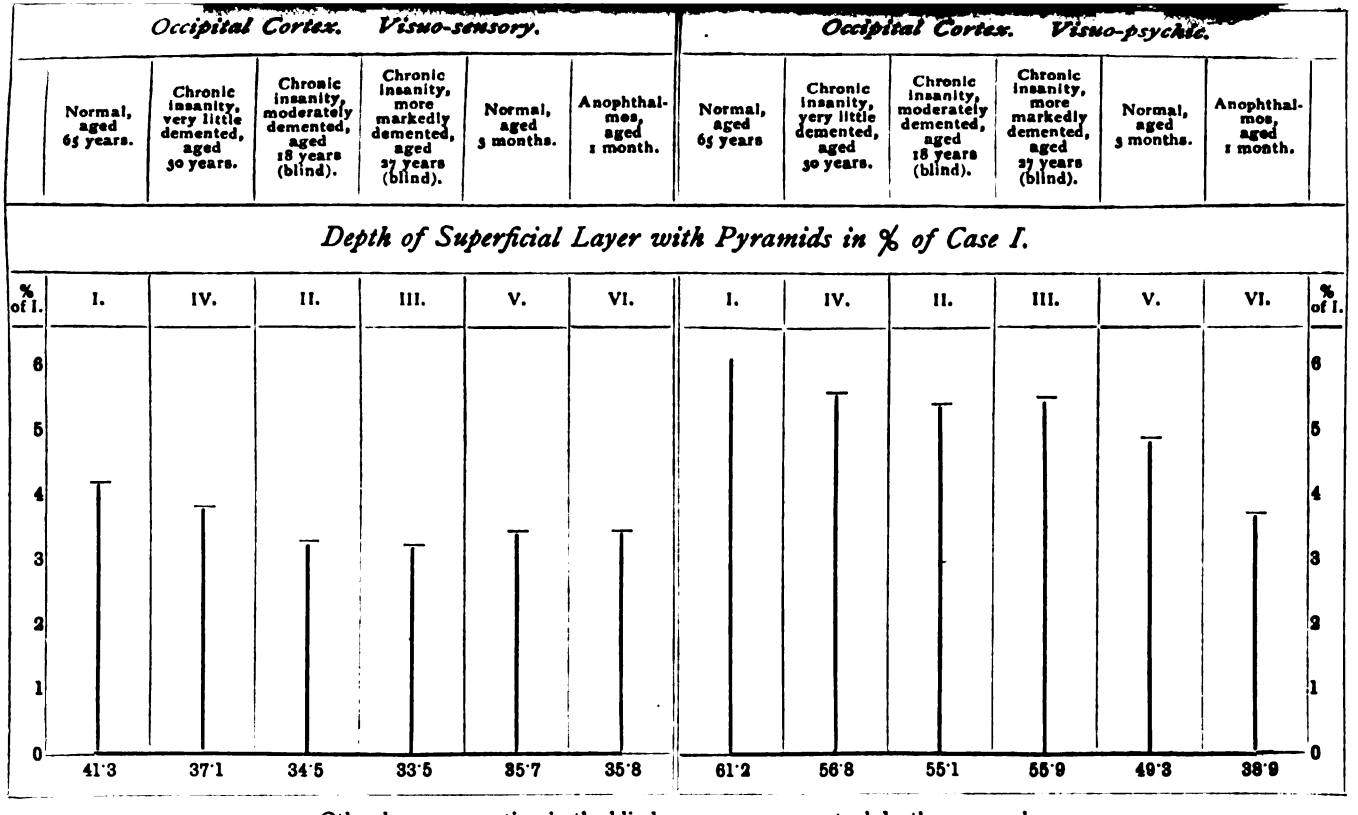
The following Table was then projected on the lantern and explained (see p. 332).

I have been led by these results to make a careful study of the morbid changes occurring inside the skull-cap in a series of cases of insanity, and have found, as I shall presently show, that these morbid changes vary in degree with the amount of dementia alone, and not, as is so frequently taught, with the chronicity of the case, and quite apart from the dementia existing.

I will now lay before you an analysis of 121 cases of insanity, grouped according to the amount of dementia present at death.

Morbid Changes in Dementia.

Group No.	Cases.	Type.	Ascertained duration.	Heredity.	Dura.	Subdural space.	Pia arachnoid.	Sub-arachnoid space.	Lateral ventricles.	Gran. lateral sacs.
I	21	No obvious dementia: 8 = Emotional or excitable; 4 = Slight imbecility; 6 = Chronic delusion cases; 2 = Vascular lesions; 1 = Cerebral abscess; 1 = Acute insanity with tuberculosis	Several years; Several years; Several weeks (1, 10 years)	9·5 %	Natural	Some excess in 28·6 %: 1 = subdural hæmorrhage; 1 = many small softenings; 4 = old persons	Slight F. or F.P. thickening in 5 cases. Stripped naturally	Slight excess in 9·5 %	Dilated slightly in 4·8 % (old focal lesion)	24 %
II	30	Mild dementia: 13 = Excited; 14 = Chronic insanity, + or − delusions; 3 = Chronic depression, + or − delusions	1—18 years	23 %	Thickened or adherent in 16·6 %	47%	Somewhat thickened in all, chiefly F.P. Stripped rather more readily than natural	40 %	Dilated 30 %	20 %
III	33	Moderate dementia + chronic insanity	1—40 years	24 %	18%	91 %	Moderately thickened, and in some slightly opaque, chiefly F.P. Stripped readily	91 %	57·5 %	33 %
IV	13	Marked dementia + chronic insanity	1—21 years	30 %	46 %	92 %	Opaque and considerably thickened. Strips very readily	92 %	69 %	38 %
V	24	Gross dementia	(?) 1—23 yrs. Histories very incomplete	25 %	29 %	100 %	Very thick and opaque. Strips like a glove	100 %	79 % (of those not dilated, 1 = calcar. arter. + seizures, 1 = fits)	46 %
	121									



Other layers, excepting in the blind cases, are same actual depth as normal.

I have investigated this point myself, so as to eliminate the personal equation which would have occurred had I made use of the reports of the several medical officers under whose charge the patients happened to be at the time of death.

Lantern plates of hemispheres were then shown to illustrate the various stages of cortical wasting associated with different grades of dementia (see p. 333).

The conclusions I draw from the facts I have laid before you are: (1) that the thickness of the pyramidal layer of nerve-cells varies with the degree of amentia or of dementia existing in the patient; and (2) that the microscopic morbid changes occurring in insanity depend on the amount of dementia alone, and are independent of the length of time during which the insanity has existed.

Discussion

At the General Meeting of the Association, Claybury Asylum, 14th February, 1901.

The President referred to the development of the embryonic brain cells, which progressed as the age and education of the individual advanced.

Dr. Wiglesworth said that Dr. Bolton's work, of which he had given the results on the screen, represented an enormous amount of labour. The results were of considerable value, and there was room for further research in the same direction. They were a little apt to neglect the chronic and work at the acute cases, but the mapping out of the cord had been done in connection with the chronic diseases, such as locomotor ataxy. The same thing had not been done with regard to the brain.

Dr. Robert Jones said that those who knew Dr. Bolton would appreciate not only the great industry, but also the accurate observation which he brings to bear upon his work. He thought they should be a little careful about using such terms as "psychic cells," which Dr. Bolton had defined as those not connected with either motion or sensation. In the chronic cases referred to they saw that there was a tremendous amount of waterlogging, and that in chronic dements the water increased even up to 100 per cent., as shown on the diagram. They knew, from Bevan Lewis's investigations, that there were lymph-connecting elements, which carried the lymph to, from, and around the pericellular spaces. They had heard nothing about them that afternoon, probably because the paper was connected with certain other definite cells, which they were told were "psychic" cells. Latterly one had heard much about the nucleus, and the influence that it has over the nutritive and functional activity of the cell. So long as the nucleus was not outside a cell—was not extruded—that cell had every chance of living, and perhaps regenerating and assuming its own definite functions. But if they considered the brain cells themselves, they would find that the large pyramidal cells—so-called motor—presented a very much smaller nutritive area than the angular cells, owing to the fact that in the latter the protoplasm was more broken up as it were, and presented a more extensive periphery in touch with the lymph; but the nuclei relatively were smaller in these larger cells than in the more superficial pyramidal ones. If they were to consider the nuclei of those cells, it seemed to him that, being in definite organisation with the larger and lower cells, they served to control the lower ones. Have we sufficient reason to consider these as the "tissue of mind"? It was not in the fourth layer of the brain that the atrophy

should take place, as he understood Dr. Bolton to have shown; but it should occur in the superficial layer, where there was a relative increase in the size of the nucleus and the size of the nerve-cell itself, and relatively also as to circumference in relation to the nutritive perilymph. One had to be very careful in assuming that there were such things as "psychic" cells. Bain had connected mind very much with the periphery, and he thought the same author was the first psychologist to connect Will with the muscular sense. They should be very cautious about allocating definite consciousness or psychic functions to particular cells.

Dr. BOLTON, in reply, said, with reference to Dr. Fletcher Beach's remarks, in the case of a very young child, or an embryo, all the cells were what were called neuroblasts. They contained very little protoplasm and very large nuclei. If the brains of children at different ages were examined, it would be found that with increasing age more and more of those cells became true nerve-cells, and ceased to be neuroblastic in structure. In the adult they could frequently find cells in all the layers, about which there had been considerable dispute. Many of these were probably undeveloped neuroblasts. With regard to Dr. Jones's remarks, he was much indebted to Dr. Jones for having so strongly supported the points he himself had been endeavouring to impress on his hearers. In the first place he, Dr. Bolton, said psychic *areas* of the brain; he spoke of areas of the cortex as psychic which were neither sensory, on the one hand, nor motor, or chiefly subserving efferent function, on the other. That was what he meant when speaking of the psychic cortex. With regard to the cells, when he was speaking of the layer of cells which he considered psychic, owing to the fact that they were a layer which were small in depth in children and also in dementia, he was not referring to the fourth layer, but to the superficial layer of all, the very one which Dr. Jones said ought to be psychic. [Dr. JONES.—You referred to the pyramidal.] They are pyramidal, small pyramidal cells, and they lie in the superficial part of the layer of pyramids, which extends as far as the granular layer. Dr. Jones said the nucleus was larger near the surface. That was so, because the cells were more neuroblastic, and the younger the child the larger the nuclei were. They were practically neuroblasts at one month. The larger pyramids could be looked upon as the truly formed cell, with all its potentialities developed, and it had a nucleus which they could look upon as of normal size and properly developed. Very few people had attained even approximately to the absolutely perfect development of brain power, and consequently many of the cells of the layer of small pyramids remained in a more or less neuroblastic condition.

Clinical Notes and Cases.

Case of Murder, the Result of Pure Homicidal Impulse.

By J. WIGLESWORTH, M.D., F.R.C.P.

CASES of murder committed in response to a pure homicidal impulse by a person otherwise rational, and free from hallucinations and delusions, are not of very frequent occurrence, and I have thought, therefore, that a narration of the following case, which I have been unfortunate enough to have had under my immediate personal observation, might present some elements of scientific interest.

As is usual in asylums where the medical superintendent's house is part of the institution, it has always been the custom for one or two female patients to be employed in my house to assist in general domestic duties. On the morning of August 1st last (1900) two female patients were so employed.

One of these, Hannah Hancox by name, a single woman æt. 48, had been an inmate of the asylum since August, 1896. She suffered from delusions, chiefly of a religious nature, claiming descent from various Biblical personages, etc., but was otherwise quite rational, and of a most peaceful, inoffensive disposition. She had worked in my house since the previous January, and being quite harmless, and moreover of a somewhat superior type to the majority of our patients, she had been allowed the run of the house—a liberty, I may say, which she much appreciated. I mention this because had it not been for this circumstance she would not have been in contact with the other patient at all, as her work lay in a different part of the house, but on this occasion she had of her own accord gone upstairs to get something.

The other patient, Mary Elizabeth Grainger, a single woman æt. 28 years, had been admitted into the asylum on the 28th of the previous March. At that time she suffered from a certain amount of mental depression, and had a somewhat vague delusion that people wished to poison her. She was decidedly reserved and taciturn. These symptoms, however, disappeared altogether in the course of a few weeks, and for nearly three months she had been employed at work in different parts of the institution—main corridors, kitchens, etc.,—and was regarded as a convalescent patient. She had only been sent into my house to work two days previously.

On the morning in question, August 1st, at 8.30, whilst I was at breakfast I heard some one screaming, and on finding that the screams, which were loud and persistent, proceeded from the top of my house, I hastily ran upstairs to see what was the matter. On arriving at the top (my house is a high one of three stories) I found the woman Hancox lying on her left side on the stone landing at the top of the stairs, and Grainger kneeling over her cutting at her neck with a knife. This bald statement of fact conveys but little idea of the horrible nature of the scene. What impressed me most vividly was the extraordinary ferocity with which Grainger was prosecuting the attack. She had the knife, which was an ordinary table one, buried in the right side of her victim's neck, and was working it to and fro with a sawing movement with such force and energy as to render it clear that she was actually endeavouring to cut the poor woman's head clean off.

She made no attempt to desist when she saw me coming,

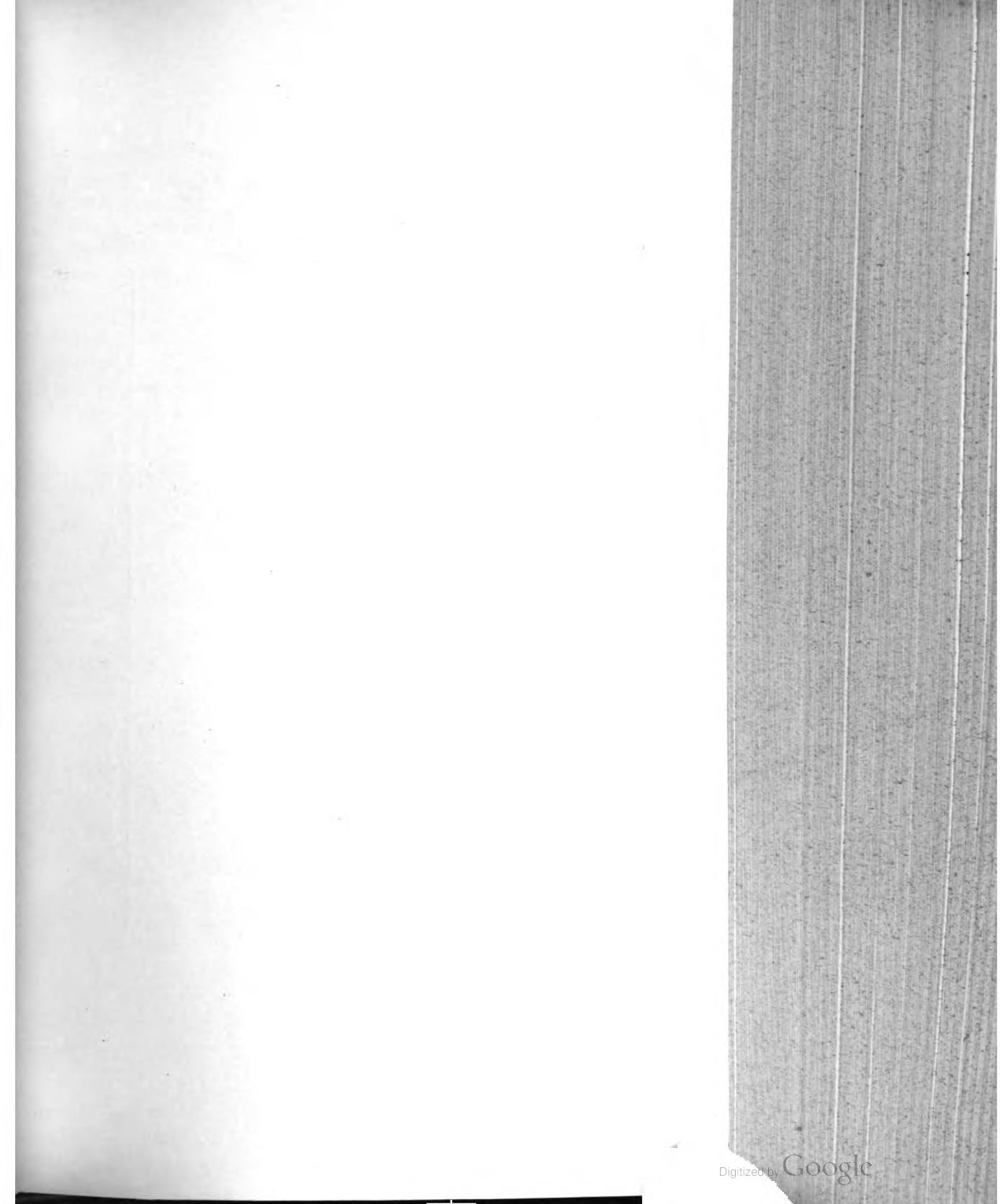
and I had to seize her, and drag her off her victim by main force. On throwing her backwards, her (Grainger's) head struck the wall with considerable force, and this gave her a useful shock, for it caused her to drop the knife, and she then ran into an adjoining passage, and did not interfere with me further whilst I attended to Hancox's injuries. At first sight it appeared as if the poor woman's head had been half severed from her body, and as a matter of fact this was not very far from being the case. She was bleeding profusely from a deep-seated vessel (afterwards ascertained to be the vertebral), and I devoted myself to controlling the hæmorrhage by manual compression until the arrival of my medical colleagues, when with some little difficulty we secured the bleeding vessels. In addition to the main wound of the neck (which I shall describe immediately) there was a gash some two inches in length across the back of the left wrist at the lower part, and some small incisions on the backs of the fingers of this (left) hand, and a deep incision between the thumb and forefinger of the right hand—wounds evidently caused in attempts made to defend herself. She had lost a large quantity of blood, her clothes being saturated, and there was a large pool of it on the floor, but it was very difficult to estimate the amount; it could scarcely, however, have been less than one and a half pints, and was probably more. After we had arrested the hæmorrhage and dressed the wounds the patient was removed to the infirmary, but in spite of all we could do she died two hours after the assault from shock and hæmorrhage. She was quite conscious, and stated that the woman Grainger had attacked her suddenly without warning, but as she was in such a weak state I refrained from putting many questions to her. The chief wound, and that which caused death, was a large transversely directed, gaping, jagged incision across the back and right side of the neck. Posteriorly it commenced one and a half inches beyond the middle line of the neck, and extended anteriorly to about the angle of the lower jaw on the right side, passing about three quarters of an inch below the attachment of the right ear. It measured altogether five and a half inches in length, and was fully two inches in depth at the deepest part. All the structures in this region had been severed down to the posterior spinous processes of the atlas and axis vertebræ, which could be plainly felt at the bottom of the wound, and imme-

diately anteriorly to these bones, in the deepest part of the incision, the vertebral artery was found divided in two places. It was the hæmorrhage from this vessel which was the immediate cause of death. The tip of the mastoid process of the right temporal bone had been severed, and lay free in the wound. The carotid artery and jugular vein were uninjured, but these structures had had an extremely narrow escape; they would doubtless have gone with another stroke or two of the knife.

At the time of the assault I formed the impression that this must have been committed under the influence of delusions, but on examining Grainger a few hours after the occurrence I found that this was not the case, but that the murder had been prompted by a pure homicidal impulse.

Grainger was at that time somewhat agitated, but quite rational and coherent. She told me, and she had previously made the same statement to the matron, that when she got up that morning she felt "desperate," and experienced an uncontrollable desire to kill some one; she felt that whatever happened she must "cut" somebody. She had no animosity against Hancox, she was sorry that "the poor thing" should have fallen a victim; she attacked her simply because she was the first person she got by herself, and would similarly have attacked anyone else had opportunity been afforded. She struck her from behind as she was stooping down to pick something up without saying a word. She got the knife from a locked cupboard (of which she had succeeded in obtaining the key) in the matron's kitchen, where she had formerly been employed, on her way to her work in my house that morning.

I could detect, I may say, not the smallest evidence either of hallucinations or delusions in the patient's conversation, and her rationality and coherence were such that, apart from a certain agitation of manner, it would have been difficult to say what was wrong with her. Later on in the evening, when her agitation had to a great extent subsided, the matron had a further conversation with her, and she repeated exactly the same story. She added, however, some interesting particulars. She said that a fortnight previous to this occasion she had felt the same desperate impulse to kill. She was then working in one of the corridors of the asylum, off which the female officers' mess-room opened, and the table being laid for dinner, she took the carving knife off it, hid it under her apron, and followed the housemaid upstairs to her room when she went to change her dress, with the intention of stabbing her in the neck. Another housemaid, however, happened to come in just at the moment she was seeking her opportunity to strike, which caused her to desist from her purpose, and so she went downstairs again and put the knife back on the table. She kept on at her work, however, and said nothing about it to anybody, and the feeling after a time passed off. She had a recurrence of it one



Three days after crime. 4/8/00.

On admission, 5/4/00.

To illustrate Dr. WIGLESWORTH'S paper—Case of M. E. G.

Adlard & Son, imp.

day when in the asylum kitchen, and tried to get one of her fellow-workers alone with her in the closet with the intention of killing her, but there were other patients about, and she was unable to effect her object. The enormity of the crime being pointed out to her she admitted it, and said she knew it was wrong, but could not help it—she felt she had to do it. She showed, however, nothing in the nature of remorse. She added, "I have the feeling now," "I want to cut some one now." She stated that her intention was to have cut her victim's head clean off had she been left to herself. That this latter statement was correct I had myself abundant ocular evidence, and though her other statements are, from the nature of the case, unsupported by other evidence, I do not myself entertain any doubt as to their correctness, harmonising as they do with all the surrounding circumstances.

Grainger's condition remained as above stated for about twenty-four hours after the event, but then she became rather moody and silent, and on the occasion of the inquest (two days after the murder), when she was brought into the room, she became excited and hysterical, and had to be removed.

She was more excited on the following day when she was taken before the magistrates at the St. Helens Town Hall, and whilst in court occupied herself in singing snatches of songs, such as "Grandfather's Clock," etc., interspersed with pert remarks addressed to one of the witnesses, finally collapsing on to the floor, and taking no further notice of the proceedings. She had commenced to menstruate on the morning of that day. She was removed to Walton prison the same day, and her condition whilst there is described by Dr. Price, the Chief Medical Officer, as being one of active excitement; she talked about murders, bodies floating down stream, cutting up babies, etc., and twice attempted to assault Dr. Price. She was removed to Broadmoor Asylum, by order of the Secretary of State, on August 15th.

I may add that physically Grainger was undersized, her height being 4 feet 10 inches, and her weight 7 st. 4 lbs. Her viscera were sound. Her features, though irregular, were not altogether unpleasing, and were not suggestive of the criminal type. Her forehead was somewhat high, her nostrils broad, and her teeth decayed. She was blind in the right eye from a cataract, and there was a slight droop of the left eyelid. She had a peculiar anxious, sad expression of countenance when first admitted, which disappeared entirely with the improvement in her mental symptoms, but returned in a much accentuated form after the commission of the crime.

The history of the patient is interesting, but this was only obtained after the occurrence of the crime, as nobody visited her during the time she was a patient in the institution, and such details as were subsequently gathered, especially with reference to her family history, were only obtained with some little difficulty.

Her parents were natives of Warrington, and were related to each other, being described as "half-cousins." Her mother committed

suicide by drowning at the age of forty-five—as a result, it was said, of business losses. A maternal uncle is of drunken habits, but the rest of the family history on the mother's side appears to be good. Her father is living. He is described as a peculiar man of intemperate habits, much given to wandering about and changing his residence; he used, at one time, to be very religious.

A paternal uncle and aunt are insane, and both of them inmates of Prestwich Asylum. Mr. Ley has been good enough to furnish me with particulars of these cases, from which it appears that the uncle has been in Prestwich for twenty-one years, and is now forty-nine years of age; he suffers from dementia, secondary to mania of persecution. The aunt is now fifty-four years of age, and has been an inmate of the asylum for five years; she has marked hallucinations of hearing, with delusions as to her own wealth and importance; she was an innkeeper.

Patient had altogether six brothers and sisters, but these mostly died young, and there is now only one living—a younger sister aged twenty-two: a brother died, aged twenty-eight, of spinal disease. It will be seen from the above that there is a strong family history of insanity, chiefly on the father's side, but the mother's side being by no means exempt. The fact that the parents were described as "half-cousins" is interesting in this regard.

Patient herself went through a severe attack of croup, sequential to measles, when she was three years of age. She was scalded on the shoulders and chest when seven years old. At nine years of age a girl struck her on the head with a can, which "sent her into fits" (what is meant here by "fits" I cannot say, but there is no subsequent evidence of the patient having been epileptic). She had been gradually losing the sight of one eye (from cataract) since she left school. She frequently suffered from neuralgia. She was of a quiet, reserved disposition, read a good deal, and always "looked downcast;" she was of a very religious temperament, and was always going to places of worship; was steady, and did not drink. She left home for London some five years ago, and since then her family have seen nothing of her, and the above remarks as to her steadiness refer to the time previous to leaving home; whilst she was in London there is evidence that she took drink at times, but whether she was immoral or not I have not been able to ascertain. She became an inmate of Lancaster Asylum on May 31st, 1894, and Dr. Cassidy kindly informs me that she was at that time in a nervous, hysterical state, in which she continued for about two months; she then improved and was sent to work in the laundry, being finally discharged on October 6th of the same year. It was after this attack that she went to London, where she lived for about five years, and seems to have led an erratic life, earning her living part of the time as a domestic servant and partly as a laundress, but spending a good deal of her time at a home in Bickerton Road, and at Bethnal House and Claybury Asylums. She was at one time locked up at Worship Street Police Court for attempting to commit suicide, and this may very likely have been the occasion of her being admitted into the home above mentioned. She appears to have been an inmate of this home on several occasions during the five years she was in London, and gave a good deal of trouble there at different times. The Sister Superior

writes me that she took bottles of whisky, wine, and laudanum from her. On one occasion she threw herself into a water-tank at the top of the house, and on another shut herself in with one of the girls with the intention of beating her; she also threatened to injure other of the inmates; finally the Sister Superior had to call in the police and have her removed, as she says she never felt safe whilst she was about. It seems clear from these statements that her homicidal propensities must have dated from some time back.

She was admitted into Bethnal House Asylum as a pauper patient on September 28th, 1897, and I am indebted to Dr. Kennedy Will for giving me particulars of her condition at that time. The certificate on which she was admitted stated that she was sullen and depressed, was subject to outbursts of causeless rage, and expressed a fixed determination to commit suicide. Amongst facts communicated by others, it was stated that when admitted into the insane wards of the workhouse she was violent and noisy, tore her clothes off and threw them about the ward, and had a delusion that she heard children crying. At the time of her admission Dr. Will informs me that she was depressed, sullen, and very reserved, but that the depression gradually wore off, and she never showed any dangerous or suicidal tendency. She was discharged recovered on December 24th of the same year, and after her discharge Dr. Will kept her on as a wardmaid until February 8th, 1898, when she obtained a situation as housemaid in some schools at Guildford. She showed her antisocial nature on this occasion by never taking any further notice of the matron, who had been very kind to her, and fitted her out with new clothes.

She next turned up at Claybury Asylum, into which she was admitted on November 14th, 1898, and I am indebted to Dr. Ewart for sending me, in Dr. Jones's absence, the notes of her case at that time. She was, when admitted into Claybury, depressed, taciturn, and reserved, and could not be got to give any account of her past life; she declared that life had no sunshine for her, she was weary of it, and wished she could die. In a fortnight's time, however, she had improved considerably, being described as much brighter and doing a good deal of work in the laundry; and her progress to convalescence seems to have been uninterrupted, for she was discharged recovered on December 31st of the same year. She was readmitted into Claybury on June 23rd, 1899, and was then alternately depressed and excitable, being very emotional and lacking in self-control. She improved pretty quickly, and within a short time of her admission was sufficiently well to be transferred to the laundry. Subsequently her condition underwent a slight relapse, but she continued at her work, and after a time she again improved. Her condition, however, was not sufficiently satisfactory to justify her discharge, and she was finally transferred, unimproved, to Prestwich Union Workhouse on November 16th of the same year (1899). Dr. Ewart writes me that she never gave any indication of having homicidal impulses, and no one would ever have suspected her of being capable of such a deed. Dr. Jones has since very kindly confirmed the above particulars, and tells me that he was greatly surprised to hear of the tragic act, as the patient showed no tendency of the sort during her residence in the asylum, being reserved and depressed rather than

threatening or impulsive; the only evidence, indeed, at all bearing upon homicide was the statement on the medical certificate that she had told the Sister Superior at the home at Bickerton Road that she would kill somebody in the home, and on one occasion did assault another inmate.

Shortly after her arrival at Prestwich Union (on November 16th) she was transferred by the medical officer from the imbecile ward to the body of the workhouse, and she "took her discharge" from the workhouse on December 1st, 1899. She appears then to have gone to Liverpool, for on March 1st, 1900, she was taken up by the police for breaking windows, and sent to Walton Prison; she was brought up before the magistrates in Liverpool a week later (March 8th) on the charge of wilful damage, and being certified by the medical officer of the prison to be suffering from melancholia with delusions of poisoned food, she was transferred to the workhouse; she was also certified to be suicidal.

Yet, in spite of this, when she was admitted into Rainhill Asylum on March 28th from this workhouse, it was definitely stated on the reception order that she was not suicidal, and no mention was made of her having been taken to the workhouse from Walton Prison, which fact only came to my knowledge after the commission of the crime.

It will have been observed from the foregoing that Grainger's condition, when admitted into the different asylums, was remarkably uniform—depression, reserve, and taciturnity being the most prominent features, and in all cases improvement in her symptoms pretty rapidly set in; and it is worthy of note that not one of the medical men under whose care she was appears to have entertained the least suspicion of any homicidal tendencies.

It is interesting to contrast the tendency to homicide which she appears to have displayed at the home in London where she spent so much of her time, with the apparent absence of such tendency in the asylums of which she was subsequently an inmate. For doubtless it was the surroundings and discipline of asylum life which exercised a restraining influence upon her, and showed her to be possessed of a not inconsiderable capacity for controlling her morbid impulses. And it may be noted here that she was always able to control these impulses when a third person was present, a condition requisite for her action being the capability of getting her victim alone by herself.

I have thought this case worth reporting partly on account of its rarity, but also by reason of the interesting medico-legal questions which it raises. That the woman was irresponsible for her actions is not to be doubted, but how can such a case as this be brought within the terms of the well-known legal dictum?

(1) Was the woman Grainger, at the time she committed the crime, suffering from any disease affecting her mind, which prevented her knowing the nature and quality of the act? This question can only be answered in the negative. Un-

doubtedly she knew perfectly well what she was doing, and had planned the deed with some amount of premeditation and artfulness.

(2) Knowing, as she did, the nature and quality of her act, was she aware that such act was wrong? This question might possibly admit of discussion, but it is difficult to see how any other than an affirmative answer can be returned. Her previous rationality, the absence of any delusional incentive to the deed, and the admissions she made subsequent to this, all seem to indicate that she was quite aware that her act was wrong; although it must be admitted that the callousness she displayed after the deed pointed to her possessing an antisocial nature, incapable of fully assimilating the teachings of its environment. She acted, indeed, in response to an overpowering impulse, and such impulses are not officially recognised in English law as carrying with them irresponsibility to crime. Had the case gone for trial it would have been interesting to have had the judge's ruling on the question, though of course, the patient having been an inmate of an asylum at the time of the committal of the crime, the result would have been a foregone conclusion. But supposing that the act had been committed when the patient was at large, as it very well might have been, judging from her history: the case would then have presented more difficulty, though the previous attacks of insanity suffered by the patient would of course have simplified the question. But there is no necessary connection between the development of such an impulse and previous attacks of insanity, and it might very well happen that a murder might be committed in response to an insane impulse of this kind by one in whose case there had been no previous history of mental disturbance. Such a case would present great difficulties in a court of law. Those of us who have had much to do with the giving of evidence at the assizes as to the mental condition of persons who have committed murder must have been impressed with the fact, that the mental attitude of the judge who tries the case is a much more important factor in determining the result than the actual phraseology of the legal dictum itself. I have known judges, in order to meet special cases, read into the terms of the dictum a meaning which the authors of it assuredly never intended it to convey; whilst I have known others adhere to the literal interpretation of the law in cases in which the

prisoner was undoubtedly insane from the medical point of view, though not from the legal standpoint. I submit, then, that in a case of the kind I have just reported the legal dictum breaks down. The obvious corollary from this is that this dictum ought to be amended, so as to bring it more into accordance with modern psychological knowledge, and I consider that such an amendment would be an advantage. But having said this, I am not prepared to urge that this Association should commit itself to any action in the matter. The question has, indeed, been so recently threshed out in discussion in this Association that it is unnecessary to dilate upon it here. But I must express my opinion that, though law and medicine are to some extent at variance on this question, and that a synthesis of opposing views would be a distinct advantage, I do not consider that under the present system any substantial injustice is done; and I am therefore in accord with the finding of the committee of this Association, which reported on this subject a few years ago. The system by which persons charged with murder, in whom there is any reason to suspect insanity, are now at the instance of the Treasury examined by a medical expert, whose evidence is submitted to the court at the time of trial, works on the whole well; and even when, as occasionally happens, a prisoner is condemned in opposition to the medical evidence, the Home Secretary will always, on sufficient reason shown, order a further inquiry by skilled medical experts, and will take action in accordance with their report. And I may add that I have almost always found the Prosecution very fair and open-minded in these cases, and never anxious to press the case against the prisoner if there were a reasonable presumption of irresponsibility. So that in my opinion the chief ground for agitation in the matter is cut from under us, and we shall have to wait for the gradual spread of medical knowledge, and the increased attention paid to psychological questions by members of the legal profession itself, for the reform which is already manifest in practice to become translated and crystallised down into legal formula.

A few words as to the psychological aspect of the case, to us the most interesting of all, and yet one upon which the present state of our knowledge does not permit us to speak decisively. The case indeed falls into line with the observa-

tions of previous writers, in that the woman Grainger, in whom this terrible impulse—this obsession—to murder existed, was a degenerate organism sprung from a stock strongly tainted with insanity; but this does not by itself furnish an explanation of the act—of the pathogenesis of the idea.

Whence can such a terrible causeless impulse to kill be derived, an impulse so entirely at variance with all the customs and sympathies impressed upon the organism by long converse with its social environment? Is the answer to be sought on atavistic principles, and are we to regard such an impulse as a reversion to a remote past when the desire to kill was sedulously fostered by the conditions under which life, human and pre-human, existed? Or was the act in this case merely the outcome of an explosive tendency, such as unstable nervous organisations continually display, and which in minor forms so many of our patients exhibit? Or, again, was the act the result of a mental pain (itself determined by a faulty inherited cerebral constitution) in an organism at war with itself, at war with the rest of the world, having a vague ferocious feeling of revenge against a society which had fashioned it and made it what it was—a being incapable of the happiness of normal human life, and nurturing an organic, perhaps hardly consciously formulated, desire to drag its fellows down to the level of its own joyless existence?

These and similar questions are more easily asked than answered, for one would need probably to have the feeling one's self, and at the same time the capacity for observing it with sober judgment, to furnish a satisfactory solution; and such a conjunction is a manifest impossibility.

Discussion

At the General Meeting of the Medico-Psychological Association, Claybury Asylum, February 14th, 1901.

Dr. Weatherley said he thought the following case had a definite bearing on the subject-matter of Dr. Wiglesworth's paper. Two years ago, on a winter's night, a cart and horse, belonging to a farmer who resided in the neighbourhood of Bristol, arrived home without the farmer, whose body was subsequently found a quarter of a mile from the house, on a lonely road, with fifteen incised wounds in it, the fatal wound being over the heart. There was no clue until a few days afterwards, when a boy aged seventeen gave himself up to the Birmingham police as the murderer. He had in his possession a little money and some papers, on which the words "blood" and "dead body" were repeated many times. He was the son of a butcher of intemperate habits, with a bad neurotic family history. The boy had been working in a shop in Bristol, when he met with an accident on the tramway, the tramcar passing over him and apparently injuring his kidneys.

From that time a complete change came over him. Previously his character had been good and he had been attentive to his duties, but he now became so rude and lacking in discipline that his employer dismissed him. He did not tell his mother he had been discharged, but sold some pigeons and paid his mother the usual weekly amount as if he were still at the shop. He spent his time wandering about the neighbourhood, with only one occupation, namely, whittling sticks, for which purpose he carried a large clasp knife. He was having some bread and cheese in an inn in the neighbourhood of Bristol, and the farmer in question happened to call, and, though he did not know the lad, offered to give him a lift on his way on ascertaining that he was going in the same direction as himself. The boy's description to him, Dr. Weatherley, was that while he was in the cart his hand accidentally went to the pocket containing his knife. He did not know what made him do it, but he had a sudden feeling that he must do something with the knife. He thereupon stabbed the man, commencing on his back. After that he leaped out of the cart and ran home, had his supper, and went to bed without saying a word. Next morning his little brother read aloud the news of the finding of the dead body, but he still made no remark. He left his home without giving any indication of whither he was going. Three days later he had given himself up to the Birmingham police. The case came on for trial at Gloucester, and he, Dr. Weatherley, gave evidence that it was a case of melancholia after the accident to his kidneys, the melancholia being attended with morbid impulses, and that the morbid homicidal impulse was coincident with the fact that he had a weapon in his hand. His own feeling was that if the boy had happened to have had opportunity at such a moment he would probably have set fire to a hayrick. Unfortunately for himself, the boy had recovered to a great extent during his sojourn in prison, and evidence was given to the effect that his conversation was not insane. The judge told the jury that his (Dr. Weatherley's) evidence partook of the nature of farcical comedy rather than of scientific evidence. The result was that the boy was sentenced to be hanged. But afterwards the sentence was altered to penal servitude for life.

Dr. Evan Powell said he was then engaged in a murder case in Nottingham, in which the question of automatism arose, and presented very considerable difficulty. The man in question murdered his wife and child, and declared a few hours afterwards that he forgot all about it, and still stolidly persisted that he knew nothing whatever of the circumstances. Apparently, in the opinion of his friends, he was sane up to the time of the murder, and he had been practically sane ever since. The murder was committed during the night, and next morning, when his daughter took up some tea for him and her mother, the father told her she must not come in, as they had had a bad night, though she might come later on. She went again later, but still failed to gain admission, and, becoming suspicious, aroused the neighbours, who broke open the door, and found the man sitting in a chair with his head bent on his breast, apparently unconscious. However, when the local doctor arrived, though he could not arouse him, on attempting to examine his eyes he prevented the lids being raised. He had been an affectionate father and husband, occupied a fair position, and, excepting that his habits were a little changed recently, in the way of becoming more extravagant in living, there was no alteration observable in his demeanour. When he, Dr. Powell, saw him, he was rational and calm and collected in every way, gave a detailed account of his life and of his doings on that particular night up to a certain point, at which he stopped and said, "After that I remember nothing until I was awakened at the Guildhall"—the police station—"when the police attempted to stomach-pump me." There was no personal nor family history of epilepsy. His father died of apoplexy, and a sister was insane. He had sunstroke many years ago, and also malarial fever. Otherwise he had always been healthy. The question arose whether, not being an epileptic, it was possible to lose consciousness and to commit a crime. Was such a man to be believed? Was it within the knowledge of any of those present that any condition of mind other than that of epilepsy gave rise to such a possibility?

Dr. Nootт said that in some cases the amnesia passed off, and then careful cross-examination after a few days would enable one to get at the motive of such crimes.

Dr. Morrison said that there was a patient under his care at that time who had

suffered from *petit mal* for ten years. The man in question had managed to conceal the fact, although in an asylum for two years at a time. His conduct in many ways took the form of automatism. One day he was seen in an epileptic condition. On recovery he confessed to him (Dr. Morrison) that he had these peculiar attacks, and that for twelve hours at a time he scarcely knew what he was doing or what place he was in before he recovered consciousness. On several occasions he had injured himself. Once he injured his penis so that it nearly sloughed away by tying a piece of cord tightly around it. At other times he stabbed himself on the site of an old inguinal hernia, and stuck dozens of pins in his body. He felt that he might at such times have injured people if they had been near him. His reason for concealing the fact of his unconsciousness at these times was to avoid being sent to an asylum.

Dr. ROBERT JONES said he was sure the sympathy of the members of the Association was with Dr. Wiglesworth in regard to the tragic event which had happened in his house. The patient in question was at Claybury twice—for six weeks and six months respectively—and on no occasion showed any homicidal impulse, although it was stated on the medical certificate on the second admission that she had declared she would kill somebody. That occurred in a Roman Catholic home in which she was just before admission to the Asylum. He had nothing to add to the very clear and lucid statement which Dr. Wiglesworth had made.

Dr. WIGLESWORTH, in replying on the discussion, said that Dr. Weatherley's case was very interesting, but it did not touch the legal dictum or the psychological causation; and he could not be surprised that the judge and jury should have come to the conclusion they did, considering that the medical experts in the case differed. With regard to Dr. Powell's case, he would call it one of double consciousness. He had had cases at Liverpool in which murders had been committed by patients who were not and never had been epileptic, and in which complete forgetfulness of the act had been expressed. He had had some of them under observation for years afterwards, having had to receive them at Rainhill when there was lack of accommodation at Broadmoor. He was satisfied that such statements were correct in certain cases. Of course, he could not include *all* in saying that. He considered them instances of double consciousness, in which during one period the person could do certain actions of which the same person at another period was entirely ignorant.

Insanity of Twins; Twins suffering from Acute Melancholia.

By ARTHUR W. WILCOX, M.B., C.M.Edin., Senior Assistant Medical Officer, Warwick County Lunatic Asylum.

SOME few cases on this interesting subject of the insanity of twins have been published in the English medical journals, the last one, I believe, being that by McDowall (1) in this JOURNAL, just seventeen years ago.

Some years later Clouston (2) and Savage recorded a case of general paralysis occurring in twin brothers, which was then the only published case of that form of insanity having been observed under this condition.

Of the five cases of true twin insanity published in this

JOURNAL, three occurred in females and two in males. Of the former, two were cases of melancholia, and one of mania. In both the latter cases a congenital defect existed.

In his 'Clinical Lectures on Mental Disease,' Clouston mentions the case of twin brothers, one of whom, a medical student, became insane. At the same time the other brother suffered from many premonitory symptoms of insanity; but by entirely changing his mode of life by going abroad, and by leading a healthy outdoor existence, he succeeded in escaping this direful malady.

Soukhanoff,(8) of Moscow, has recently published a paper on "La folie Gémellaire," under which head he includes all cases of insanity occurring in twins. He briefly recapitulates the twenty-nine cases which have already been recorded, and adds a thirtieth observed by himself, the case being one of primary dementia in twin brothers. This is the first recorded case of this particular form of insanity occurring in twins.

He finds that of the twenty-nine cases of various forms of insanity (including general paralysis) which have previously been observed in twins, in seventeen instances the patients were female, and male in eleven; in one case the sex was not indicated in the report.

He states that the alienation in twin insanity hardly ever shows itself simultaneously. In some cases both twins become afflicted within a short period of time; in other cases as many as twelve years have been known to elapse.

I wish to call attention to the fact that no case of insanity of twins has been recorded in which the individuals were of different sex. It would seem that the close moral resemblance cannot exist in such cases any more than the physical can do so.

The subjoined case of acute melancholia occurring in twin sisters is, I believe, remarkable for the fact that both patients were admitted on the same day, having been certified and brought to the asylum together. They are also considerably older than were the patients in the cases previously reported, having reached the age of forty-seven years before their removal to an asylum was found necessary.

I consider their case to be one of true twin insanity, and not of "folie à deux." My reasons for so doing are as follows:

(i) Simultaneity of occurrence.

To illustrate Dr. WILCOX's paper on "Insanity in Twins."
[Photographs taken by Dr. Miller.]

Adlard & Son, imp.

(ii) Parallelism of insane conceptions and of other psychological disturbances.

(iii) Spontaneity of the delirium in each of the individuals affected (Ball).(*)

The attack of acute melancholia occurred in each individual practically at the same time.

Each had the same dominant delusion, viz., that she herself was the most wicked woman alive and was unfit to live, and both attempted suicide just before admission. On perusing the notes it will also be seen how their speech, actions, and habits were almost identical.

The attacks of delirium in each likewise appear to have been spontaneous, the exciting cause in each case being stated to have been grief at the death of her father.

Two female patients, named Annie and Polly P—, were admitted to the Warwick County Lunatic Asylum on Thursday, August 23rd, 1900. They were twins æt. 47 years. Both were unmarried, and followed the occupation of tailoresses. Annie was the elder, and had generally been considered of better intelligence than her sister. She had passed the menopause, whilst Polly still continued to menstruate at irregular intervals. There was no family history of insanity. A brother, the only other child, had died of phthisis twelve years before. The mother, who had reached the age of eighty-one, was alive and well. She was stated to be a woman of fair education and intelligence. Their father, who had been head gardener in one family for a period of sixteen years, had died twelve months previous to their admission, he, also, having reached that advanced age. It was said that his daughters felt his loss very keenly, and it was stated to be the exciting cause of their alienation. They had lived for the greater part of their lives with their parents in a lonely part of the country and were greatly attached to each other, having seldom been separated for any length of time since their birth. They were said to have been hard-working, temperate, and industrious women, who had saved a little money.

Their personal resemblance was very striking. Their features and expression were markedly alike, and both suffered from acne rosaceæ.

They were about the same height and both were well nourished, but Annie was slightly the stouter, weighing 10 st. 7 lbs., while her sister weighed 9 st. 3 lbs. Their eyes and hair were exactly the same colour, and the tones of their voices were almost identical.

On admission they were suffering from acute melancholia, and had become insane about the same time. They were stated to have both attempted suicide a few days previously, Polly by drowning and Annie by cutting her throat. They were excited, restless, and emotional, their speech, manner, and gestures resembling each other to a most remarkable degree. First one would say that she was the wickedest woman alive, that nothing could save her, and that she had driven her sister mad, and ought to be separated from her: then the other sister would break

in, using the same words and tone, both crying and moaning and wringing their hands. They both kept repeating that they had been "irritating themselves." On the night of their admission they slept in the same observation dormitory, and it was soon made manifest what they meant by this expression, their conduct, conversation, and actions being most erotic and obscene, they being apparently quite oblivious of their surroundings.

On the third night after their admission they were put to sleep in different dormitories, and a draught containing chloral hydrate gr. 20 was administered to each. Annie was noisy and sleepless all night, and would not stay in bed, while her sister slept for a few hours, and then became noisy and troublesome.

During the daytime, when in the same ward, their emotions of fear, anger, and grief, etc., appeared to be markedly reciprocal; and when one became excited and violent (which occurred with increasing frequency before their separation) the other would immediately be seized with a like frenzy.

On the fourth day after their admission they were removed to different wards. During the few days they were together in the reception ward the nurses in charge could only distinguish one from the other by the fact that the elder twin had a slight black spot on her nose.

On August 26th, the first day of their separation, they were both restless and excited, Annie saying that she was all nerves, that she had killed her sister, etc. Polly was excited, emotional, and resistive, saying that she was being killed, and that something dreadful was going to happen to her.

On August 27th both patients were given a mixture containing Ext. Salix Nig. Liq. 3j; Pot. Bromid. gr. 15; Sp. Camph. ℥ 15; t. i. d. I may mention that this mixture had a markedly beneficial anaphrodisiacal effect in both cases for some time.

It is unnecessary to give the daily notes taken in these cases: a few will suffice.

September 1st.—Both patients, who have not seen each other for five days, say that they feel very ill, speaking in the plural number. Both made anxious inquiries after their mother.

7th.—Annie is much better mentally, and can converse rationally. Employs herself in housework and in sewing. Her sister also sometimes employs herself in darning stockings, etc., but does not show so much general mental improvement. She will also perform simple household duties, but always asks first "if Annie does it?" She is very anxious that her sister should not recover and go home before she does.

13th.—Patients met yesterday at the associated entertainments. Annie tried to cheer her sister up, and says that Polly thought that no one cared for her, which was the reason she got so low. The meeting did not unduly excite either patient.

October 12th.—Annie, who has been quite rational for some time, completely relapsed to-day; says that terrible fears come over her, and that she shall never get well. Polly is unimproved mentally; asks for poison or to be shot; says that she has lost her "pluck" and cannot get it back, which is also a favourite expression of her sister's.

23rd.—Annie is very despondent and threatens suicide. Wrote a

letter to her mother to-day saying that she was worse and should never get well; that she is a wicked mad person, and has driven her sister mad also. Complains that the asylum is too noisy for her, as Polly also did some days ago. The latter is very low-spirited: smiles in a tearful manner when addressed: says that she has reached the extreme and cannot go any further.

For the next two months both patients' mental condition remained unchanged.

January 1st, 1901.—The elder twin is again much addicted to evil practices: the younger is troublesome, restless, and resistive at times, but not so indecent in her habits.

25th.—Annie has been treated by drugs, cold baths, shower-baths, etc., but is still extremely disgusting in her habits and constantly trying to expose herself. There is no material change in her sister's condition.

At the present time patients' mental and bodily condition is quite unchanged, and I fear they both will become chronic cases of melancholia.

Note.—The accompanying photographs were kindly taken by Dr. Miller on the day after the patients' admission.

(1) *Journal of Mental Science*, vol. xxx, p. 262. (2) *Ibid.*, vol. xxxiv, p. 65. (3) *Annales Medico-Psychol.*, Sept.-Oct., 1900. (4) Tuke's *Dictionary of Psychological Medicine*, p. 1330.

Occasional Notes.

Inebriate Reformatories.

The first report of the Inspector of the Inebriate Reformatories under the Inebriates Act of 1898 is naturally of great interest.

The Act came into force on January 1st, 1899, but, although passed some months before, no certificate was granted to any reformatory until fully three months after the Act came into force, and it was still later in the year before justices realised that accommodation was available, and before any local authorities decided to aid the work.

Five certificates were, however, issued, three to one board of management (Brintry and Harfield), one to Duxhurst, and a fifth to St. Joseph's, Ashford. Eighty-eight inmates were committed to the reformatories in the year—a very moderate

number considering the mass of cases needing such treatment.

The Brintry and Harfield reformatories were developed out of a charitable retreat previously existing (the Royal Victoria Home), no less than twenty-three counties and boroughs contributing a thousand pounds (two thousand in two instances), on the basis that seven beds should be available to each thousand pound contributor for twenty-five years, an additional three shillings and sixpence per head per week being paid for cases in residence.

The Duxhurst licence comprises two cottages, which have been engaged by the London County Council; whilst the St. Joseph's Retreat (seventy-five beds) is reserved for Roman Catholic women.

Other schemes for reformatories are in process of development. The London County Council has purchased a large estate near Horley (Surrey), and is adapting the existing buildings. A Lancashire Inebriates Board (formed under a special Act) has also been constituted, and several other counties and groups of counties are preparing to act. These signs of activity are very promising, and there can be little doubt that next year's report will record the establishment of several additional reformatories and a very considerable number of committals.

One habitual drunkard committed to the reformatory was found to be insane, and was transferred to an asylum; and it has been arranged that such cases shall in future be dealt with under the Criminal Lunatic Act, 1884 (47 & 48 Vict., cap. 64), the patients being sent to asylums as if from prison, and subsequently, should recovery ensue, being remitted to the reformatory to complete their sentences of detention.

The inspector describes the admissions of the present year as of "the very worst type." "A large proportion, if not actually lunatics, are distinctly borderland cases." Probably this type of case will become rarer when the Act has been in operation for a few years.

The Inebriate Act of 1898, however, although affording some hope of relief from the more degraded and repulsive forms of habitual drunkenness, falls very far short of reaching to the root of the matter. There are thousands of inebriates who inflict unimaginable misery on their relatives, are a danger to

the community, a national curse by their evil example, and who die of alcoholic disease without coming under the cognizance of the law. One habitual inebriate who is legally convicted of drunkenness represents a score of others who are never convicted.

Habitual drunkards, indeed, die by the thousand every year. Their existence is known to the clergy, doctors, Poor Law authorities, and charitable associations, yea, even to the man in the street; and all these fully recognise the need of the interference of the law to arrest this ever-increasing horror. The legislative body alone in the whole country is ignorant or culpably negligent of this great national need. Frighted by the liberty-of-the-subject bogey—which is the most absurd of all our legal absurdities—the Houses of Parliament submit with callous indifference to the continuation of this most abominable evil.

The liberty of the subject is interfered with in scores of Acts of Parliament, from compulsory education downwards, and it would appear only to be invoked on behalf of evil-doers, such as persons engaged in the dissemination of syphilis, propagation of smallpox, or, like the drunkard, in spreading misery and poverty.

The Parliamentary conscience can only be reached by the prospect of loss of votes, and until rational philanthropists recognise this fact the legislature will continue to be controlled by the various interests, such as that of the brewers, or by the organised societies of enthusiastic emotionalists whose "sound and fury" appal the Parliamentary candidate.

The interest manifested in inebriety by the Upper House of Convocation, the Committee of Bishops, Conferences of Magistrates, the Charity Organisation Society, the Conference of Women Workers, and various other bodies within a very recent period, proves that a widespread and influential movement is on foot which only needs organisation to lead to practical results. With all this mountainous labour, however, it is disappointing that in the present session the only result has been to bring forth bills to extend the travel of the *bonâ fide* traveller to six miles, to make a black list of habitual drunkards in specified areas, to enhance the crime of drunkenness when in charge of a child, and to make habitual drunkenness equivalent to persistent cruelty, entitling wife or husband to separation and

protection. This last provision is of great importance in ameliorating the results of inebriety, but there is practically no legislative effort in the direction of prevention.

The Treatment of Crime.

There is no doubt that there is a wonderful change for the better in the treatment of crime. Although we cannot yet say that rational and satisfactory methods prevail, we find that year by year more intelligence and more humanity is infused into prison administration. It is now recognised that primitive measures alone are not corrective, and that the effective reformation of criminals can only be attained by making our prisons true schools and moral hospitals. A few years ago the ideals of Elmira were besmirched with abuse. Irresponsible smartness was facile in obvious criticism. The opinions entertained by Mr. Brockway—that youthful criminals should be accurately examined in every physical and mental relation; that their health and useful occupation should be primary considerations; that indeterminate sentences and liberation on parole should be adopted,—were hastily pushed aside as mere Yankee notions to be met by a cheap sneer and at once relegated to obscurity. But there are many signs that a little leaven is working, for the Prison Commissioners now report in favour of modern ideas—they can, in fact, no longer remain impervious to the scientific knowledge of the age.

The Prisons Act of 1898 had only been in operation for a year when the satisfactory outcome of its beneficent provisions was manifest. The limitation of corporal punishment has not been followed by an increase of prison offences; the improvement in the dietary has not caused an increase of crimes; and we confidently expect that the effects of differential treatment, of associated labour, of remission of full time of sentence, will be progressively better than has been recorded in the first returns of a tentative year.

To us, whose labours are spent in asylum work, these moderate reforms are but matters of course. Differential treatment is a necessity in dealing with the insane. The evils of associated labour can only flourish where the staff is insufficient and inefficient. Liberation is dependent upon conduct. What demon

of stupidity has closed the eyes of officialdom to the reasoned and profitable experiences of modern life? At last we are told that it has been found practicable to permit associated labour in some prisons with a full staff of warders, and that the results are excellent. The Commissioners bear the highest testimony to Mr. Brockway's sagacity in saying that, if the impression already made on them as to the salutary effect of the power to earn remission is corroborated by further experience, they will advise that there should be a shortening of the period entitling the prisoner to the privilege. Thus the perfect, unalterable principles of a year or two ago are to be completely revolutionised.

And, further, just as the science and art of medicine now deals with the individual patient in all his circumstances of heredity and environment, and not merely with his disease, however neatly it may be pigeon-holed as a pathological entity, so the judge is directed to study the criminal as well as the crime.

The debtors, too, are now compelled to work. They are no longer permitted to shuffle through a demoralising prison life. The result is that their numbers are notably diminished in most of the prisons—at Birmingham to the amount of 30 per cent. Perhaps this will encourage the Government to do as much for habitual drunkards one of these days. Then we shall hear less of inebriate retreats (*retreats, indeed!*) and more of inebriate reformatories.

On looking over the Scottish Criminal Statistics for the year 1900 we find a similar encouraging report, as regards serious crimes at least, although drunkenness has led to an increase of minor offences. This is shown in dark colours on comparing the number of prisoners recorded per 100,000 of the population: in England, 581; in Ireland, 839; and in Scotland, 1386. There can be little doubt that whisky is the effective cause of this national disgrace. Burns saw it clearly:

> "Wi' tippenny we fear nae evil,
> Wi' usquebae we'll face the deevil."

Dr. Crammond, in an instructive pamphlet on 'Scots Drink,' has traced the rise and progress of whisky, and laments that the earlier brew of low alcoholic strength has been discarded by the fashion of a later day. No wonder, then, that crimes of

violence are increasing, and that Glasgow, sodden with drink, maintains its unenviable position in statistics. Here is a note of the districts :

Glasgow and district	56
Edinburgh and district	5
Forfarshire	4
Renfrewshire	3
Aberdeenshire	2
Stirlingshire	1
Argyllshire	1
Ayrshire	1
Fife	1
Inverness-shire	1
Swindling in different districts	1
Total	76

Edinburgh, Aberdeen, and Dundee are singularly free from serious crime, and, curiously enough, not a single case comes from the whole Border region, from Berwick-on-Tweed to the Mull of Galloway.

Turning to the report of the Departmental Committee appointed to inquire into the provisions made for the sick, for ordinary, juvenile, and first offenders, for dietary and occupation, we find that there is no fault recorded as to the general treatment of prisoners in Scottish prisons. The Committee give high praise to the officials in charge, and state that the treatment of the sick has been successful and humane. They regard it as indisputable that the power of removal to hospital, especially for serious surgical cases, is one that should be preserved. Sixteen were thus removed during a year. But the Committee urge that, for the nursing of ordinary sickness in prisons, the warders should be specially trained, and in support of their recommendation they refer to the success attending on similar training in asylums.

Certain anonymous allegations had been made regarding the moral corruption of prison hospitals, but the Committee hold that these are unfounded, and they are not prepared to recommend that the association of prisoners on medical grounds should be absolutely forbidden, or that existing arrangements should be disturbed. They hold that the better course is to

adhere to the present rules, and to call in a trained nurse when trained nursing is required.

The Committee have no suggestion to make as regards first offenders, but they recommend the alteration in the dietary suggested by Professor Fraser and Dr. Dunlop, who found certain prisoners underfed, and laid down the guiding principle that sex, size, and labour should determine the question, and not sentence. Committing magistrates are advised to visit prisons and see the nature of the punishments they award, and the Committee finally recommend the appointment, as in England and Ireland, of a medical commissioner, whose presence on the Board in matters of medicine, disease, and insanity would be a source of strength. It is noted that, since 1878, no fewer than forty-seven Scottish prisons have been discontinued, so that there are now only fourteen in all.

The male prisoners from the City of Paris are sent to the new prison at Fresnes, about eight miles from that metropolis. It is a vast place, consisting of four rectangular blocks, with a detached infirmary. Eighteen hundred and twenty-four cells have been provided, but there is also accommodation for 400 prisoners in association. The cellular system is only some twenty-five years old in France, and it is the rule to limit that method to the first year of incarceration, thus practically including the great majority of offenders. Fresnes prison is, however, only half full, and the Governor states that crimes, or imprisonments at least, are decreasing in number in France ; while the aggregate received would be still further greatly diminished were it not for drunkenness. This is all the more remarkable, as he does not believe that drunkenness is sensibly more common than it used to be, notwithstanding the reports which have reached us —reports which, the Governor adds, "end in talk."

Useful occupation is a prominent feature of the management of this prison, and the prisoners are allowed to have a certain proportion of the value of their work. The money thus earned may be spent on extra food or personal requirements, exclusive of tobacco. There is a large library, and a hall which is used as schoolroom and chapel. The staff are instructed (as well as the prisoners), to qualify them for an intelligent performance of their duties.

This rapid survey of the modern treatment of crime, as presented by these few conspicuous examples of activity and

improvement, encourages us to believe that we are hastening on to still higher developments. Much remains to be accomplished, it is true, but the thin edge of the wedge has been introduced, and it is comparatively easy to drive it home.

We have referred to Mr. Brockway, and regret to note that his term of office at Elmira has come to an end, as is set forth on another page of this number of the JOURNAL. His system was sometimes regarded as a foolish pampering of evil-doers; yet it was also his fate to be held up to scorn on the accusation of undue severity. Vile crimes require sharp punishment, and the cat has yet its uses. The criminal and his punishment is one aspect of the question, the criminal and his reformation is another. The latter is what interests us.

Workhouse Lunatic Wards.

Workhouse lunatic wards have achieved an unenviable notoriety of late by the occurrence of several deaths, which have required the investigation of a coroner's jury.

In one case (that at Crumpsall) the night attendant, who had a hundred and fifty of all kinds of insane patients, distributed through a number of wards, to look after, was accused of having strangled a general paralytic who had been very noisy. A witness stated that the attendant had quieted the patient by twisting a towel round his (the patient's) throat.

A special Committee of the Manchester Board of Guardians appointed to inquire into the case (aided by the presence of an inspector of the Local Government Board) recommended that an additional attendant should be appointed. The Local Government Board has since this promulgated an important order, directing that the death of a lunatic in a Poor Law institution shall be reported to the coroner within forty-eight hours. The notice of death, signed by the medical attendant, must mention the time of decease, any unusual circumstances attending it, and also a description of any injuries known to exist at the time of death, or found subsequently on the body of the deceased. Mechanical restraint applied to the patient within seven days of death has also to be reported.

Lunatic wards in workhouses will not, however, become

places for the proper care and treatment of persons suffering from disease of the mind by merely making regulations to discover ill-treatment, or trying to avoid regrettable incidents by providing additional attendants only. They are not only almost universally understaffed, thereby practically compelling the use of undesirable means of "quieting" troublesome patients; but they are, with a few notable and praiseworthy exceptions, grievously wanting in the means and appliances necessary for the treatment of such cases. The medical officers are commonly overworked, underpaid, and treated in a niggardly fashion, not calculated to encourage zeal, but rather tending to bring that essential of efficient medical service to a minimum; they are not selected for having had special experience in the treatment of insanity.

The workhouse lunatic wards, indeed, need complete and wholesale rearrangement, with the clear recognition of the all-important fact that a few days' efficient treatment of incipient mental disorder may save the need of months of asylum care, and that inefficient or neglectful treatment may be therefore most costly to the ratepayer.

The reception ward for mental cases should be organised on the most liberal scale, and approximated to the reception houses which have been found so efficient in Australia, and the improvement would extend to the chronic wards. The "regrettable incidents" of workhouse lunatic wards have been so numerous that possibly the Local Government Board may be induced to press more vigorously for reform than it has hitherto done, and not be content with the recommendation for an additional attendant or elaborate reports, to cover the manifest deficiencies of insufficient means of treatment and defective organisation.

Pathology in Irish Asylums.

We are glad to find that the Silent Sister is endeavouring to become articulate after modern methods, and that our medical brethren across the Channel seem to have at last awakened to the waste of materials and of opportunities which has so long existed in connection with the Irish asylums. We are,

of course, quite familiar with the plea that nothing in Ireland happens in the same way that it does anywhere else, and the puzzled Saxon, it must be admitted, often feels inclined to accept this view of affairs in the green isle; but still we hold that people must generally die of disease or accident even in Ireland, and we cannot help thinking that the same results might be hoped there as elsewhere from the study, not alone of symptoms, but of post-mortem appearances. Nay, holding some respect for the Celtic genius to which Renan and Matthew Arnold paid such reverence, we cannot but regret that it has devoted itself so much of late years to politics, etc., and given so little attention to medical science.

As to pathology in Ireland up to the present, readers of this JOURNAL need not be told in what state it has stood. One or two superintendents have recognised its claims, and have done some work in this branch from time to time. Particularly we must remember the excellent though unfortunately small work done by our late distinguished associate, Ringrose Atkins—work done under great disadvantages, without assistance or sympathy, in broken health, and in the discouragement of labouring in a remote neighbourhood far from a medical centre.

At present a scheme is on foot for the establishment of a central laboratory for the Irish asylums, somewhat similar to that in Edinburgh, belonging to the Scottish asylums. Dr. W. R. Dawson deserves the credit of having worked up this project with great skill. He has induced not only the Irish Division of our own Association, who of course were not hard to convince, but a number of other scientific bodies to interest themselves in the scheme. The Dublin Branch of the British Medical Association, the Royal Academy of Medicine in Ireland, and the Colleges of Physicians and Surgeons have expressed their approval.

A difficulty arising out of the fact that the district asylums do not appear to have the power to contribute to an object outside their own district, an endeavour has been made to induce the Irish Government to introduce legislation permissive of a combination of various districts for this purpose, on the same lines as the provision in the English Lunacy Bill of last year, permitting counties to unite for this purpose. The matter was introduced to the profession and the public by Sir

George Duffey, in his Presidential Address to the Dublin Branch of the British Medical Association, and was very sympathetically received by the public. A deputation from the Royal Academy of Medicine in Ireland and the Irish Division of the Medico-Psychological Association, waited upon the Chief Secretary for Ireland on January 29th, for the purpose of pressing for legislative aid. Dr. Dawson made a most lucid statement, pointing out the feasibility of the scheme, and the necessity for merely permissive legislation. In his contention as to the advantages to be hoped from the adoption of his plan he was supported by Professor Cunningham, by Sir C. Nixon (President of the Irish College of Physicians), by Dr. Atthill (President of the Royal Academy of Medicine in Ireland and ex-President Royal College of Physicians, Ireland), by the Secretary of the Irish Division of the Medico-Psychological Association, and others. The Chief Secretary (Mr. Wyndham) cannot be said to have taken an unintelligent view of the question. He expressed general approval quite warmly, and disclaimed taking merely a utilitarian side in the matter. He seemed, indeed, to think that, as well as utility, the public ought to consider that the men engaged in the study of such a disease as insanity should be provided with the fullest field for study and improvement. This sympathetic attitude no doubt represents the "enlightened selfishness" with which a cultivated mind regards the progress of scientific work. Unfortunately Mr. Wyndham seemed to hold out little hope that the Irish Government would be actively helpful in the adoption of the necessary legislative change.

We must hope, however, that our Irish friends will not allow the affair to drop. In the present distracted state of public opinion across the Channel, it is a great step to have attracted so much attention to a question which does not touch on politics or personality. So much approval and promise of success has the scheme found, that we learn (*British Medical Journal*, March 9th) that the Public Health Committee of the Dublin Corporation, in reporting to the latter body on the advantages of a proposed bacteriological laboratory for Dublin, to be founded on the lines of the Jenner Institute, suggests "that one institute would fulfil all the requirements for bacteriological work, as well as for the proposed pathological

department in connection with the Irish lunatic asylums." While we hardly share the advanced views which the Public Health Committee seem to hold as to the bacterial origin of insanity, and, indeed, think that the confusion of two things so distinct in method, as the study of bacteria and of the higher nervous centres, is more likely to harm than to help both, yet the fact is hopeful that at least one public body seems to consider the foundation of an Asylums Laboratory as a foregone conclusion.

It is unnecessary in this JOURNAL to point out the advantages of such a project, or to labour to show the hopelessness of any advance in our specialty in Ireland while the scientific side of our work is neglected. The feasibility of the particular scheme suggested by Dr. Dawson has been already demonstrated in Scotland.

Notes and Queries.

DR. W. WATSON (Edinburgh) writes in reference to Dr. Ireland's study of Nietzsche, that Nietzsche's acute sense of smell is very characteristic. He regards it as a reversion to a lower type. But specially Dr. Watson says, "The weakness of his sexual instinct is childlike. He seems to have combined the intellect of a man with the morality of a child. Does such a combination often accompany non-developed sexual instincts? It ought to do so *a priori*."

Part II.—Reviews.

The Structure of the Nervous System in Man and the Vertebrates. By S. RAMON CAJAL, Professor of Histology in the University of Madrid. Vol. I.

THE work exhibited in this, only the first volume, is vast, thorough, and of wide interest. The book contains over 500 pages of printed matter, with numerous illustrations. A large part of the book records original research, and the matter embraced in this volume extends from a general summary of the nervous system to the comparative histology of the spinal medulla.

In a work of such size one cannot do more than note points here and there which seem to be of interest. Talking of the functions of nerve-cells, the author does not agree with Golgi in his theory that the dendrites have a nutritive function Neither does he now believe in the contractile power attributed to the nervous processes by Ord, Duval, and others. He mentions Duval's ingenious sleep theory based upon the supposed contractile power of the nervous processes only to refute it. In his earlier writings Cajal himself stated that he believed the nervous processes to possess the power of contraction and expansion.

The author classifies the pathological changes in the neurons under the following headings: changes due to (1) traumatism; (2) intoxicants; (3) toxins; (4) nutritive lesions. He regards the chromatic material of the cell as an unstable product which passes rapidly from a semi-solid to a liquid state on slight cause. The phenomena of chromatolysis he regards as not characteristic of any one pathological condition, but a common symptom of many nervous disorders. He thinks that chromatolysis represents a change in nutritive activity, and is compatible with cell life, and is almost always reparable. Further, he states that chromatolysis varies in position in the cell body according as the neuron is affected primarily or secondarily. Of all the various structures which go to constitute a neuron, the first to undergo change is always the chromatic protoplasm. Disintegration and vacuolation are the ultimate changes which are irreparable, and mean cell death.

In his observations upon the neuroglia he states that in his opinion it is entirely of epiblastic origin, and that in structure it is composed of glia cells with innumerable wavy processes, which form a protoplasmic network. He does not recognise such structures as glia fibres without cells, or glia cells without fibres. He agrees with the majority of observers in believing that the functions of the neuroglia are mechanical and reparative, but he also believes that it has non-conducting power, and is for this reason interposed between neighbouring nerve-fibres.

From the point of view of the illustrations and diagrams alone, many of them original, the book is well worth study, and I would specially call attention to the reproductions from preparations demonstrating the nerve terminations in the cornea of the rabbit; the minute ramification of the nerve-fibres in the anterior epithelial layer of the cornea; and the nervous plexuses in the tongue of the cat and in the endocardium.

Psychology, Empirical and Rational. By MICHAEL MAHER, S.J., Professor of Mental Philosophy at Stoneyhurst College, etc. Fourth edition. Longmans, 1900. 6*s.* 6*d.*

By those who, like the reviewer, have been brought up in the strictest sect of the Evangelical Pharisees, a work on psychology written by a Jesuit is naturally an object of the most lively and intense suspicion. We expect that under cover of an inviting candour, and an

engaging appearance of *naïveté*, the author will pursue with superhuman cunning the fell design of entangling his readers in the embraces of the Scarlet Woman. We read in fear and trembling, and at the end of each chapter we strictly examine ourselves lest unwarily we may have been entrapped into giving our adhesion to some of the cherished beliefs of Rome. When he treats of judgment and reasoning, we expect to find that both are belittled, and made subservient to dogma. When he treats of free will, we brace ourselves up against the anticipated demand for a surrender of our will to sacerdotal authority. We scarcely venture to follow his treatment of perception, lest we are unwittingly ensnared into an acceptance of transubstantiation. The very diagrams of the brain and spinal cord seem to diffuse an aura of specious persuasiveness. Fortified, however, by a reperusal of the *Institutiones Christianæ Religionis*, we have undertaken the task, and although at the outset we trembled lest we should be violently carried away from grace, we are bound to admit that there is nothing in the book that the most bigoted Supralapsarian might not read with approval and with profit. So far from seeking, with diabolical craft and subtlety, to seduce us into transferring our allegiance from John to Peter, the author maintains an attitude that is doctrinally so impartial that his book has been adopted as a text-book in more than one Protestant theological college. The standpoint is, of course, theological throughout, and the argument is throughout coloured by the necessity of bringing it to conclusions foregone; but it is theological in the most general sense, and the author claims no more than his just due when he says that it contains nothing to which not merely every Christian, but every Theist may not assent. The author is deeply learned in his subject. He is not only thoroughly familiar with all the most recent developments of modern psychology, but, what is much more uncommon, with the works of the great Schoolmen, now too much neglected, and this feature in his work gives it an exceptional value. His exposition of the views of his predecessors is extremely fair; and his criticisms, if they seem to us to be often ineffectual, are devoid of bitterness or animus. Books on psychology are, as a rule, unhappily lacking in literary graces, and are characterised by a quality of unreadability that, as has been shown by exceptional writers, from Hobbes to Spencer, is not necessarily inherent in the subject; but to this rule Father Maher is no conspicuous exception. He is not as obscure and repellent as many recent German and some English writers, but there is a lack of attraction in his style, and, to us at least, a lack of convincingness in his arguments. As a text-book, however, for the class of students for whom it is intended, the book can be thoroughly commended. It covers the whole ground; adverse opinions are candidly stated, difficulties are fairly faced, and the whole book has a ring of honesty and sincerity which speedily disarms such suspicions as those with which we approached it.

CHAS. MERCIER.

A Topographical Atlas of the Spinal Cord. By ALEXANDER BRUCE, M.A., M.D., F.R.C.P.E., F.R.S.E. London: Williams and Norgate, 1901. Price 42*s*.

Most of those who have worked at the subject of the normal and pathological histology of the human spinal cord have felt the great disadvantage under which they often laboured in being unable to tell the exact portion of the organ represented by a particular set of sections. Such workers have reason to be extremely grateful to Dr Bruce, who, by the production of this atlas, has furnished a ready means of determining the segment from which almost any section has been taken. The illustrations consist of thirty-two photogravure plates, which, for clearness and artistic effect, it would probably be difficult to match among publications of this class. They are reproduced from two series of microscopical preparations. The first series, photographed under a magnification of twenty diameters, shows the arrangement of the nerve-cells as displayed by toluidin blue staining; the second, photographed under a magnification of ten diameters, demonstrates the shape of the grey matter as it is depicted by a modification of Heller's method. These two series of illustrations are set side by side. Each plate is representative of a single segment, excepting that two plates are required for the eighth cervical segment. The comparative features of the various segments, and more especially the origin, course, and termination of the various cell-groups, are fully explained in a very clearly written introduction, whilst the special characters of the individual segments are described on the page facing each plate. Several new and highly important anatomical facts are brought out. It is shown that each segment in the cervical and lumbo-sacral regions has characteristic features by which it can easily be recognised in microscopical preparations. There is more difficulty in respect of the dorsal segments. Whilst the first, second, eleventh, and twelfth have features by which they can readily be distinguished, those forming the intermediate portion have not. It is possible, however, to determine whether a section from this portion has been taken from its upper or from its lower part, and also to place sections from several of its segments in their order in the series.

It is almost superfluous to say that the whole work bears evidence of having been planned and constructed with the strictest regard to anatomical accuracy. The great technical difficulties that the undertaking must have presented could not have been overcome except by one with the special knowledge and experience gained by years of original observation in the same field. In producing this most useful atlas Dr. Bruce has done a new service to neurological science, the results of which should very quickly be manifest. In future descriptions of pathological appearances observed in the human spinal cord, the comparatively indefinite terms "cervical," "lumbar," etc., cannot be regarded as adequately localising the morbid alterations; it will be necessary to specify the segments in which the changes have been found.

Archives of Neurology, from the Pathological Laboratory of the London County Asylums, Claybury. Edited by F. W. MOTT, F.R.S., M.D., F.R.C.P. 8vo, 1899, pp. 552. Illustrations. Printed for the London County Council. (Can be had from the Agents for their publications: King and Son, Great Smith Street, S.W.) Price 15*s.*

Under the above title we welcome the first fruits of the establishment of a central laboratory, at Claybury, for the London County Asylums, under the Directorship of Dr. Mott.

This initial volume summarises the work done in the laboratory up to about the middle of the year before last (the present volume is undated, but appeared during the latter end of 1899); and as its cover bears the words "Published Annually," we may hope very shortly to see its successor.

The movement and aspirations that led up to the formation of this laboratory, and a clear description of it and the adjoining mortuary, are set forth in an admirable preface by Dr. Collins.

The importance of the volume must not be gauged solely by the value of its contents, but also by the fact that it represents the earliest results of the first attempt made to combine the resources of several asylums for the purpose of pathological research—an example which has already been followed in Scotland, and which it is hoped the new Lunacy Bill will render permissive more generally, by allowing neighbouring authorities to unite for the purpose.

It also emphasises the new departure made by the London County Council when Dr. Mott was appointed, for, contrary to the usual practice of selecting as pathologist a junior and, often, inexperienced man, it appointed one who had already gained a world-wide reputation in neuro-pathology.

These archives are at present the sole representative of any annual medical publication arising from any English asylum. They were, however, foreshadowed by the invaluable *West Riding Asylum Medical Reports*, unfortunately now extinct for many years.

The volume under consideration is well illustrated. The pen of the Editor contributes some 327 pages, to which must be added other 40 pages embracing papers by himself jointly with others. The Technical Research Scholars, working in the laboratory, contribute some 81 pages, while 72 pages find an authorship among Assistant Medical Officers of the various London Asylums. The latter is a healthy sign, and it is pleasant to see Dr. Mott's acknowledgment, in his various papers, to the Medical Officers, for their clinical records, showing a general all-round earnestness of purpose. At the same time we might venture to question the advisability, when quoting notes from the several asylums case-books (to which no objection can of course be raised), of appending the writer's name, unless permission for such had been previously obtained. Unfair inferences might be drawn when the circumstances are not fully understood.

No attempt at describing the papers *seriatim* is here purposed; they are receiving individual attention elsewhere in the JOURNAL, but it may be said that an appreciable portion of the Archives deals with

General Paralysis, to the extent of some eight or nine papers, amounting to about 186 pages. The *Relationship of Syphilis and General Paralysis* bulks even greater, occupying some 192 pages, to which may be added a portion of the article dealing with *Juvenile General Paralysis*. A third subject of extreme practical importance is dealt with in a paper on the *Ætiology of Asylum Dysentery*, which, however, takes the form of a preliminary report, the conclusion of which we hope to see at some future date. Full advantage has been taken of the provisions for bio-chemical research in the laboratory, as shown by several articles such as that on *The Amount of Water and Phosphorus contained in the Cerebral Hemispheres and Spinal Cord in General Paralysis, etc.*, and *Observations on the Chemistry of Nerve Degeneration*.

Among the contributions by Assistant Medical Officers we especially note that on *Telangiectasis of the Left Frontal Lobe with Epileptiform Convulsions*, as well deserving of mention. Apart from neurology, there is a paper on the *Prevention of Phthisis in the Insane*, which has already interested readers of this JOURNAL. The question of phthisis is also touched upon, with regard to its occurrence in epileptics, in a paper on *Some Statistics relating to Epilepsy in Hanwell Asylum*.

Fact and Fable in Psychology. By JOSEPH JASTROW. Boston: Houghton, Mifflin and Co. London: Gay and Bird, 1900, pp. 375, 8vo. Price 2 dollars.

Prof. Jastrow has long been known as one of the most eminent among American psychologists of the new experimental school. As such he was invited to contribute to Tuke's *Dictionary of Psychological Medicine*, while one of the main sections of Baldwin's forthcoming *Dictionary of Philosophy and Psychology* has been entrusted to his care. He is, moreover, one of the few psychologists who can write in a lucid and attractive manner, without, in so doing, cheapening the scientific quality of his work. The present volume is frankly popular, but in the best sense, and it may be read with equal pleasure by those who are familiar with the subjects dealt with, and those to whom they are more or less novel, at all events in their scientific aspects.

Perhaps the least happy part of the book is its title. So far as the title indicates, the book might deal with any question or any number of questions within the vast range of psychology. In reality it deals with a great many different aspects of one single subject—the modern "occult." Very various as are the topics discussed—hypnotism, faith-healing, spiritualism, conjuring, optical illusions, involuntary movement, —they all have a very real bearing on the elucidation of these modern mysteries, which exert as profound an influence on weak and credulous minds to-day as the witchcraft phenomena of a few centuries earlier. The only chapter which can be said to have but a remote bearing on the main subject of the book is the concluding study of the dreams of the blind.

Professor Jastrow is not among those scientific Pharisees who regard the wonder-seeking multitude with lofty contempt, as either knaves or fools, and comprehensively pooh-pooh all mysterious phenomena. It is true that his attitude is strictly orthodox; he refuses, for instance, to accept any kind of telepathy as proved. But he is well aware that these occult phenomena rest on psychic and nervous tendencies of the organism, demanding careful study; and he is far from feeling contempt for those who misinterpret them. He emphasises (as in the fully illustrated chapter on optical illusions) the falsity of the common notion that "seeing is believing," and smiles good-humouredly at the array of scientific men who are brought forward to bear witness to the "facts" of spiritualism. The study of a medium, as he well points out, is an expert study; no proficiency in any other field will avail; to observe a medium accurately requires a special technical training, and without training no one has the right to affirm the genuineness of mediumistic phenomena, just as he has no right without training to pronounce on the genuineness of a Syriac manuscript, or to diagnose a case of tabes. The very interesting study of the phenomena of conjuring—"the psychology of deception"—comes in to give additional force to this point.

An altogether different aspect of the subject is brought forward in the "Study of Involuntary Movements," in which the author presents (with graphic tracings) the results of various experiments carried out with his own instrument—the automatograph,—illustrating unconscious muscular movement in sympathy with the mind's action. Other aspects, again, are illustrated in a study of "Mental Prepossession and Inertia," and in another dealing with the powerful influence of analogy on the human mind. Not the least interesting study in the volume is the longest of all, "Hypnotism and its Antecedents;" the story of the rise and progress of hypnotism has often been told before, but never in a more judicious and attractive manner, and full justice is done to the precursors of Braid, especially Puységur and Faria.

While such a volume as this appeals to a somewhat wide circle of readers, it may not be out of place to remark that it is of special interest to alienists. At the present day the delusions of witchcraft and diabolism, which afflicted unbalanced minds in mediæval days, have given place to two groups more in consonance with the modern environment: one physical, the group of electric forces, with a paraphernalia of batteries, telephones, and microphones; the other psychic, with hypnotism, spiritualism, and telepathy. When an unbalanced man with intellectual instincts nowadays finds himself the prey of nervous and sensory disturbances which are too intimately a part of his own organism to be truly understood, he is usually impelled to seek their explanation in one or both of these groups. It is, perhaps, not always realised with sufficient clearness that, in one point of view, the delusion is not so much itself the insanity as the reaction of the man's reason against his insanity. As he builds up his systematised delusion, so he gains greater peace and self-control, for it seems to him that he is learning to understand the forces that are fighting against him, and is in a better position to protect himself. It is a terrible thing to hear an infallible voice declaring that you are about to be murdered; it is a

less terrible thing if you can convince yourself that the voice is due to thought-transference, and perhaps comes only as a friendly warning. A delusion may thus be regarded as nature's attempt to regain healthy mental action. It is a working theory which enables a man to attain a certain amount of mental peace, in spite of hallucinations and other morbid phenomena. It is thus easy to understand the ardour with which the unbalanced study occult phenomena. It is also easy to understand the feelings of the supposed victim of psychic operations towards the physician whom he finds to be a mere layman in the very science which seems to furnish the key to his sufferings.

Such a book as this of Prof. Jastrow's, dealing with the main aspects of the modern occult at once so competently and so attractively, may therefore be not without value for the alienist. It should certainly be of value to the general public as an antidote to various fashionable crazes. It is a book that in some cases may be placed in the hands of those who are already under the sway of delusions; for, useless as arguments are, a point sometimes arrives when it is possible and advantageous to switch the delusion on to a more promising track.

HAVELOCK ELLIS.

Ueber Entartung [*On Degeneration*]. Von Dr. P. J. MÖBIUS. Wiesbaden: Bergmann, 1900. Pp. 26, large 8vo. Price 1 mark.

This brief study belongs to an admirable series of pamphlets (*Grenzfragen des Nerven- und Seelenlebens*) dealing with borderland questions of psychology and psychiatry, edited by Drs. Loewenfeld and Kurella, and contributed to by many well-known German and other alienists and neurologists. These are not exclusively intended for professional readers, but aim at presenting clear, concise, and competent discussions by specialists of those aspects of the study of the brain and nervous system which are of vital significance in hygiene, education, ethnology, anthropology, sociology, and legal medicine. The scheme, it will be seen, is a wide one, but so far it is being competently carried out, and it is well worthy of imitation in other countries.

Dr. Möbius's discussion of the general aspects of that study with which his name is chiefly associated is not intended, he carefully explains, to lay down laws or reach final conclusions, but merely to indicate the trend of scientific work in this field, and to arouse thought. Somewhat in the same way as Magnan, he regards degeneration as an instability or disharmony of the nervous system, manifesting itself also in physical stigmata and syndromes. He defines a degenerate person as one who shows hereditable deviations from the type. He considers that the presence of five or more stigmata indicates with very great probability an abnormal disposition of the brain, but he belongs to the strictest sect in this matter by maintaining that even a single stigma shows that we are in presence of a person whose nervous system is not normal.

The discussion concludes with some observations regarding criminality and genius, both of them topics which the author regards as

properly coming within the scope of his subject. Criminality he considers to be a disharmony resulting from abnormal defect of development on one side, and genius a disharmony resulting from abnormal excess on one side. He points out that the view does not necessarily lead to any fundamental change in the treatment of the criminal; he would maintain capital punishment for murderers, just as we kill various animals without troubling about the question of their "responsibility." At the same time—it would appear, not quite in harmony with this view—he emphasises the importance of adapting the punishment to the individual criminal, and of aiming to make him a decent member of society. HAVELOCK ELLIS.

Ueber den Traum [*On Dreaming*]. Von Dr. SIGMUND FREUD. Wiesbaden: Bergmann, 1901. Pp. 37, large 8vo. Price 1 mark.

This is another study in the same series of *Grenzfragen*. Dr. Freud, of Vienna, is well known as the author, with Dr. Breuer, of a study of hysteria, remarkable for its very subtle psychological analysis, although its conclusions—more especially its insistence on the great significance of more or less unconscious lesions of the sexual emotional sphere—have not been unanimously accepted.

The author shows here the same power of delicate analysis which marked his study of hysteria. He takes a dream of his own, and then investigates it in minute detail, working out its ramifications and their significance, illustrating his analysis in its course by other dreams and other allied phenomena. He believes that dreams—he even goes so far as to say all dreams—are, on thorough analysis, found to refer in a more or less disguised way to private and intimate emotions. A dream would thus be something more than the mere activity of partially aroused groups of brain cells; it is a kind of substitute for an emotional process, so that we have to distinguish between the *apparent* dream-content and the *latent* dream-content. The whole work of the dream consists in the process by which the latter is changed into the former, this process occurring somewhat in the same way as a composite photograph is formed. It is impossible here to follow the very subtle analysis by aid of which the various stages in the dream process are unravelled. Reference may, however, be made to the interesting passage in which, considering dreams of one class as the concealed fulfilment of repressed desires, the author points out that so far from dreams being, as many suppose, the disturbers of sleep, we may with much more reason regard them as the protectors of sleep, lulling us to repose with an imagined fulfilment of our wishes. This is seen with especial clearness in the case of children's dreams.

It is probable that somewhat the same criticism may be brought against Dr. Freud's study of dreaming as has already been brought against his study of hysteria; it may be said that the analysis of a few cases, however elaborate and minute, scarcely enables us to generalise. We may certainly agree with him, however, in recognising the psychological interest of dreaming, and the desirability of studying its phenomena. The dream process, he remarks, is one of a whole series of processes.

including hysteria, delusions, obsessions, and many minor mental anomalies of everyday life. By studying dreams it may well be that we become the better fitted to explore the mysteries of these allied conditions, even if we do not, as the author is inclined to think, find in dreaming some of the keys to the interpretation of those conditions.

HAVELOCK ELLIS.

Clark University, 1889—1899. *Decennial Celebration.* Worcester, Mass. Printed for the University, 1899; pp. 566, 4to.

Although Clark University is so young an institution, there is no psychologist, in whatever branch of normal or morbid mental science he may be interested—who is not familiar with the valuable and suggestive work which has been carried on there under the inspiring influence of President Stanley Hall. Clark is essentially a post-graduate university; it is confined to work in a few departments (mathematics, physics, biology, psychology, psycho-pathology, anthropology, pedagogy, and philosophy), and it admits such students only as give promise of ability, not merely to pursue brilliant studies, but to benefit the world by the advancement of science. It is a high ambition, but the number of able men Clark University has already sent out to occupy prominent college professorships and pursue important scientific investigations testifies to an extraordinary degree of success.

The decennial anniversary of Clark University has been made the occasion of a great commemoration, which finds a permanent record in this large and handsome volume, edited by W. E. Storey and Louis N. Wilson. Here we may find ample evidence, not only of the admirable scope and aim of the university, but of the actual work produced; even in mere amount this is considerable, and the appended bibliography of publications by past and present members of the university occupies over 100 pages of small type. An interesting address by Prof. Stanley Hall, and reports by the heads of the various departments (Drs. W. E. Storey, A. G. Webster, C. F. Hodge, E. C. Sanford, A. Meyer, A. F. Chamberlain, W. H. Burnham, and Stanley Hall), serve to reveal the character of the work carried on and the value of the spirit animating that work.

The great feature of the commemoration consisted, however, in fourteen lectures delivered by five European men of science, all of the first eminence in their own departments, who crossed the Atlantic for the express purpose of delivering these lectures. These were Professors Picard (Paris), Boltzmann (Vienna), Ramon y Cajal (Madrid), Mosso (Turin), and Forel (Zurich). It is significant of the tendencies of Clark University that not less than three of the lectures are associated with some aspect of mental science. Nearly half the volume is devoted to the reproduction of these lectures, which are in some cases illustrated, and are accompanied by excellent portraits of the lecturers. The lecturers generally were well inspired in selecting topics representative of their own subjects and characteristic methods. Prof. Ramon y Cajal chose the visual cortex, and dealt in an orderly, precise, and technical manner with its special characteristics, and with a description of the

nine layers which he distinguishes in that region of the cortex. In his third and concluding lecture he discussed the sensori-motor cortex generally, maintaining throughout a strictly histological point of view, and excluding all speculation. These lectures are models of concise and exact exposition. Prof. Mosso's method is very different: he chose as the subject of his first lecture the intimate relation between psychic processes and muscular exercise; while his second lecture, on the mechanism of the emotions, was devoted to an account of his well-known and highly important experiments (first on dogs, then on women) demonstrating the extreme sensitiveness of the bladder to the slightest mental and emotional disturbance. But in dealing with these strictly scientific subjects Mosso shows, as usual, a pervading sense of the intimate bearing of science on life, and a readiness of apt allusion, which impart a certain personal charm to all his work. In the first lecture he states his strong opinion that in early life the development of the brain is much more aided by muscular exercise than by mental work, and he believes that we must return to the view of some of the great Greek philosophers, and not allow children to read and write till they have reached the tenth year. Prof. Forel's two lectures are striking by reason of their marked dissimilarity, and they well reveal his powerful and individual mind. The first, on hypnotism and cerebral activity, really presents the interesting but somewhat miscellaneous notes of an experienced asylum superintendent who has devoted much attention to hypnotism; he refers to the good results he obtained in certain (not very common) cases in which insanity occurs in persons of marked but repressed intellectual activity: in such cases it is not rest, but a wholesome channel for mental energy which is needed; and he describes some half-dozen cases in which, by judicious intellectual sympathy and counsel, he has transformed patients not only into sane, but even valuable and influential members of society. The advocacy of such treatment must, however, usually be a counsel of perfection, for not many alienists possess Forel's wide intellectual culture. A further note is made of a practical application of hypnotism which Forel has found useful. When a patient shows suicidal tendencies, he hypnotises the attendant with the suggestion only to wake when the patient moves. This is found quite effective, and the attendant is spared much fatigue; the practice has been continued by Prof. Bleuler, Forel's successor at Burghölzli. Forel's second lecture is devoted to the other subject with which his name is associated—the biology of ants; he here describes at length many of the manners and customs of ants which he has himself observed in many parts of the world.

All psychologists and alienists will unite in congratulating Clark University on the success of its decennial celebration, and in hoping that the remarkable results of these early years will be continued and extended in the future.

The Stimulating Influence of Alcohol without Ingestion. (*Comptes rendus, Soc. de Biologie*, Paris, Oct. 13th, 1900.) FÉRÉ.

It is generally agreed that, when taken habitually, alcohol has a depressing influence on the amount of work executed, while there is

some evidence to show that, at all events in a state of fatigue, the immediate effect of alcohol may be to increase the amount of work. Some recent experiments by Féré with the ergograph show that when alcohol is retained in the mouth during muscular work (and subsequently rejected), the effect on work is more favourable than when it is swallowed. The amount held in the mouth was 20 c.c. of absolute alcohol and water in equal parts. It was invariably found that when the mixture was immediately swallowed there was little or no increase in the amount of work accomplished, but when held in the mouth the increase was notable. When introduced into the stomach by a sound the amount of work was even below normal; this may, however, be due to the unpleasant nature of the proceeding. These results indicate that the stimulating effect of alcohol on work is mainly, if not exclusively, due to its influence as a sensorial stimulant. This was further shown by another series of experiments with fragrant alcoholic essences, when the increase of work was still more marked. "Those who seek forgetfulness," Féré concludes, "unconsciousness, paralysis, with all the personal and hereditary results of intoxication, must drink; those who only seek a brief stimulation may be content to taste. At the same time," he cautiously adds, "it must not be taken for granted that the use of alcohol as a sensory stimulant is necessarily harmless."

At a subsequent meeting of the Biological Society (November 3rd, 1900) Féré presented the results of similar experiments with various spices, *i. e.*, the essences of clove, cinnamon, lemon, etc. The various series of experiments with each substance were made in a careful and uniform manner, the first series without any stimulation, the second by inhalation, the third with the essence placed on the tongue, the fourth with both combined, the fifth without any stimulation. The increase with inhalation was small but constant, with taste it was still higher, with both sources of stimulation combined it was very much higher; indeed, on one occasion, in the case of lemon, the increase was absolutely colossal, being, when compared with the first series, as 2000 to 40, or (in kilogrammetres of work accomplished) as 85 to 4. Exhaustion follows, and the last series is always lower than the first. This stimulation was exerted not only on motility, but also on sensibility and general excitability. Thus visual acuity is increased, as also is neuro-muscular electric excitability.

HAVELOCK ELLIS.

Den Kroniske Alcoholismes: Kliniske Former, Forelaesning ved den Psykiatriske Klinik paa Gaustad Asyl vaaren 1898, *af Hans Evensen, Reservelaege* (*The Clinical Forms of Chronic Alcoholism: a Lecture at the Clinique of the Asylum at Gaustad during* 1898). HANS EVENSEN, Assistant Physician. Christiania, 1899.

Before detailing the observations which he has made in the asylum at Gau tad, Dr. Evensen patriotically explains that Norway is one of the soberest countries in Europe, consuming no more than $1\frac{3}{4}$ litres of alcohol per head. There is no doubt that since the introduction

of the Gothenburg system drunkenness has much diminished in Norway, yet insanity is increasing. Dr. Evensen finds that mental disturbance and bodily disease are more frequent causes of insanity than strong drink. This he illustrates by the following table, which he has compiled from statistics collected during the ten years between 1886 and 1895:

—	Both sexes.		Men only.	
	Contributive cause.	Only cause.	Contributive cause.	Only cause.
Hereditary disposition .	48·1	31·9	45·6	33·3
Psychical causes . .	28·8	18·9	23·3	15·5
Bodily diseases . .	19·7	14·4	20·9	15·4
Drink	7·7	5·4	14·5	10·1

Dr. Krafft-Ebing estimates the potency of alcoholic excess as a cause of insanity at 28 per cent.

Dr. Evensen finds that alcoholism is often not the result of hereditary degeneration; alcoholic psychoses are often seen without any assigned hereditary transmission. In the statistics of ten years there were 530 cases of alcoholic insanity, or 22 per cent., without heredity, which was only found in 72 cases, or 5·4 per cent. He considers alcoholism a proof of moral degeneracy; certainly in the end it always becomes accompanied by such. Amongst the principal mental symptoms are great excitability and suggestability. Dr. Evensen divides alcoholic psychoses into six classes, which he illustrates by describing sixteen clinical cases in detail. But little space is given to the treatment. He gives several genealogies in which an hereditary neurosis is traced. The most complete of these pedigrees comprises five generations. A man, apparently healthy, married a woman who was insane. In the second generation there were fourteen members, in the third twenty-seven, and in the fourth fifty-two. Among these there was a large proportion of members degenerate, peculiar, hysterical, epileptic, insane, drunken, or suicidal; but in the fifth generation only two families are recorded, one of seven and the other of four, all of whom were sane and normal. Thus the family seems to have got rid of the ancestral taint. Dr. Evensen's study shows both skill and diligence, and gives the earnest of future work. W. W. IRELAND.

Versuch einer systematischen Methodik der mikroskopisch-anatomischen und anthropologischen Untersuchung des Centralnervensystems; von Dr. G. C. Van Walsem, Iitem Arzt an der Anstalt "Meerenberg" (*An Essay on the Systematic Methods for the Microscopic Anatomical and Anthropological Examination of the Nervous System*). Amsterdam, 1899, pp. 183, royal 8vo.

In this treatise Dr. Van Walsem goes through, with an even and vigilant pace, all the known methods of examining the brain and spinal

cord. He begins by showing how to observe the appearances of the skull, then how to remove the brain and spinal cord, and explains the various devices for ascertaining the specific gravity of the encephalon and hardening the brain for further study. We have then information about the different processes of macrotomy and microtomy, and the dyeing of the tissues and making microscopic examinations. The value and clearness of the book is much increased by thirty woodcuts in the text and eight pages of lithographs, some of which represent the inside of the skull, sections of the hemispheres, cerebellum, and spinal cord, as well as microscopical preparations. The author has had recourse to many contributions in different European languages towards special research, which, added to his own experience, has enabled him to produce a laborious and useful work. We can recommend this book as a complete guide to pathological researches on the nervous system.

W. W. IRELAND.

Guia para el Examen Clinico y Tratamiento de los Niños Enfermos, por John Thomson, vertidada al Castellano, por H. Rodriguez Pinilla, Doctor en Medicina, etc. (*Spanish Translation of Guide to the Clinical Examination and Treatment of Sick Children*). By JOHN THOMSON, M.D. Madrid, 1900.

It seems to us a piece of simplicity when a new author inscribes on his title-page "The right of translation is reserved." For a medical work at least very few copies are lost by its being done into another language. Indeed, this is more likely to help the sale of the original edition. A compliment of this kind has been just paid to Dr. John Thomson's book reviewed in the number of the JOURNAL for January, 1899. In a prologue the translator, Dr. Pinilla, appositely remarks that there is a considerable difference between the symptoms of disease in the child and in the adult; for example, a rise of temperature to 40° in a grown-up person indicates a morbid process of importance; but such a change in a child, either in the commencement or middle of an illness, is a phenomenon which is frequent and of little gravity. The same may be said of vomiting and of convulsions and other symptoms in different ages. "Pediatrics," observes the Spanish physician, "may be said to constitute a speciality, but it is one which calls into play a knowledge of all medicine." The translation seems to us to be correct, and the printing is clear; but the numerous engravings have been marred by the paper used not being of the kind suitable for the process blocks. Dr. Thomson's work is also being translated into Italian.

W. W. IRELAND.

Lectures on Medical Jurisprudence and Toxicology, as delivered at the London Hospital. By F. J. SMITH, M.D., F.R.C.P. J. and A. Churchill, London, 1900. Large 8vo, pp. 382.

English judges are fortunate in the thorough education of medical men in forensic medicine, as is shown by the searching "questions

from examination papers" annexed to these excellent lectures, which omit nothing essential from consideration. The author's standpoint is made clear in the title, which is not forensic medicine, but medical jurisprudence. Thirty-one pages are devoted to the consideration of lunacy questions, and it is well pointed out that the law "takes no notice of our endeavours to call lunacy a disease of the brain." We know that insanity is caused by such a disorder, and that it is often curable, *e. g.*, in cases of puerperal insanity. The safety of society is the first concern of the law.

The certification of the insane and testamentary capacity are treated in a broad-minded spirit, and the results will be as useful to the student as the other parts of this practical manual, although the elastic phrases of the law—disposing mind, etc.—may have widely varying interpretations.

We have to regret that *partial insanity* is not yet recognised before the law courts, and the difficulties in these circumstances are so great that the author impresses on his readers a humorously wise piece of advice: "When by any possibility you can avoid being brought into a legal lunacy case, accept that possibility, and keep out of it."

Asthma: Recent Developments in its Treatment. By Dr. E. KINGSCOTE. Published by Glaisher, London, 1899. Pp. 183. Price 5*s*.

This book is mainly a treatise on spasmodic asthma and its treatment. The author claims to have been entirely successful in curing 100 cases, in every one of which he found dilatation of the heart. When this was cured the asthma disappeared. He does not, however, say that the heart condition is the only cause of asthma, but attributes it to interference with the functions of the vagus. The dilated heart causes this by pressure. He, however, does not apparently exclude other possible causes of such interference. In the insane one frequently comes across cases where the vagus is decidedly diseased, and its functions interfered with, notably in general paralytics. But, so far as common experience in asylums goes, asthma is exceedingly rare in general paralytics. Cardiac lesions with dilatation are, however, more than usually common with them. It is therefore difficult to understand how, in the presence both of toxic elements which affect all the nerves, including, of course, the vagus, and of, in many cases, cardiac dilatation, there should be so few cases of asthma amongst general paralytics. It may be that the poison is not an irritant, but a depressant, not tending to produce spasmodic contraction of the bronchial muscles. Be that as it may, further experience seems desirable before accepting unreservedly the author's conclusions.

The Morals of Suicide. By the Rev. J. GURNHILL, B.A., Scholar and Moral Science Prizeman of Emmanuel College, Cambridge. London: Longmans, Green, and Co., 1900. Pp. 223. Price 6*s*.

This book deals with the subject of suicide from the standpoint of a "Christian socialist," regarding it as "a symptom of the sin and misery

which is seething beneath the surface of society in all its classes." In a brief and rather sketchy way some of the views of Schopenhauer, Morselli, and the Materialistic School are examined, and considered to fall short as a statement of the data bearing on suicide. In place of them there is put forward the doctrine of Christian psychology and personality, by which is meant that in man there is, in addition to body and mind as ordinarily understood, a psyche or soul, which is in some mysterious manner the direct offspring of the great creative Spirit of the universe. The causes of suicide are accordingly classified as disorders or diseases (1) of the body, (2) of the mind, (3) of the soul, and (4) of the social estate. Under the third class are included alcoholism, debauchery, crime, etc.,—the conditions which, from the spiritual point of view, are grouped as "sin;" and this class is, therefore, the most important in regard to frequency. The deduction is drawn that the tendency to suicide is to be combated by Christian therapeutics, by inculcating and trying to secure a higher form of morality and self-control—a duty in which the Church should take the leading part. The writer makes his classification of causes from the reports of 100 cases of suicide as they appeared in the newspapers, which is evidently a defective and untrustworthy way of arriving at statistics. The object of the book is commendable, and much of what is said in it will receive approval; but the subject is dealt with only from a single point of view, and its treatment consequently appears one-sided and imperfect.

The Boyle System of Ventilation; and *Natural and Artificial Methods of Ventilation.*

These books have been sent us by Robert Boyce and Son, Limited, and describe in detail the system of ventilation which has been perfected by the firm. That system is so well known to our readers that we do not think it necessary to enter into a discussion of its merits, but merely refer them to these volumes for information. As they are very fully illustrated, and raise every point of interest regarding the ventilation of buildings, sewers, etc., from the standpoint of natural *versus* forced ventilation, both books cannot fail to be of interest to those who have to arrange for a proper supply of fresh air to dwellings. Prices are quoted in great detail, and we have no doubt that the Company will supply copies to those requiring them. The address is 64, Holborn Viaduct, E.C.

Crime and Criminals. By J. SAUNDERSON CHRISTISON, M.D. Chicago, 1899.

This is a second edition of a book lately reviewed by us, with certain additions, especially an account of the Luetgert case. Luetgert was charged with the murder of his wife under peculiarly atrocious conditions. After ten months of legal procedure he was found guilty, but not sentenced to death. Dr. Christison's theory is that Mrs. Luetgert

was insane, and disappeared in consequence of her morbid condition, and that her husband is innocent of the charge brought against him. This case created a very great sensation in America, and Dr. Christison sets forth his beliefs in a manner which induces confidence in his correctness.

The Ophthalmic Patient. By PERCY FRIDENBERG, M.D. London: Macmillan and Co., Ltd., 1900. Crown 8vo, pp. 312. Price 6*s.* 6*d.* net.

This little work will be found useful to students and nurses who wish to become acquainted with the recent advances in the management of ophthalmic cases, especially those requiring operation. It is written in a clear and lucid manner, and is well worthy of a careful perusal.

Part III.—Epitome of Current Literature.

1. Anthropology.

On the Permanence of the Cranio-pharyngeal Canal in Man [*Sulla permanenza del canale cranio-faringeo nell' uomo*]. (*Riv. sperim. di Freniat., vol. xxvi, fasc. ii, iii.*) *Caselli, A.*

THIS canal brings the pharyngeal vault into relation with the cavity of the sella turcica. It is permanent in certain of the lower animals; in man rarely so. Rossi found it only on nine occasions in 3700 crania. The author examined the collection of skulls from the insane in the Psychiatric Institute of Reggio—1300 in number,—and found it in 12 cases, 9 being females and 3 males. Externally the foramen is situated from 1 to 2 mm. behind the posterior angle of the vomer, and internally opens into the lowest point of the depression of the sella turcica, generally in the middle line. The openings, which are usually circular, vary from 2½ mm. in diameter, and give passage to a vein. In 43 other skulls, there were openings corresponding in situation which communicated with the sphenoidal sinus. The author regards its relative frequency in the insane as another example of degeneracy.

J. R. GILMOUR.

Russian Criminals and Lombroso's Theory [*I criminali russi e la teoria di C. Lombroso*]. (*Arch. di Psichiat., vol. xxi, fasc. iv.*) *Mariani.*

This paper is a study by a pupil of Lombroso of a series of twenty-seven photographs (full-face) of Russian criminals, twenty-two males and seven females. Beyond the name of the criminal and the nature of the offience in each case, no information accompanied the photographs.

The author describes each photograph in detail, and discovers in all

a sufficient number of facial and cranial abnormalities to attach the originals to the "criminal type" of Lombroso. His conclusion that this type exists in Russian criminals is thus in contradiction to the opinion of Orchansky, who, though apparently a believer in the "reonato" in other countries, found that stigmata of degeneracy were not more frequent in Russian prisoners than in the free population.

The paper is illustrated by a plate reproducing six of the photographs.

W. C. SULLIVAN.

The Question of Genius [*La questione del genio*]. (*Il Manicomio, fasc. i*, 1900.) *Del Greco, F.*

Lombroso's theory of the dependence of genius on degeneracy has lately been the subject in Italy of renewed discussion, arising out of the studies of the Turin school on the physical and mental state of Giacomo Leopardi.

In this paper Del Greco contributes to the debate a critical study of the scope and limitations of the anthropological method in the investigation of genius. While sympathetically disposed towards Lombroso's views, he pleads for the adoption of a broader standpoint, for the admission as essential of other methods beside the purely anthropological, and for the recognition of the complex nature of the problems involved. Granting that the facts cited by Patrizi, Sergi, and Lombroso prove that Leopardi was in physique, mind, and temperament a degenerate, and supposing that a large number of men of genius resembled the pessimist poet in these respects, the interpretation of the connection of genius and degeneracy cannot follow directly. The problem must be examined from the *biological* side, when it must be asked whether genius implies phenomena of excessive organic development, and, if so, how far it may be expected that such progressive changes should be accompanied by compensatory defects in the development of other organs. Again, the question must be viewed from the *psychological* side when we have to investigate in what manner and degree the degenerate conditions contribute to the genesis of the mental states involved in genius. Only when the method of Lombroso is associated with inquiry on the biological and psychological lines can it yield sound results. Further, it must be borne in mind that even if proved to be closely connected with degenerate and morbid conditions, genius is not thereby stamped as in itself pathological. A phenomenon not *per se* prejudicial to the organism in which it occurs need not be morbid because it depends on morbid antecedents. Much of the confusion in this and other questions has arisen from the erroneous conception of an opposition in kind between the normal and the pathological.

W. C. SULLIVAN.

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2. Neurology.

The Perinuclear Zone in the Nerve-cell [*La zona perinucleare nella cellula nervosa*]. (*Ann. di Neurol., fasc. ii*, 1900.) *Colucci, C.*

Donaggio, in a recent work, drew attention to a zone surrounding the nucleus in the nerve-cell. It did not stain, and he considers it a part

of the canalicular system for the nourishment of the cell and nucleus. In this paper Colucci draws attention to the fact that he has previously described a similar condition as the perinuclear "halo." While the histological fact of its presence may now be taken as proved, he is not altogether prepared to accept Donaggio's conclusions as regards its function without further investigation. J. R. GILMOUR.

On the Functional Relations of the Pituitary Gland with the Thyro-parathyroid Apparatus [*Sui rapporti funzionali della glandola pituitaria coll' apparecchio tiro-paratiroideo*]. (*Riv. sperim. di Freniat., vol. xxvi, fasc. ii, iii.*) *Caselli, A.*

This is an experimental research in which the glands were removed in various combinations, and the effects noted. In the first series of cases, where the pituitary and parathyroids were removed at the same time, the animals so treated died in from three to four days, without developing the usual symptoms of tetany. As the author could not exclude the possibility of a fifth parathyroid being present in these cases, in the second series he removed the parathyroids, and after tetany had developed he performed hypophysectomy. This series demonstrated that the removal of the pituitary modified profoundly the symptoms resulting from the parathyroidectomy. Within four hours the tetany, the tachycardia, and the tachypnœa had ceased. A day after, paralysis of the limbs set in, followed by coma and death two days later. In the next set of cases, where the thyroids were removed after the pituitary, it was found that this resulted in an aggravation of the usual symptoms after thyroidectomy, without alteration of the characteristic symptoms, but with acceleration of their course. The fact that extirpation of the pituitary acts in a similar way to the removal of the thyroid in animals deprived of the parathyroids seems to show an identity of function and a strict relationship between these two glands.
J. R. GILMOUR.

Relation between Epileptic Fits and Auto-intoxication [*Rapporto tra accessi epilettici ed auto-intossicazione*]. (*Arch. di Psichiat., vol. xxi, fasc. vi.*) *Roncoroni, L.*

The author discusses the published researches on the toxicity of the urine, blood, sweat, and gastric juice in epileptics; and contributes a record of personal observations regarding the toxicity of the urine.

The results of different workers on this subject have been very discordant. Féré and d'Abundo found the toxicity of the urine diminished after a fit; Voisin and Petit found it increased after and diminished before the fit; Chiaruttini found it increased immediately before and after, as well as during the attack, but normal in the intervallary period; while Mairet and Vires found constant hypotoxicity in their patients, and Agostini constant hypertoxicity in his. Deny and Chouppe, Tamburini and Vassale, Bleile and Herter, in their experiments got inconstant results. Investigations into the toxicity of the other fluids have been equally unsatisfactory. Those observers who assert the hypertoxicity of the fluids in epileptics are unable to assign it to any particular constituent or constituents.

The author indicates the sources of fallacy, some of which are

inevitable, in the available methods of measuring toxicity. His own researches were made with urine obtained from fifteen male epileptics, control experiments being made with urine from five normal subjects. The procedure was to inject into the peritoneum of an animal (rabbit or guinea-pig) a quantity of the urine equivalent to 5 *per cent.* of the animal's body-weight. The urine was freshly passed, of acid reaction; before injection it was filtered, and brought to the temperature of the animal. The intra-peritoneal injections were controlled by multiple subcutaneous injections. In each case, at least two animals of the same species were injected, and when the results were positive, the experiment was repeated with at least two more. Special attention was given to the urine passed immediately after a fit.

The results—which are given in detail for each case—were very inconstant. The amount of reaction, after intra-peritoneal injection, varied from slight depression to death, not only in the different cases, but also in experiments with the same urine, suggesting that the gravity of the phenomena depended more on the individual disposition of the animal than on the degree of toxicity of the urine. Fall of temperature, lassitude, tremors, and paresis were the symptoms chiefly noted; convulsions did not occur. Nothing distinctive in character or degree was observed in the action of the urine passed immediately after a fit; it did not constantly cause death or grave symptoms. On the other hand, death ensued in one case after injection of urine from a normal subject.

The author concludes that the present means of investigation are inadequate to determine whether the urine of epileptics possesses special toxic properties. His view is that, at most, auto-intoxication can only be regarded as one of many exciting causes of epileptic fits in predisposed subjects. W. C. SULLIVAN.

A Case of Porencephaly [*Un caso di poroencefalia*]. (*Riv. di Pat. Nerv. e Ment., May*, 1900.) *Deganello, U.*

The specimen, which is of interest from the very marked extent of the lesion, was obtained from a dog. On opening the dura it was seen that practically the whole of the left cerebral hemisphere was destroyed. The cavity was limited on its median aspect by a very thin layer of nervous tissue (1 mm.), also inferiorly and posteriorly by similar layers. The rest of the cavity was bounded by the dura mater. The other conditions noted were almost complete absence of the pyramidal tracts in the cerebral peduncle in the pons and medulla of the left side, marked aplasia of the sensory tracts in the same regions, and aplasia of Goll's and Burdach's nuclei on the right side. There was atrophy of the anterior corpora quadrigemina on the left side, and of the right optic nerve. There was no degeneration in any portion of the cerebro-spinal axis. From the absence of degenerated tracts, the porencephaly must have developed very early in intra-uterine life before the cylinder processes had been formed. J. R. GILMOUR.

3. Physiological Psychology.

Vacher: a Psycho-physiological, Medico-legal, and Anatomical Study [*Etude psycho-physiologique, médico-légale, et anatomique sur Vacher*]. (*Bull. de la Soc. d'Anthropol. de Paris, fasc. v*, 1899.) *Laborde, Manouvrier, Papillault, et Gellé.*

This study, as careful and complete as was possible under the circumstances, was made in the Paris Laboratory of Anthropology, and deals with Vacher, whose crimes, resembling those of "Jack the Ripper" in England, attracted much attention, and ultimately led to his execution. By Professor Lacassagne and other experts he was considered sane and responsible. The present highly competent investigation throws doubt on that conclusion, and is well worth attention. Though very incomplete, it furnishes a model which we should do well to follow in our own country; the prime requirement seems to be scientific zeal. This study of Vacher was only rendered possible by very great persistence and much co-operation. Although there appears to be no official prohibition in the way of such inquiries (in this case the family of the criminal desired the investigation), neither is there any official encouragement; Vacher's remains were scattered in all directions; only portions could be obtained. The left side of the brain alone was obtained for study; as, however, the head was also obtained, there was a fair amount of material. The study is well illustrated.

Vacher was born in 1869 at Beaufort (Isère), and belonged to a large and honest family, cultivators of the soil. The ancestry appeared to be quite healthy, but it was subsequently learnt that the father, at the age of forty, and before Vacher's birth, had suffered from a prolonged fever, during which he had to be strapped down; it was also found that another very near relation suffers from mental attacks, during which he quits his work suddenly and runs at random, shouting and singing. Vacher does not appear to have suffered from any serious early illness, but from childhood he is described as sulky, disobedient, unsociable, and later incapable of work. At the age of eighteen he was placed in a monastery as a postulant; two years later he was sent away, having made attempts to commit unnatural offences on his comrades, attempts which he renewed on a child. A little later we find him in the hospital with a venereal disorder. In 1890 began his period of military service. At this time definite mental symptoms appeared; he obtained the grade of sergeant, but he was feared by all under him, and was liable to attacks of extremely violent conduct. In 1891 he was placed in the infirmary for observation, as being subject to "gloomy ideas, with delusions of persecution;" there was also a certain incoherence in his language. He was sent shortly after to the hospital with a diagnosis of "mental troubles." This rather vague diagnosis is here interpreted more precisely as "melancholia, with ideas of persecution, impulses of violence, and erotomania." Nor were associated impulses to homicide and suicide absent, for when sent away as convalescent, he went to join a young woman whom he was to marry. She, however, would now have nothing to do with him; whereupon he fired at her with

a revolver, and then attempted to kill himself. The girl's wound was slight, his own serious, for two balls were left in his head, producing inflammation of the inner ear, deafness, and facial paralysis on one side. It is suggested that hereby his mental troubles were complicated by hallucinations of hearing. However that may be, having again been put under observation in an asylum, he was finally dismissed from the army on account of "mental troubles." Up to this point there is no question as to Vacher's insanity. Lacassagne, however, and the officially appointed experts who reported on the case, believe that he left the asylum sane, and that he was fully responsible for his subsequent acts. This conclusion is attacked with much point and vigour by Professor Laborde.

Now began the series of crimes—at least eleven in number—with which Vacher's name is associated. They all have the same stereotyped character, and are marked by premeditation and system. He selected a young shepherd or shepherdess (sex apparently made little or no difference) in an isolated spot, and strangled the victim, then cutting the throat; next he proceeded to disembowelling, and to removal of breasts or testes; finally struck the victim at random, and (unless ejaculation had already taken place) violated the corpse, usually *contra naturam*. He would bring with him a change of clothes, and putting them on he would leave the spot with much rapidity and go so long a distance (he had a powerful muscular system) that identification became impossible. He maintained that he was "executing the orders of God, who had sent him on earth to punish men for their crimes." He even asserted that he was moved by a sudden and irresistible impulse, a rage for blood. Finally, having been caught, and the official experts declaring that he was completely responsible for his actions, Vacher was executed.

His brain came into the hands of Dr. Toulouse, who cut up the right hemisphere for histological purposes, and put the left into a powerful preservative solution, then inviting Professor Manouvrier to examine it. According to the report of the latter, it was no longer possible to form an exact estimate of the weight of the brain, but this was clearly over the average, and the fissures were also deep; it must be remembered, however, that Vacher was well developed generally. There were no signs of adherence of the pia mater. A few variations in the fissures and convolutions are noted, but not of an excessively rare character; it would be quite fanciful, Manouvrier declares, to regard them as stigmata of degenerescence.

The histological investigation of the right hemisphere—confided by Dr. Toulouse to various competent hands—has not yet been published.

Dr. Papillault reports concerning the head that it is that of a man with a powerful osseous and muscular system. The hair, brown and coarse, is implanted in a singularly thick scalp; the eyebrows are thick, and meet in the middle line; the beard is also thick; the head is brachycephalic, and fairly symmetrical. The bi-mastoid breadth is very considerable, testifying to the development of the muscular system. There is slight prognathism, and the ear is ill-formed. On the whole Papillault concludes, though the head is morphologically somewhat

below the average, it presents no character that can be strictly termed abnormal.

The results of this investigation, it will thus be seen, are so far negative, though it is unnecessary to add that, in such competent hands, a negative result is as instructive as a positive result.

A not unfamiliar word may be suggested by the controversy over Vacher's "responsibility." Lacassagne affirms his "responsibility," Laborde denies it, Manouvrier incidentally states that such a question is insoluble. Sooner or later we shall have to recognise that the question of responsibility is a purely academical question, and that a medical expert who allows himself to be drawn into its consideration is scarcely contributing to the dignity of medical science. The question of "responsibility" should not be allowed to have any bearing on the practical question of the best method of dealing with a criminal. It is reasonable to regard the interests of the criminal, and it is reasonable to regard the interests of society; but it is unreasonable to introduce any metaphysical conundrums. HAVELOCK ELLIS.

Mental Fatigue. (*Psych. Rev., Sept.*, 1900.) *Thorndike, E.*

Dr. Thorndike, having found reason to think that there is much confusion and obscurity in the current notions of "mental fatigue," has initiated a series of experiments with the object of helping to clear up the matter, and in this first paper publishes some of his results. Usually, he remarks, we think of mental work in terms of mechanics; the mind is supposed to lose its power to work as a rubber ball loses its power to bounce, and sleep is supposed to recharge the mind with energy, the important corollary being that during work we are constantly and progressively exhausting ourselves. He finds reason to believe that this is not the case, but that the curve of mental work may continue for eight hours with no drop whatever, and then show a sudden drop—due, perhaps, to by-products of mental work.

The experiments were carried out on himself, on a woman college senior, a youth of sixteen, and a little girl of eleven. The tests were mental arithmetic, sums in addition, etc. It was sought to find how such tests differ when carried out on the mornings and evenings of days devoted to prolonged mental work of another kind, and also to ascertain how the same tests were carried out when prolonged.

All the data obtained indicated that mental fatigue does not occur in regular proportion to the work done, though the evening tasks, executed with a strong feeling of repulsion, were somewhat more liable to show mistakes than the morning tests. Much mental work can be done before there is any change in ability to work. Not only were the evening results only slightly more faulty, but they were often more rapidly obtained. Mental fatigue, then, seems to be a very complex affair, not a simple loss of mental energy, but a name standing for a great number of mental and physical conditions; we have to resolve it into its elements and study each by itself. A second conclusion is that there is no pure feeling of general mental incompetency. This is, of course, merely a result of introspection, but confirms the previou conclusion as to the complex nature of mental fatigue. A third

conclusion is that the feelings of fatigue, such as they are, are not measures of mental inability. Kraepelin had already found that we can be mentally fatigued without feeling so. Thorndike wishes to emphasise that we can *feel* mentally fatigue without being so, the sign to stop work coming before there is any measurable evidence that ability to work is decreasing. The relation between the fact and the feeling of fatigue is thus very involved; and while it may be that we have to regard the feeling of fatigue as a beneficent warning, it may also be due merely to a lack of desire to work. HAVELOCK ELLIS.

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4. Ætiology of Insanity.

Relation of Syphilis to Organic Brain Disease and Insanity. (*Arch. of Neurol., London County Asylums*, 1899.) *Mott, F. W.*

It is with very great pleasure and satisfaction that the alienists of this country will welcome the *Archives of Neurology* of the Pathological Laboratory at Claybury, and they will similarly welcome the promise of an annual publication of the work done in that laboratory.

The whole volume shows that the Claybury pathologist and his assistants have commenced their work by a vigorous study of causes of insanity. They have begun upon what Möbius would call the exogenous causes, and have at present limited themselves to the study of syphilis in the insane.

The article at present under review is divided into two sections. The first deals with "brain syphilis in hospital and asylum practice," with notes of sixty cases and twenty-three asylum post-mortem examinations. The second is devoted to "observations on the ætiology and pathology of general paralysis."

We take it that the first part forms a preliminary study of brain syphilis generally. We have failed to find much in this paper which can be regarded as original; indeed, the paper is more of the nature of a critical digest, syphilitic brain disease being discussed under the usual headings of basic meningitis, meningitis of the convexity, cerebro-spinal meningitis, arteritis and neoplastic formations (gummata), encephalitis.

We must agree entirely with Dr. Mott's symptomatology of these conditions so far as physical signs are included, but we cannot agree that there are any mental symptoms which can be regarded as characteristic or even suggestive of brain syphilis. We learn, for instance, that "recurrent attacks of drowsiness, stupor, and coma should always make one suspect basic meningitis." This may be true of recurrent coma; but recurrent stupor is most common in the endogenous cases of insanity. Again, we cannot accept that there is of necessity even a suggestion of syphilis because "there is weakness of memory, slowness of thought and action, loss of will power, often a stolid indifference, with a tendency to causeless outbursts of passions, even of cheerfulness and mirth." These symptoms are not even characteristic of a toxic condition.

We must, however, agree with the author when he states that mercury should be exhibited whenever the physical signs suggest a

syphilitic origin of the disease. Mercury may not cure the disease, but it will arrest its progress (we exclude general paralysis here).

The Superintendents of County Asylums will be in sympathy with Dr. Mott's complaint, which is not as strong as it might be, that much difficulty arises from the mode in which a patient is transferred from his home to the infirmary and from the infirmary to the asylum. This makes it extremely difficult to obtain a history of the case, and consequently to treat the patient to the greatest possible advantage.

W. H. B. STODDART.

Observations upon the Ætiology and Pathology of General Paralysis. (*Arch. of Neurol., Lond. County Asylums*, 1899.) *Mott, F. W.*

Dr. Mott in this paper asks two questions: What part does syphilis play in the pathology of general paralysis? What is the pathology of the morbid process underlying this terrible disease?

Although the dictum of Krafft-Ebing that *general paralysis is a product of civilisation and syphilisation* is becoming more recognised abroad, only some authorities recognise it in this country. Dr. Mott does not consider the dictum "no syphilis, no general paralysis," held by some, proven; but sums up strongly in favour of the very important *rôle* syphilis plays in relation to this malady. He, however, leaves his readers to form their own conclusions after studying the evidence he brings forward. His chief arguments are—

(1) General paralysis is unknown where syphilis is unknown.

(2) In the rural districts of Ireland and Sweden, where alcoholism is common but syphilis rare, general paralysis is either extremely rare or unknown.

(3) Priests, Quakers, and clergymen are seldom affected with general paralysis, and syphilis is also correspondingly rare.

(4) In rural districts general paralysis is uncommon, likewise syphilis. Both become more common as large towns are approached, where probably the other factor, mental stress and the struggle for existence, is also greater.

(5) Syphilis affects all classes of males from peer to artisan, likewise general paralysis, but it is common only amongst the lower classes of women, and diminishes as the station of life rises until it becomes very rare among the upper classes; so also general paralysis. Examples have occurred of married couples with syphilis developing general paralysis.

(6) In proportion to the reliability with which histories can be taken, so authorities are more definite as to the importance of syphilis in the production of this disease.

(7) Dr. Mott next disposes of the view that, because syphilitic residua are only found in a certain proportion of cases, tertiary lesions being uncommon, and antisyphilitic remedies fail to afford relief, therefore *syphilis cannot be the cause of the disease.*

(8) General paralysis is generally admitted to be due less to heredity than other forms of insanity. It is, in his opinion, an *organic brain disease with mental symptoms.*

(9) A history of syphilitic infection may not be obtained even where

definite syphilitic residua exist. Crocker found that, in at least 20 *per cent.* of obvious syphilitic skin diseases, there was no history of infection; therefore to say that general paralysis or tabes cannot be due to syphilis, unless in every case a history of infection can be obtained, is absurd.

(10) Dr. Simpson, of the West Riding Asylum, contends that syphilis cannot be a factor in the production of this disease because of the rarity of recent infection or secondary rashes. Dr. Mott, however, on this point is in agreement with Krafft-Ebing, that, on the contrary, this is really in favour of the presence of syphilis; for, considering the promiscuous sexual life early general paralytics lead, the absence of recent syphilis points to immunity by previously acquired or inherited infection. He quotes Krafft-Ebing's negative inoculation with syphilitic virus of eight general paralytics.

(11) Oppenheim regards the above experiment as a crucial test, and states that people without syphilis, but who are the subjects of mental stress, excitement, and excesses *in Baccho et Venere*, are liable to develop neurasthenia; the syphilitic neurasthenic, however, is liable to dementia paralytica. This seems to be the correct explanation of the process; *it is the outcome of stress and syphilis.*

(12) Perhaps the most conclusive argument in favour of syphilis results from the study of twenty-two cases of juvenile general paralysis (*vide* 'Journ. of Ment. Sc.,' 1901, p. 170).

Dr. Mott then discusses the association of general paralysis with tabes, maintaining the dictum of the unity of the affections.

Another important factor is mental activity and stress in the struggle for existence among those who toil with their brains rather than with their hands. The striving, ambitious, sexually excitable, town-bred individual suffering with brain fag is especially liable to develop general paralysis if he has been infected by syphilis, and possibly it may develop after influenza. That mental stress does play an important part finds anatomical proof in the greater wasting of the hemisphere which is most used.

Sexual excesses and masturbation lead to asthenia, partly by violent emotions and exhaustion of the nervous system; but it may be also by the loss of important complex chemical compounds, depriving the nervous system of some substance essential for its metabolism.

Alcohol, Dr. Mott thinks, is a most powerful agent in assisting the toxic influence of syphilis, and its abuse in the early stages of the disease accelerates the progress of the malady.

The next part of the paper discusses the pathology of general paralysis. In Dr. Mott's opinion, brain atrophy, independent of coarse vascular lesion, is by far the most striking objective phenomenon in general paralysis; it especially affects the frontal and central regions, and spares, as a rule, the occipital and temporal lobes. On carefully weighing, after draining, the two hemispheres and comparing their weights, among other results he finds that the proportion of cases of the right hemisphere exceeding in weight that of the left is more than double that of the non-general paralytic cases; and if the juvenile general paralytic cases and the left-handed person be added, the percentage in which the comparative diminished weight of the hemisphere which is

most used in speech and all special manual operations is raised to 71 per cent.

Dr. Mott had previously shown that there was evidence to prove that when nervous tissue underwent degeneration, protagon or lecithin broke up into cholin, glycero-phosphoric acid, and stearic acid. Investigation shows that this is true of general paralysis, and he assumes that there is in this malady an escape of cholin into the cerebro-spinal fluid and blood. Cholin is a toxic substance, but not very powerful; it produces a fall in the blood-pressure, partly by slowing the heart's action, but mainly by paralysing the peripheral neuro-muscular mechanism of the splanchnic arterial system. The cerebro-spinal fluid also contains nucleo-proteid. The existence of these two bodies in the cerebro-spinal fluid might tend to produce stasis in the veins of the brain, especially those opening into the longitudinal sinus, in which the blood flows contrary to gravity. It is possible for nucleo-proteid, in contact with the wall of the veins, to produce a tendency to coagulation or stasis, because, if experimentally injected into the circulation, it produces instant coagulation. The cellular proliferation and leucocyte accumulation in the lymphatic sheaths is always more marked where the cellular degeneration is most profound and recent, and it is possible that this inflammation is due to irritation produced by the products of degeneration. The part of the brain which usually exhibits thickening and opacity of the lepto-meninges coincided more closely with the distribution of the veins opening into the longitudinal sinus than with the distribution of the internal carotid artery. There are two reasons for this—two conditions which mutually interact upon one another in the establishment of a vicious circle, viz., degenerating nerve structures, the products of which accumulate and irritate the perivascular lymphatics surrounding the veins, causing a tendency to stasis and inflammation combined with conditions which produce mechanical congestion of the veins; and this reacting back on the nerve structures leads to still further disintegration of nervous tissue: thus the one vicious condition feeds the other.

Œdema of the brain is a striking feature in general paralysis, which must be associated with arterial anæmia, for the brain being contained in a closed cavity, the amount of arterial blood is proportional in a measure to the space occupied by venous blood.

Dr. Mott indicates in his paper his reasons for supposing that *the disease is a primary degeneration of the neuron*, with secondary inflammatory changes; in other words, a parenchymatous degeneration due to a loss of durability of the nerve-cell—a premature decay of tissue in which inherited and acquired conditions take part, with the result that progressive death of the latest and most highly developed nervous structures ensues as soon as their initial energy is unable to cope with the antagonistic influences of environment.

This by no means even touches upon many important considerations, the result of Dr. Mott's investigation of this disease. He goes on to state facts of great interest regarding status epilepticus and blood-pressure, also changes in cardiac and striated muscle.

J. R. Lord.

Syphilis in General Paralysis of the Insane. (*Arch. of Neur., Lond. Co. Asylums*, 1899.) *Lewis, H. W.*

Two hundred consecutive admissions into Claybury Asylum were the subject of inquiry, and some evidence of venereal infection was found in seventy-one instances. Out of these two hundred cases twenty-three were general paralytics, and of these sixteen presented absolute evidence of syphilis, four cases were doubtful, and in three cases there was no evidence of this malady. He presents their cases in full, and also a tabulated analysis of their symptoms, which fully justify not only the diagnosis of general paralysis, but also Dr. Lewis's estimate of the syphilitic factor. Among many important facts he notes that out of twenty-three cases twelve had hereditary taint, sixteen were town-bred, five had a history of gonorrhœa, and only two cases were habitual drunkards, while fifteen were distinctly abstemious. He points out a useful fact in the diagnosis between general paralysis and alcoholic insanity, often very difficult, but helped by remembering the rarity of a history of drunkenness in the former. A history of head injury occurred in seven cases, sufficiently frequent to point out its importance as an exciting cause. This is best shown in two of the cases recorded, where the disease ran an exceptionally rapid course, and started very definitely from head injury.

J. R. LORD.

Heredity and Alcoholism [*Eredità ed alcoolismo*]. (*Ann. di Nevrol., fasc.* i, 1900.) *Lui, A.*

The author has made his observations on 1500 patients admitted during a period of five years to the provincial asylum of Brescia. In that province alcoholism is very rife, alcoholic insanity ranking third amongst the clinical forms of mental disease.

The points specially considered were—(1) With what frequency does alcoholism develop on an hereditary morbid condition, and what is the nature of that condition? (2) What are the characters of alcoholism in cases with hereditary taint as compared with others? (3) What are the morbid results of parental alcoholism on the offspring? Regarding the first point, the author found hereditary taint in 57 *per cent.* of the alcoholic insane; in three fifths the transmission was direct, in two fifths indirect; transmission through the father was more frequent than through the mother. All forms of nervous disease were found in the alcoholic ancestry; parental intemperance was noted in 25 per cent. of the cases.

On the second question the author finds, in agreement with Legrain, that alcoholism in subjects with neuropathic ancestry gives rise to graver and earlier mental disorder.

With regard to the third point—the influence of parental alcoholism on the offspring—the author notes that 12 per cent. of the total admissions to the asylum were the children of alcoholic parents; and further, that this influence was most evident in insanities of the degenerate type, where it occurred in 20 per cent. of all cases, in 24 per cent. of idiots and imbeciles, and in 12 per cent. of epileptics.

A table shows summarily the neuropathic conditions present in thirty alcoholic families traced through three generations.

W. C. SULLIVAN.

Heredity. (*Prog. Méd., Nos.* 40—43.) *Chantemesse and Podwyssotsky.*

These lectures describe the changes from the fusion of the spermatozoon with the germ cell. It would be impossible without translating the whole text to transmit a knowledge of the order and character of these processes, and to some extent it would be unprofitable, for the mystery of development still remains unrevealed; but as the information afforded by these learned professors is drawn from the most recent researches (some of it is new to us), we venture to translate a few passages here and there which more nearly concern the student of mental pathology. Researches in comparative pathology confirm and control the clinical observation. Herting has noted anomalies in the division of the nuclei in the eggs of sea-urchins kept in a modified liquid. Upon keeping the spawn of the frog in salt water he observed a delay, and then an arrest of development. In a saline solution of ·5 per cent. the development went on and produced anencephalous or hemicranian monsters. Pouchet and Chabry found that hatching the eggs of sea-urchins in water deprived of lime hindered the formation of the calcareous spicules which form the skeleton of their arms, resulting in the latter not developing at all, showing that the cause of cellular development does not always rest with the nuclei or cytoplasm, but also may reside in the outward conditions. In 1893, Herbst was able to modify the structure of the pluteus by hatching them in water to which he added various salts. Different monsters appeared with morphological character founded upon the elements which formed the salts. The monsters produced by the treatment with the salts of potash differed in appearance from those treated with the salts of lithia. These curious observations make us hope that we shall yet be able to specify the types of the most common cachexies, such as alcoholic, tuberculous, and syphilitic. Folet Varinski (1883) and Dareste (1891), experimenting on animals higher in the scale, obtained by heating the eggs on one side a reversion of the head and of the heart, which culminated in a complete inversion of all the viscera. Féré (1895), by subjecting the eggs of fowls to the vapours of alcohol in an incubator, has brought about the production of monstrosities. Gley and Charrin (1896), experimenting with guinea-pigs and rabbits which were subjected to the influence of pyocyanic toxines, noted many abortions, and in the brood which survived a retarded growth and sundry deficiencies of nutrition. Charrin observed slow growth in the children of diseased mothers. There is no doubt that soluble substances do pass from the maternal to the fœtal circulation. The experiments of Strauss and Chamberland, confirmed by Koubassoff, show that the bacteria of carbuncle get through the placenta. Chantemesse and Widal have demonstrated that the bacteria of typhoid may be present in the fœtus of females inoculated with the virus of typhoid. The same germ was found by Eberth in the blood of children born of mothers who had typhus fever. In like manner the streptococcus, the bacillus of glanders, and the hæmatozoa of malarial fever have been traced from the mother to the fœtus. Experiments of this kind, however, are liable to fail if the peculiarities of the structure of the placenta are not considered. The disposition of this organ, which is believed to act like a filter in most cases, in this respect acts differently in different animals, and even

differently in animals of the same species, and in the same animal at different stages of gestation.

The authors present the following general conclusions:

1. The anomalies and pathological conditions acquired in the course of an individual life (with the exception of some infectious diseases) are not transmissible as such to the offspring.

2. The only maladies which are hereditary and transmitted as such to the descendants are those which have been already inherited by progenitors themselves, or the pathological states which have arisen in the organism of the progenitors in the first stages of intra-uterine life,—that is to say, before the germs of the future sexual glands have been differentiated from the mass of the whole embryo.

3. Diseases acquired by the parents may provoke disorders of nutrition in the sexual glands and in the uterus, and thus influence the development of the spermatozoon, of the ovum, and of the embryo. This may become the cause of divers forms of diseased growth, general weakness, irregular development, and signs of degeneration in the descendants. These cachexies create an hereditary predisposition to divers affections.

The authors define nervous heredity as the aptitude to contract nervous disorders handed down to an organism by progenitors placed in the same conditions of heredity, or exposed to certain influences which can act upon the nervous system. Neuropathic heredity may have for its anatomical basis the imperfect development of the ganglion cells of the nerve-fibres. The psychological basis in mental diseases is the feeble resistance which the moral personality opposes to every suggestion and to every impulse. Trifling causes, vexations, or exhaustion bring out insanity in those predisposed, while others escape. Most impulsions are hereditary, one of the most tenacious being the impulse to suicide. He cites a case of a monomaniac from Moreau (de Tours) who killed himself when thirty years old. His son had scarcely arrived at that age when he was seized with monomania, and made two attempts at suicide. Another man in the flower of his age became insane and drowned himself. His son, blessed with good health and riches, the father of two fine children, drowned himself at the same age. Neurasthenia "which rides upon the neuroses and psychoses" is often hereditary. So are epilepsy and hysteria. These two diseases are rarely transmitted by similar heredity; one finds in the ascendants derangements of nutrition of the nervous system, such as chronic infections, permanent cachexies like arthritic rheumatism and gout, and continued intoxications like those of lead and alcohol. The experiments of Brown-Séquard upon the hereditary transmission of epilepsy in guinea-pigs, induced by section of the grand sympathetic of the neck, appear to prove that the effects of traumatism may be transmissible; but they note that counter-experiments have not confirmed the assertions of Brown-Séquard. A superficial mutilation is not transmitted from the father to the son; the amputation of the ears of bull-dogs and of the prepuce of Jewish children have to be repeated at each generation.

Can one attribute to each sex a special hereditary power? Do the sons inherit especially from the mother, and the daughters from the father? Joseph Muller, with his new theory of gamophagy, has sup-

posed that in the fusion of the nuclei of the germinal cells there is digestion of one substance by the other, the weak by the strong. One often observes a predominance sometimes in favour of the male sex, sometimes in favour of the female. On pairing a female grey mouse with a male white mouse, we see that the offsping approach the male or female parent in an irregular way. Human half-breeds generally share the appearance of both parents.

The authors mention various hypotheses to explain the determination of sex, and cite the experiments of Maupas, who found that, in the Hydatina, he could produce males and females at pleasure by raising or lowering the temperature. W. W. IRELAND.

On Heredity in Disease. (*Scott. Med.-Surg. Journ.*, *April*, 1900.)
Prof. Hamilton and others.

Professor Hamilton shows himself in this paper to be a loyal supporter of Weissman's theory of the continuity of the germ plasm in so far as disease affects the problem. His first point is that diseased conditions caused by external agencies cannot be by heredity through generations. He remarks, first, that mutilations are not transmitted, and that the so-called illustrations of the transmission of acquired disease resolve themselves into cases of antenatal contagion, *e.g.*, congenital syphilis, and the rare cases of congenital tuberculosis, or inheritance of a predisposition which has not been acquired. The well-recognised family tubercular proclivity must be accounted for by direct extra-uterine contagion and by a tubercular temperament, probably dependent on an inherent want of resisting power in the epithelial structures of the body, which has arisen as a variation in remote ascendants quite apart from external agencies. The colour of the hair, overgrowth of eyebrows and lashes, the presence of lanugo-like overgrowth along the spine and over the legs found in tubercular children, point to an anomalous epithelial type. Professor Hamilton points out that civilised communities show some immunity from tubercle as compared with savage ones, into which tubercle is introduced for the first time; the nature of the immunity he does not discuss, but it must be the result of selection, and not a transmissible acquired immunity. He considers the hereditary appearance of gout as due to a habit also arising as a variation, and therefore transmissible, which may be rendered apparent by diet and alcohol. The excessive amount of uric acid in the blood and tissues in these individuals may be a reversion to a type in which, as in birds and reptiles, uric acid was excreted normally in large amount. Mental disease of an hereditary type may in his opinion be accounted for by a diminished power of resistance on the part of nerve-cells. The psychopathic and tubercular constitutions are said to be frequently related; and this one would naturally expect since nerve-cells are closely related developmentally to epithelia, which, as we have seen, are the inherently weak cells in subjects of the tubercular diathesis. This relationship between the tubercular diatheses and neuroses is denied by some authorities. Dr. T. McDowall is of the opinion that a tubercular heredity is not more frequent in the insane than in the average sane patient. The writer's experience is that well-marked cases of tubercular predisposition are rare.

But can external agencies bring about a transmissible morbid nervous state? Brown-Séquard's experiments, consisting of hemisection of the cord or division of the cervical sympathetic in guinea-pigs, induced epilepsy in the animals, and their progeny were readily thrown into convulsions. These appear to Professor Hamilton to be fallacious, but he does not state why. As crucial evidence of the transmissibility of acquired nervous disturbance from alcohol he would accept evidence it is quite impossible to obtain. He first requires a man free from ancestral taint. Does such an individual exist? Can we determine an individual to be such? The determinants concealed in the germ plasm seem to be rather difficult to scrutinise. He attributes mental derangement as usual to variation occurring in a far back ancestor; congenital syphilis as due simply to intra-uterine contagion. The eradication of a vicious heredity by inbreeding is next discussed, and Professor Hamilton states his opinion that it is possible, but the vice may appear atavistically, generations afterward. Professor Hamilton then asks evidence of telegony in disease, *e.g.*, can a tubercular first husband so affect his wife that his tubercular characters are imprinted on the offspring of a second marriage?

Dr. Clouston followed, and emphasised the fact that Weissman admits that environment, *e.g.*, climatic conditions, might affect the germ plasm, and so the subsequent individual; and on this admission he seems to endeavour to account for all the hereditary character of the neuroses, and so utterly repudiates the essentials of Weissman's teachings.

Professor Ewart described experiments on pigeons, showing that the degree of ripeness of the ovum at the time of impregnation influenced the character of the offspring.

Dr. Ballantyne spoke of the difficulty in separating cases of intra-uterine contagion from cases of hereditary transmission, and stated also that experimental methods relative to the transmission of acquired characteristics might be used during the period of development of the embryo with better results.

Dr. James was opposed to Weissman's theory. It was against "instinct and common sense." He credits Herbert Spencer with this statement.

Professor Schäfer mentioned that Dr. L. Hill had repeated Brown-Séquard's experiments with negative results as to the transmission of the neurosis.

Dr. W. Leslie Mackenzie's contribution can be characterised as able and lucid. He controverts the consolations drawn by Dr. Clouston from what he called Weissman's admissions. W. J. PENFOLD.

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5. Clinical Psychiatry and Neurology.

The Psychoses of Puberty. (*Rpt. xiii, Cong. Internat. de Méd., Sect. de Psychiat.*) *Marro and Ziehen.*

The above was one of the subjects selected for discussion in the Section of Psychiatry at the International Medical Congress (held last August at Paris), and papers were contributed by Professor Marro of

Turin, by Dr. Ziehen of Jena, and by Dr. Jules Voisin of Paris. The views of the last-named having been already epitomised,(1) it only remains to notice the papers of the two former. Professor Marro presented as his conclusions the following :—(1) That puberty exercises an important influence on the psychic life, and that pre-existent mental disturbances might thereby be invested with characters which previously they did not manifest, or manifested only in a minor degree ; or indeed that it might open up the way to definite mental disorder. (2) That amongst psychoses affecting young persons of both sexes at the age of puberty, there was one in particular which might be regarded as specific—the *hebephrenia* of Hecker. (3) That the morbid manifestations of this form of psychosis combined in a special way the symptoms of certain other mental disorders, and that the post-mortem appearances showed morbid structural changes in the cerebral cortex and meninges—possibly consequent on a process of auto-intoxication, due to digestive irregularities and disordered metabolism. (4) The epoch of puberty and the precocious and abnormal exercise of sexual activity might be the means of originating morbid manifestations, stamping in some cases the individual with permanent peculiarity, although in others this might be effaced in after life under favourable circumstances. (5) The prophylaxis of mental disorder at this epoch demanded strict attention to avoid all causes which may interfere with the normal development of the organism, such as excess of physical or mental fatigue, and especially the precocious and abnormal exercise of sexual functions.

Professor Ziehen (of Jena) based his conclusions upon a consideration of about 400 cases of mental disease occurring about the age of puberty. Mental morbidity attained one of its maxima at this period, its manifestations being much influenced by hereditary taint. Apart from this, or in conjunction with it, anæmia, bodily and mental overstrain, acute infectious diseases, and especially sexual excess, played notable parts in the mental troubles of this period. Almost all the recognised forms of mental disorder were met with at puberty—some more prevalent than others, and subject to certain modifications as regards symptoms and course. It was erroneous to speak of a special psychosis of puberty to include the above. The only specific mental disorder of puberty seemed to be that form of dementia which Kahlbaum and others had described as *hebephrenia*, and this was comparatively rare. Amongst other mental disorders affecting puberty were *folie circulaire*, mania, melancholia, acute paranoia, wild hallucinations, and hysterical and epileptic mania. The prognosis in psychoses occurring at puberty was usually less favourable than in cases beginning after puberty. Rest in bed is usually to be avoided in the treatment of pubescent patients ; as also the administration of narcotics. The most important curative means was judicious employment, both for the body and the mind, regulated for each hour of the day. Caution was needed as to the admixture of such patients with adults in the wards of an asylum.

G. E. SHUTTLEWORTH.

(1) See p. 151.

The Maniaco-melancholic Insanity of Kraepelin [*Sulla Frenosi maniaco-depressiva del Kraepelin*]. (*Il Manicomio, fasc. i*, 1900.) *Galdi, R.*

This paper is a critical study of Kraepelin's recently expressed views of the nature and nosological position of mania and melancholia. In the last edition of his *Psychiatrie* the Jena alienist classifies the psychoses into acute, demential, and chronic; and in the acute non-demential psychoses distinguishes two groups, viz, (1) simple melancholia occurring in advanced life, and (2) the maniaco-melancholic insanity, embracing the rest of the acute cases which end in recovery. The essential character of the latter group is the occurrence of symptoms of mental exaltation (gay, expansive disposition, logorrhœa, etc.) and symptoms of mental depression (melancholic disposition, slowing of psycho-motor reaction); these symptoms appearing separately, or in irregular alternation, or simultaneously in a confusional form. The disease may begin at any age, but most usually appears in youth; it may be manifested only by a single attack of mania or melancholia, but in most cases two or more attacks occur in a lifetime, separated by uncertain intervals; it affects women more than men; and it arises on a basis of degeneracy.

Thus Kraepelin regards mania and melancholia as different phases of the same morbid state, as depending on the same pathological cause.

In discussing the validity of this view Galdi confines himself to clinical arguments; he considers that criticism from the statistical standpoint is open to fallacy, and that pathological evidence is at present of dubious value. Having pointed out that many observers, from Pinel and Esquirol onwards, have admitted a fundamental connection between mania and melancholia, the author questions whether there is clinical justification for Kraepelin's generalisation of this idea by the substitution of his maniaco-melancholic insanity for the older types. He argues that the affective state in mania and melancholia, though the most important, is not the sole factor in the clinical individuality of these disease forms; that oscillations in that state do not destroy the stability of the clinical type; and that such oscillations occur in other well-marked forms of mental disease. As an example of the last-mentioned fact, he gives the history of a case of chronic insanity in a degenerate subject, where after thirteen years of maniacal exaltation the patient suddenly became and remained melancholic; the affective tone was changed, but beneath it the impulsive and delirious character remained unaltered, and showed the continuity of the morbid condition.

His conclusion is that, though there is no ground in pathology for opposing mania to melancholia, nevertheless clinically a sufficient number of cases occur in which one condition or the other does exist in well-defined and stable form, and that therefore in a classification based on symptoms it is desirable to retain the two groups, and not to merge them in a single maniaco-melancholic psychosis.

W. C. SULLIVAN.

Sexual Life, Marriage, and Offspring of an Epileptic [*Vie sexuelle, mariage, et descendance d'un épileptique*]. (*Prog. Méd., Sept. 22nd*, 1900.) *Bourneville and Poulard.*

This is the observation of an average case of idiopathic epilepsy, reported in the exhaustive manner which renders Bourneville's clinical records so reliable. The points specially dwelt on are the patient's sexual history, and the evidences of degeneracy in his children. Sexual appetite was excessive for some years; fits never occurred during or soon after coition. Of the patient's eight children three died in infancy; one was epileptic, and two presented anomalies of character.

W. C. SULLIVAN.

Paralytic Idiocy [*Idiotisme e Sindrome di Little*]. (*Ann. di Nevr., fasc. iii and iv*, 1900.) *Mondio, G.*

This is a long and careful description, illustrated by engravings, of five cases of paralytic idiocy. In only one of these were there peculiar symptoms apparent at birth. In the second case the child fell ill after two years, the third when about ten months old, and the fourth and fifth had passed the third year of life. There was present in all paralysis of the limbs, hemiplegia or paraplegia, with disturbance of the intelligence ranging from idiocy to weak-mindedness. Choreic movements and epileptic seizures were observed in some of the cases. Dr. Mondio regards them as congenital. In all he finds nervous disease in the life history of the parents and in the collateral relations. He takes much pains and some repetition to elaborate this point. Dystochia and accidents during birth, causing injury to the brain and hæmorrhages, and assigned as causes by some authors, he regards as mere coincidences, and gives little weight to encephalitis or cysts. The primary lesion in his opinion is aplasia of the whole cortical and spinal motor system, principally affecting the paracentral lobes. In this respect he differs from most writers, who assign to paralytic idiocy a variety of causes and lesions; and although the views of others who have treated of the subject before him have not met with his approval, it is certainly not because he has neglected to study them, judging by the erudite way he discussed a large number of citations. W. W. IRELAND.

Progressive Myopathy with Mental Insufficiency [*Myopatia progressiva e insufficienza mentale*]. (*Riv. Mens. di Neuropat. e Psichiat., August*, 1900.) *De Sanctis, S.*

The author reviews the literature of the progressive myopathies, more especially from the point of view of the accompanying mental symptoms. He considers that sufficient attention has not been directed to this point.

He describes the case of a boy æt. ten years, who first showed symptoms of the muscular condition when five years of age. This was accompanied by an evident mental disturbance of the nature of intellectual and moral weakening. At eight years he was sent from school owing to mental dulness and lack of discipline. He now suffers from progressive muscular atrophy affecting most of the muscles of the body; the thighs are pseudo-hypertrophic. The condition is slowly advancing.

His mental condition is apathetic; the attention much reduced; the memory moderate; his intellectual powers are very limited, and there is moral deterioration. The simultaneous development of the mental and physical conditions is of interest. J. R. GILMOUR.

On Three Cases of "Hysteria Magna" [Ueber drei Fälle von "Hysteria magna"]. (Arch. f. Psychiat. u. Nervenkr., B. xxxiii, H. 3, 1900.) Steffens, P.

The first case is interesting chiefly from the difficulty of the diagnosis. A girl æt. 16, with tubercular heredity and history, suffered for some years from pain and tenderness in the lumbar vertebræ, the reflexes being sometimes increased and the temperature sometimes above normal, and the case was at first regarded as one of spinal caries, or possibly only of spinal irritation. Later, with headache, high temperature, and "cerebellar gait," signs of commencing optic neuritis were observed, and the diagnosis of cerebral tumour, probably tubercular, was arrived at. Eventually, however, the patient developed seizures in which maniacal violence was associated with convulsions and contortions of the usual hystero-epileptic character, of all of which the patient afterwards remembered nothing. Charcot's "hysterical stigmata" were also present, notably loss of the conjunctival reflex, concentric reduction of the field of vision, and varying analgesia in symmetrical zones. Treatment (after the hysterical symptoms appeared) was chiefly isolation, and the patient made a good recovery.

The second patient, a girl of 17, suffered from hysterical convulsive seizures, chiefly affecting the right side, with headache, and sometimes —not always—loss of consciousness. They could sometimes be stopped by flicking with a wet cloth, etc. *In some of these attacks the pupils were dilated and fixed.* Numerous hysterical stigmata were present. The mental state was very variable, fluctuating from depression (one serious suicidal attempt) to exaltation, and marked by fits of confusion with hallucinations and delusions. After one severe attack gastric symptoms appeared, and the stomach was found to contain no free HCl; this, however, reappeared after ten days' freedom from attacks. Treatment had little effect, and after two years the girl was discharged only "improved."

In the third case, that of a girl æt. 24, after an attack of melancholia (two suicidal attempts) there were paroxysmal seizures of an acutely maniacal character, ushered in by headache or gastric pain, in which the patient suffered from hallucinations and delusions, and showed unilateral hysterical stigmata. Afterwards there was complete forgetfulness of what had taken place, and between the attacks the patient's condition was absolutely normal. An interesting point is that the amount of liquid ingested and of urine passed increased enormously at the time of an attack. She was discharged improved.

A fourth case is given, without much connection with the others, of a man who died in status epilepticus, *the convulsions being idiopathic in origin, and affecting one side (the left) only.* Only one other such case has been described.

The differential diagnosis between hysteria and epilepsy is then discussed, and it is shown that no single sign belongs exclusively to

one or the other, even the pupillar fixity, supposed to be peculiar to the latter, having been found in hysteria by various observers. As the two diseases shade imperceptibly into each other clinically, the author argues that there is probably no essential difference between them, but that both are due to the same cause occurring in different forms, and with varying intensity and duration. W. R. DAWSON.

On Hystero-epilepsy [*Ueber "Hystero-Epilepsie"*]. (*Arch. f. Psychiat. u. Nervenkr., B. xxxiii, H.* 3, 1900.) *Steffens, P.*

Referring to the theory put forward by him, of the essential identity of hysteria and epilepsy, the author argues that between those of "pure" epilepsy and "pure" hysteria there are transition cases, displaying in every gradation the characters of both diseases, to which the name of "hystero-epilepsy" may properly be given; and he brings forward an interesting case as showing that even a severe cortical lesion may give rise to attacks of this mixed character instead of Jacksonian epilepsy.

The case is that of a woman æt. 28, with tubercular heredity, who had undergone several operations on the left side of the cranium, in one of which the dura was opened up, and the temporal lobe explored, through the mastoid process (opened for middle-ear disease), with the result that she suffered from intense headaches afterwards. Trephining was subsequently performed, and a sero-sanguineous cyst in the posterior central gyrus evacuated, with very temporary improvement; and the morphia given to allay the pain led to the formation of the morphia habit. After recovery from this, and separation of several small sequestra, a series of seizures occurred of a curiously variable character. In most the patient became suddenly unconscious, there were clonic and tonic spasms of the extremities, and sudden awakening; the tongue was never bitten; only once was there enuresis, and the pupils, as a rule, reacted to light. Once or twice there was froth on the lips. Once there was a preliminary cry, the pupils were fixed, and consciousness was not fully regained for half an hour; and on another occasion without marked spasm, except of the jaws, there was a period of "grandes attitudes," followed by one of increased tendon reflexes and general analgesia. The spasms were never restricted to one part. Hysterical stigmata were present between the attacks—reduction of visual field and various sensory impairments, sometimes general, at others in symmetrical zones, or unilateral, or of the special senses,—and there was the usual hysterical variability of character, though the patient seems to have been in the main normal mentally. The pain in the head had lessened before the onset of the convulsive attacks. The patient was discharged on trial. W. R. DAWSON.

A Case of Hysterical Fever [*Di un caso di febbre isterica*]. (*Il Manicomio, fasc. i—xi*, 1899.) *Fontana, M.*

The patient, a woman, was born in 1867. Her grandmother and one brother were hysterical. As a child she had night terrors. At eighteen the menses appeared, and were accompanied by marked pain in the ovarian region. At twenty she had convulsive seizures, in which she did not lose consciousness, did not pass urine, nor bite her tongue.

These seizures began with the ovarian pain and with sensations in the throat, and terminated in prolonged attacks of vomiting of frothy, clear, or blood-stained mucus. These attacks became more frequent, and led to her admission to the asylum in 1891. Since then other hysterical manifestations have been contractures of the arm, cured by hypnotic suggestion, diffuse anæsthesia for pain sensation, absence of the pharyngeal reflex and anuria. There were also marked idiosyncrasy for antipyrin, antifebrin, and salicylate of soda. The most interesting feature, however, was that, during the years 1891 to 1898, she had febrile attacks at frequent intervals, during which the temperature ranged from 37·9° to 39°, and even to 40°. These attacks would last for eight to ten days on an average. There was no apparent cause. The type of fever was irregular, sometimes continuous, sometimes intermittent. The pulse and respirations might be normal, or there might be increase in the rate of breathing; she did not lose weight during them. Malaria, tuberculosis, auto-intoxication, etc., could all be excluded, and the fever seemed to have a pure "nervous" origin.

The author reviews the literature of the subject at some length.

J. R. GILMOUR.

A Case of Abdominal Tympanites of Hysterical Origin [*Un cas de tympanisme abdominal d'origine hystérique*]. (*Nouv. Icon. de la Salpt., Jan., Feb.*, 1900.) *Beniot and Bernard.*

This is the case of a soldier who, having been the subject of syphilis, cystitis, and abdominal pains, in December, 1897, noticed that with increase of the pain his belly began to swell. This was thought to be due to cystitis. On and off until March he was laid up for it. On the 15th of March, after admission into hospital, the main positive symptom noted was marked tenderness near and to the right of the umbilicus. The tympanites was never spontaneous, but always followed fatigue; it was uniform, and came on gradually; it disappeared gradually and progressively without any emission of gas, and without appreciable peristalsis. His family history was good. Although there was an absence of hysterical stigmata the diagnosis seemed to be clearly hysterical, and in favour of this was the mental state of the patient, and the possibility of auto-suggestion arising from the fact that an uncle and a brother were being treated for some abdominal trouble. Cases of permanent or lasting meteorism are not rare in hysterical patients; but intermittent, almost voluntary meteorism, as in this case, is decidedly a rare occurrence. Care was taken to exclude the possibility of simulation or malingering, and there was no evidence of hysterical aërophagia or air-swallowing. Concerning the mechanism or pathogeny of this phenomenon, it seems clear that the seat is exclusively intestinal, and that it does not arise from over-production of gas, but from excess of distension of the gases normally in the bowel, for no emission of gas, *per os* or *per anum*, accompanied the return of the abdomen to the normal state. The hypothesis favoured by the authors is that of some temporary paralysis of the involuntary muscular tissue of the bowel, the case coming under the category of mono-symptomatic visceral hysteria. Hitherto there has been a tendency to believe that hysteria affects only the voluntary muscles, or muscles of relation, as

contradistinguished from the involuntary or organic muscles, but with the progress of our knowledge examples of these organic determinations of hysteria seem to become more frequent and less controvertible.

H. J. MACEVOY.

A Case of Hysterical Hemiplegia cured by Hypnotic Suggestion, and studied by aid of the Cinematograph [*Un cas d'hémiplégie hystérique guéri par la suggestion hypnotique, et étudié à l'aide du cinématographe*]. (*Nouv. Icon. de la Salpt., March and April*, 1900.) *Marinesco, M. G.*

This is the report of a case of right hysterical hemiplegia with hemianæsthesia—superficial and deep—to all forms of stimulation except in the index finger.

The chief interest of this paper lies in the careful study of the gait by aid of the cinematograph, especially when read in conjunction with another paper by the same author, in which he similarly studied the gait in cases of organic hemiplegia, and which was published in *La Semaine médicale* of July 5th, 1899.

In the present paper there are reproductions, from cinematographic films, of the patient walking (*a*) during the swing of the affected leg, (*b*) during the swing of the sound leg, and (*c*) after recovery.

The chief difference, to which the author draws attention, between the gait in hysterical hemiplegia and that in organic hemiplegia is this: that in the former there is little or no movement at the joints of the affected limb; while in the latter there is a certain amount of flexion at the hip, knee, and ankle. W. H. B. STODDART.

Epileptic Attacks preceded by Subjective Auditory and Taste Sensations, probably due to a Tumour of the Left Temporo-sphenoidal Lobe. (*Lancet, April 21st*, 1900.) *Michell-Clarke, J.*

This is a contribution to the literature of what Dr. Hughlings Jackson has called the "uncinate group of fits."

A woman æt. 40 was first seen in November, 1898, when she gave the history of a gradual onset of headache, giddiness, occasional sickness, and pains in the eyes. She then had slight left hemianæsthesia and a tendency to stagger in walking, and there was optic neuritis. In January, 1899, the hemianæsthesia had disappeared, but there was twitching on the right side of the mouth. In April she had a fall, owing to her right leg giving way without apparent reason. In July her chief symptoms were (1) "attacks" preceded by hallucination of taste and smacking of the lips, and by hallucinations of hearing a band playing at a distance; she did not lose consciousness, but was afterwards unable to understand what was said to her and to speak, and while recovering from this condition she used wrong words (paraphasia); (2) headache, chiefly nocturnal; (3) giddiness; (4) occasional sickness: (5) pains in the eyes; (6) optic neuritis; (7) a dull mental state; (8) paresis of right arm and leg; (9) slight right deafness to the high notes of Galton's whistle.

The condition of the patient altered but little during the remainder of her illness. She died comatose in December, 1899. Unfortunately

no autopsy was allowed, but there is every probability that she had a tumour in her left temporo-sphenoidal lobe. W. H. B. STODDART.

On the Cerebral Symptoms associated with Carcinoma [Ueber Hirnsymptome bei Carcinomatose]. (Neur. Cbl., No. 4, February 15th, 1900.)

This is the report of a discussion on the above subject by the Medical Society of Hamburg. The discussion was opened by Saenger, and continued by Nonne, Luce, Trömner, and Lauenstein.

The general outcome of the discussion was that toxines derived from a carcinoma may cause general cerebral symptoms such as apathy, coma, etc., but not local paralyses. Local paralyses, when they occur, are due to metastases, which may be so small as to require the aid of a microscope to demonstrate them. There is no cerebral symptom-complex which can be looked upon as characteristic of carcinomatosis.

W. H. B. STODDART.

Differential Diagnosis between Organic Hemiplegia and Hysterical Hemiplegia [Diagnostic différentiel de l'hémiplégie organique et de l'hémiplégie hystérique]. (Gaz. des Hôp., May 5th, 1900.) Babinski, M.

In the diagnosis between these two affections undue importance has been attached to the extrinsic characters (*i. e.*, relating to the presence or absence of certain phenomena independent of the intrinsic characters or disorders of motility on the side affected, such as the circumstances under which the attack appeared, the nature of the soil upon which it is developed, etc.). Babinski believes that no certainty attaches to them, and therefore dwells upon the importance of a careful study of the *intrinsic* characters themselves, which as a rule furnish the decisive elements of differentiation. As an illustration of this he reviews the characteristic differences between facial palsy of organic and functional origin; he refers to the platysma sign (weakness of the platysma myoides on the hemiplegic side, and therefore predominance of its action on the normal one), and to the exaggerated flexion of the forearm on the affected side (in the absence of amyotrophy) which one sees in organic but not in hysterical cases.

A more recently observed sign, to which Babinski attaches a high value, and which is observed in most cases of organic hemiplegia, is the associated movement of flexion of the thigh, or, as it may be better termed, combined flexion of the thigh and trunk, observed when the patient, lying flat on a resisting flat surface—*e. g.* the floor,—tries to sit up; on the affected side the thigh becomes flexed on the pelvis, and the heel is lifted off the surface. This sign is only present after a certain lapse of time from the onset of the hemiplegia; but while it appears in organic hemiplegia, it is never present in hysterical cases.

Concerning the importance of tendon reflexes in the diagnosis of hemiplegia, Babinski dwells on the difficulties to be met with in certain cases, and on the fact that their external manifestation may be modified or interfered with by psychical influences. The radial reflex, which is often neglected in the examination of cases, is a very reliable tendon reflex. Abolition or exaggeration of tendon reflexes on the paralysed side, and the presence of true ankle- or knee-clonus, may be considered,

if not as laws, at all events as rules which admit of but very few exceptions. With regard to the extensor response to the plantar reflex—Babinski's sign—he believes that faulty technique is responsible for the contradictory results of certain observers; in cases of hysterical paralysis he has never observed the phenomenon, and he is of opinion that if its absence does not warrant an exclusion of the possibility of a diagnosis of organic affection of the central nervous system, its presence is sufficient to affirm the existence of such an affection. Important points in diagnosis, upon which he dwells, are also the character of the contracture in organic hemiplegia as compared with that of hysterical hemiplegia, and the distinctive characteristics and the mode of evolution of the paralysis in the limbs (absence of alternating improvements and relapse, etc.). Hysterical paralysis being a psychical disorder, a result of a perturbation of the imagination or the will, a product of suggestion or auto-suggestion, can only be manifested by phenomena upon which imagination, will, or suggestion have influence, and this is borne out by experience; the muscular tonicity, reflex movements (tendon or cutaneous), are not affected in hysteria. In a tabulated form the author gives in conclusion the characters relating to disorders of movement which differentiate organic from hysterical hemiplegia.

H. J. MACEVOY.

On the "Femoral Reflex" in Interrupted Conductivity of the Dorsal Region of the Cord [*Ueber den "Femoralreflex" bei Leitungsstörung des Dorsalmarks*]. (*Neur. Cbl., January 1st*, 1900.) *Remak, E.*

This paper is interesting in view of Babinski's contribution to neurology with regard to the plantar reflex. The author first epitomises previous observations on the femoral reflex by himself and others. He then records a recent case of a child, two years old, with spastic paraplegia from Pott's disease, involving the third and fourth dorsal vertebræ. There was spasticity of the legs, with increased tendon reflexes and some diminution of sensation. Stroking the sole of the foot caused extension of the big toe with dorsiflexion of the foot. Stroking the skin on the upper anterior part of thigh caused plantar flexion of the first three toes, and occasionally extension of the knee. More powerful stimulation caused flexion of the hip.

The author gives it as his impression, from the cases which he has observed, that lesions in the upper part of the dorsal cord induce the reflex more to affect the toes, while lesions in the lower part induce it more to affect the quadriceps extensor cruris.

W. H. B. STODDART.

Researches on the Clinical Value of the Toe Reflexes—Babinski's Extensor Phenomenon and the Antagonistic Reflex of Schäfer [*Recherches sur la valeur semèiologique des réflexes des orteils*]. (*Prog. Méd., April 28th*, 1900.) *Verger and Abadie.*

The "antagonistic reflex" of Schäfer, as is known, is an extension of the toes produced in certain pathological cases by compression of the tendo Achillis in its upper or middle third, flexion being the response in normal cases. Babinski believes it to be identical with the pheno-

menon first described by him—extension of the toes when the sole of the foot is stimulated, and believes it is a skin or superficial reflex (not a tendon reflex). These reflexes have been carefully studied by Verger and Abadie. As they well say at the outset, marked difficulties are encountered in the investigation of Babinski's sign; *e.g.*, stimulation of the external aspect of the sole of the foot may produce extension in one case, while that of the internal part may produce flexion.

They have experimented with normal cases, that is free from nervous affections, and with pathological cases (cases of nervous diseases).

In normal cases they conclude that the reflex movements of the toes consecutive to stimulation of the plantar cutaneous surface, as a rule, constitute the first stage in a long series of defensive reflexes studied long ago under the name of plantar reflex. A feeble stimulus causes the toes only to move; as it increases in intensity the movement is generalised, and extends to the other segments so that the whole limb is drawn away. If the reflex excitability is increased, a feeble stimulus may produce a generalised reflex straight away, the toes remaining apparently fixed; the movements of the foot as a whole take precedence of the local movement.

The phenomenon of Schäfer is of a different order from that of Babinski; the intrinsic characters of the movements are different, and the two phenomena are independently variable.

As regards the behaviour of these reflexes in pathological cases, they examined five patients suffering from locomotor ataxy, two with spasmodic paraplegia from spinal compression, and fifteen cases of hemiplegia. Testing the cases for several days in succession, they found inconstancy and variability in the reflex phenomena; but some results are constant. To begin with, in organic hemiplegia the so-called antagonistic reflex of Schäfer does not exist; its clinical value is *nil*. With regard to Babinski's sign, they conclude that the great importance attached to it by some observers is ill-founded. It exists; it is frequently seen in organic hemiplegia, but it may be absent, for example, in cases of descending lateral sclerosis after cerebral hemiplegia; it may be present on both sides with a unilateral lesion, etc. Its results are not always constant; it is not so important as ankle-clonus or knee-clonus.

H. J. MACEVOY.

Landry's Paralysis. (*Journ. Nerv. Ment. Dis., February*, 1900.) *Knapp and Thomas.*

Landry's Paralysis: Remarks on Classification. (*Ibid., April*, 1900.) *Taylor and Clark.*

Each of these papers bases its remarks on a recent case of the disease.

In the former paper the authors, by somewhat extending the view of Ross that Landry's paralysis is essentially a form of peripheral neuritis, regard the disease as an affection of the whole of the peripheral motor neuron. Photographs are given of a Marchi preparation of the sciatic nerve, and of a Nissl preparation of some large anterior horn cells of the spinal cord. Both show the characteristic signs of degeneration. These authors, therefore, would still be inclined to regard Landry's

paralysis as a distinct entity. [It must, however, be remembered that such degeneration is quite common in multiple neuritis.]

Taylor and Clark, on the other hand, pay more attention to the many divergences of opinion with regard to the clinical symptoms, course, pathology, and ætiology of "so-called Landry's paralysis," and consider it "probable that the affection does not represent in itself a process to which the term *disease* may properly be applied, and that therefore it is desirable to drop the term as unnecessary and misleading."

W. H. B. STODDART.

A Study of the Lesions in a Second Case of Trauma of the Cervical Region of the Spinal Cord, simulating Syringomyelia. (*Journ. Nerv. Ment. Dis., February*, 1900.) *Lloyd, J. H.*

In June, 1894, Dr. Lloyd reported two cases of this kind in the *Journal of Nervous and Mental Disease.*

The autopsy of the first case was reported in the spring number of *Brain*, 1898, and the present contribution is the report of the autopsy of the second case.

When the patient came under observation, there was paralysis of all four limbs, with atrophy of the muscles of the shoulder girdle. Below this level there was right thermo-anæsthesia and analgesia, but there was no loss of tactile sensation. This condition remained practically unchanged till the patient's death in 1899.

Post mortem it was found that the grey matter was largely destroyed at the seat of injury (fourth to seventh cervical vertebræ). The white matter was also largely destroyed, but the posterior columns were intact.

The case appears to support the view of Van Gehuchten and others that, while tactile sensibility is transmitted by way of the posterior columns, and is uncrossed in the cord, the pain and temperature senses are transmitted by way of the grey matter, and pass upwards along the antero-lateral tract of Gowers of the opposite side.

W. H. B. STODDART.

The Relation between Trigeminal Neuralgias and Migraine. (*Journ. Nerv. Ment. Dis., March*, 1900.) *Putnam.*

Dr. Putnam has for years held and expressed the opinion that there is a closer kinship between trigeminal neuralgia and migraine than that which is expressed by saying that both diseases are indicative of a neuropathic tendency on the part of the patient.

The present paper is a further contribution to the same subject, and is based upon the case of a young man of nineteen, who suffered from daily recurring attacks of trigeminal neuralgia, preceded by hemianopia and accompanied by nausea.

The author refers to other cases bearing on the same subject, *e.g.*, migraine in early years changing to trigeminal neuralgia, ophthalmic neuralgia accompanied by migranoid features, etc.

W. H. B. STODDART.

Vertebral Osteo-arthropathies in Locomotor Ataxy [*Les ostéo-arthropathies vertébrales dans le tabes*]. (*Nouv. Icon. de la Salpt., March, April*, 1900.) *Abadie, J.*

After reviewing the history of the subject which seems to point to the rare occurrence of this affection, Abadie is inclined to believe that it may be overlooked. In four years he has seen five cases with one autopsy. His paper deals with the cases already published and with recently observed ones, and is divided into two parts: the first including cases with autopsy—the two cases of Pitres and Vaillard and one personal one, to which he adds a description of specimen in the Salpêtrière Museum; the second including notes of cases in which no pathological details are known—three cases of Kroenig and four personal ones (two of which have not been published before). Full notes (clinical and pathological) with plates of the three cases in which an autopsy was performed (*i. e.*, the first part of his paper) are given in the above number of *Nouvelle Iconographie*. The iliac bones, sacrum, and lower lumbar vertebræ were extensively affected in Abadie's case.

H. J. MACEVOY.

Generalised Neuro-fibromatosis—Recklinghausen's Disease [*De la neuro-fibromatose généralisée—maladie de Recklinghausen*]. (*Gaz. des Hôp., Nov. 11th*, 1899.) *Levy, G.*

A Case of Generalised Neuro-fibromatosis with Autopsy [*Neuro-fibromatose généralisée—Autopsie*]. (*Nouv. Icon. de la Salpt., Jan., Feb.*, 1900.) *Marie and Couvelaire.*

These two papers, taken together, form an excellent *résumé* of this rare but interesting disease. The first paper is a full general account of the disease, while the second is an account of a case which was carefully observed for four years. The autopsy was very completely and carefully performed, and there are some new observations. Generalised neuro-fibromatosis is a disease characterised by tumours of the nerves and of the skin, pigmented spots in the skin and, less constantly, by painful cramps, anæsthesiæ, difficulty of walking, mental hebetude, loss of memory, and general cachexia. There is rarely a history of direct heredity; more frequently a parent or relation may have suffered from one of the neuroses of degeneration. Occasionally brothers and sisters are similarly affected. The disease is looked upon as congenital, although it may not manifest itself before old age. Usually the onset is in the second or third decade of life. Men are affected much more frequently than women. Among the exciting causes are mentioned general ill-health and bad hygienic surroundings. The tumours are apt to appear especially at points of pressure and friction from the clothes.

The various signs of the disease make their appearance more or less simultaneously. The cutaneous tumours may be thousands in number. They are of the size of a split pea or smaller, and are either in the skin or in the subcutaneous tissue. They may be situated in any part of the body except in the palms and soles. Occasionally several become confluent, so as to form a large tumour (tumeur royale de Boudet); this is, as a rule, soft to the touch, and has been compared to a bag of worms or a varicocele, and it may become transformed into a sarcoma. While

the cutaneous tumours are largely visible, the tumours on the nerves can only be detected by palpation. These are mostly situated in the smaller branches of nerves, and not in the main trunks; they have also been found in the intestine and in the central nervous system. These tumours are very rarely painful or tender. The pigmentation is of a light or dark brown, and is either punctiform or in large patches, giving a piebald appearance. The whole complexion may have an earthy tint, but the mucous membranes are never affected by the pigmentation. The patient becomes weak, and his movements are slow, heavy, and paretic. There has been a co-existence of other nervous diseases in some of the patients. Irregular forms of anæsthesia occur; commonly there is somewhat extensive loss of sensation to temperature and pin-pricks. The bones, especially those of the thorax, may be deformed. The photographs of the case reported by Marie and Couvelaire show this remarkably well. The disease is progressive, and the patient dies with it, but not of it. The commonest causes of death are sarcomatous degeneration of one of the tumours and phthisis. If all the symptoms be present a mistaken diagnosis is scarcely possible. Any one or more of the symptoms may, however, be wanting. The subcutaneous tumours may be distinguished from other subcutaneous tumours by their *lateral* mobility, longitudinal mobility being deficient. The cutaneous tumours must be diagnosed especially from molluscum fibrosum, molluscum contagiosum, multiple fibromata and lipomata, adenoma sebaceum, and multiple dermatomyomata. The pigmentation could only be mistaken for that of Addison's disease, which affects the mucous membranes. The brown pigment is situated in the papillary layer of the corium. The subcutaneous tumours consist of connective tissue, each nodule on a nerve-trunk being commonly made up of several separate nodules situated on the several separate bundles of the nerve. This is excellently shown in the paper by Marie and Couvelaire. The tumours are more apt to be situated on the terminal branches of a nerve than upon the main nerve-trunk. There are four main theories as to the nature of the disease, viz., an infectious theory, a theory of auto-intoxication, a theory of a fibrous diathesis, and a theory which regards the disease as a malformation or teratoma.

The treatment is necessarily symptomatic, surgical aid being only called in for the relief of pain and other serious symptoms.

W. H. B. STODDART.

Syphilitic Polyneuritis [*La polynévrite syphilitique*]. (*Nouv. Icon. de la Salpt.*, *April*, 1900.) *Cestan, R.*

Syphilitic paralysis of isolated nerves, due to gummata, pachymeningitis, osteitis, etc., has often been the subject of investigation by writers (Buzzard, Fournier, Boix, etc.); but syphilitic polyneuritis, probably on account of its rarity, has not hitherto been studied as a clinical entity. Cestan's paper is of the nature of a critical digest, in which he republishes eleven apparently undoubted cases of syphilitic polyneuritis previously recorded by others, and adds two cases observed by himself. Mercury and other toxic agencies, as causes of the cases here reported, are carefully excluded; and the author concludes that the multiple neuritis of syphilis bears well-marked characters of its own.

The symptoms make their appearance during the secondary stage, at a date varying from one to fourteen months from that of the infecting chancre, either before or during the eruption of the secondary syphilides. It would appear that a severe attack of syphilis is necessary to produce syphilitic multiple neuritis. The disease exists in three forms, which the author names *motor*, *sensori-motor*, and *pseudo-tabetic*, according to the relative predominance of the several symptoms. In all of these forms the prognosis is, as a rule, good. On the motor side the poison has a predilection for the musculo-spiral nerve, but the supinator longus is not spared as in saturnine palsy. The reaction of degeneration is common in the muscles supplied by this nerve. Sensory disturbances are always less marked than the motor. Pain and numbness occur to a greater extent than the various forms of anæsthesia. In the sensori-motor cases the deep reflexes are lost. The facial muscles are never involved except by some complication such as pachymeningitis.

Diagnosis of the neuritis presents no more difficulty than other forms of neuritis. The diagnosis of the cause is mainly made by exclusion. There is an absence of mental symptoms (hallucinations and loss of memory), such as are observed in alcoholic neuritis. The disease differs from saturnine palsy in that it involves the supinator longus, and from diphtheritic palsy in that it does not affect the soft palate. It differs from mercurial neuritis in that the reaction of degeneration does not occur in the latter, and further in that syphilitic neuritis improves on mercurial treatment. W. H. B. STODDART.

Cerebral Hæmorrhage involving the Lenticular Nucleus and the whole of the Internal Capsule; Hemiplegia; Special Type of Associated Hemianæsthesia [*Hémorrhagie cérébrale intéressant le noyau extra-ventriculaire et toute la capsule interne; hémiplégie; type particulier de l'hémianesthésie concomitante*]. (*Journ. de Méd. de Bord.*, *September 10th*, 1899.) *Verger.*

This was quite an ordinary case of cerebral hæmorrhage, but the author publishes it on account of certain observations on the type of hemianæsthesia.

The patient, who was in a stuporose condition, gave evidence of pain on being pricked with a pin in any part of the body; but there was this difference upon the two sides, that the patient made an effort to push the pin away from any spot which was being pricked on the sound side (left), while he did not make such efforts when pricked upon the paralysed side (right). The author concludes that this was due to the patient not being able to localise painful sensations on the paralysed side. If so, the observation is in accord with certain experiments made by the author and Dr. Sellier on the dog, from which they concluded that lesions of the posterior part of the internal capsule did not cause loss of sensation upon the opposite side, but only loss of the sense of position.

There has of late been a tendency on the part of neurologists to regard the hemianæsthesia occurring in certain cases of lesion of the internal capsule as a functional or hysterical symptom occurring in the

presence of organic disease, and not as a symptom dependent directly upon the lesion. W. H. B. STODDART.

A Case of Idiopathic Convulsions of the Tongue [*Ein Fall von idiopathischen Zungenkrampf*]. (*Monats. Psychiat. u. Neur.*, *B. vii*, *H.* 1, *January*, 1900.) *Saenger* (*Hamburg*).

An unmarried woman, æt. 29, came under observation with the history that she had been suffering from fits for four months. These were ushered in by frequent yawning, followed by a feeling of stiffness, first in the left arm, then in the right. Then followed the convulsion, in which the mouth was forcibly opened and the tongue thrust in and out of the mouth with great rapidity. There was simultaneous tonic blepharospasm of both sides. On forcibly opening the lids it was observed that the pupils were widely dilated, and did not react to light. Respiration was rapid and superficial, expiration being accompanied by a groan; then followed a pause after the manner of the Cheyne-Stokes phenomenon, respiration starting again after about a minute. Consciousness was never lost. During the fit the whole body trembled, and there were occasional spasms in the arms. Between the fits the patient was apparently normal; the pupils reacted to light; there was no wasting, deviation, tremor, or other affection of the tongue, and hysterical stigmata were absent.

Neither the family history nor the previous history of the patient revealed any factors of ætiological importance in the case.

Treatment by suggestion and with bromides failed. Iron and arsenic, however, were exhibited, and the patient made a complete recovery in four months.

On account of the absence of hysterical stigmata, Saenger does not feel inclined to accept the diagnosis of hysteria; nor would he class the case as an epileptic, because it did not respond to bromides. He therefore stigmatises the fits as idiopathic.

[The important point of this case is the association of the temporary loss of the pupillary light-reflex with the retention of consciousness, an association which has not, so far as we are aware, been hitherto recorded.] W. H. B. STODDART.

A Case with Autopsy, in which Weber's Combination occurred on Both Sides [*Double Syndrome de Weber, suivi d'autopsie*]. (*Nouv. Icon. de la Salpt.*, *March*, *April*, 1900.) *Souques*, *A.*

This was a case of a woman æt. 50, who, after suffering from right temporal headache for ten days, became suddenly affected with an alternate hemiplegia due to a lesion of the right crus cerebri (right third nerve palsy with left hemiplegia). Soon afterwards she developed left third nerve paresis with right hemiplegia. There was paralysis of the bilaterally acting muscles (pseudo-bulbar paralysis), and the patient sank into a state of semi-coma. Sensation appeared to be normal. She became marasmic, and died six weeks later.

Post mortem the posterior cerebral arteries were found degenerate, and there were patches of softening in both crura cerebri. The arteritis was probably syphilitic in origin. Although one of the posterior cere-

brals was completely obliterated, there was no softening of the corresponding occipital lobe, the posterior communicating artery of that side having taken up the circulation.

There are photographs of sections through the corpora quadrigemina, etc., stained by Pal's method, and showing the centres of softening. W. H. B. STODDART.

A Case of Hæmatomyelia. (*Journ. Nerv. Ment. Dis., Feb.*, 1900.) *Lloyd, J. H.*

This is a case of hæmorrhage into the cervical cord due to traumatism, in a woman æt. 53. There was paralysis of sensation and movement below the seat of injury, with incontinence of urine and fæces. The knee-jerks were at first exaggerated, but were subsequently lost. There was hyperidrosis above and anidrosis below the seat of injury. Spinal myosis was present. The patient died ten days after the injury.

The lesion extended from the second to the fifth cervical segment inclusive (? third to sixth), and it was surprising to find how small was the hæmorrhage which caused the patient's death. The hæmorrhage was practically confined to the white matter.

W. H. B. STODDART.

The Common Forms of Meningitis and their Recognition, with Special Reference to Serous Meningitis. (*Journ. Nerv. Ment. Dis., Dec.*, 1899.) *Dana, Ch.*

A good clinical, though perhaps not absolutely complete classification of meningitis might be set forth as follows:

Pachymeningitis:
- External, due to surgical complications.
- Internal: Chronic syphilitic.
  - Hæmorrhagic, occurring in insanity, alcoholism, and infantile scurvy.

Leptomeningitis:
- Simple fibrino-purulent (acute and chronic), which may be due to almost any micro-organism.
- Epidemic (acute and chronic), due to either the *Diplococcus intracellularis meningitidis* or to the *Micrococcus lanceolatus*. (There is no way of distinguishing the two forms except by culture.)
- Chronic syphilitic.
- Tubercular.

Serous meningitis:
- Traumatic (acute cerebral œdema), which causes symptoms resembling meningitis, but gets well in three days.
- Alcoholic or toxic ("wet brain"), which closely simulates meningitis, but gets well in ten days.
- Serous meningitis of Quincke and Boenninghaus, probably due to some infection, and lasting three, four, or more weeks. This form has its acute, subacute, and recurrent types. The chronic form may give rise to symptoms resembling those of cerebral tumour. Hydrocephalus, however, develops rapidly and forms a distinguishing feature. W. H. B. STODDART.

Epidemics of Meningitis. (*Lancet, April 28th*, 1900.)

In the *Deutsches Archiv für klinische Medicin* (Feb. 6th, 1900) Berdach records an epidemic of seventy-two cases of meningitis in a town of 8500 people. It occurred mostly between the ages of twenty and twenty-five, the next largest group being composed of children below the age of ten years. The *Diplococcus intracellularis* of Weichselbaum was found in two fatal cases.

The headache was occipital, and the temperature only moderately raised till just before death. The face was the most common part to be affected with paresis. Herpes was present in nearly every case.

W. H. B. STODDART.

Tumour of the Superior Parietal Convolution, accurately localised and removed by Operation. (*Journ. Nerv. Ment. Dis., May*, 1900.) *Mills, C. K.*

The symptoms were mainly those of a functional nervous disorder, and many of the most frequently observed manifestations of organic focal disease were absent. The case throws some light on the areas of representation of muscular and cutaneous sensibility, and of trophic functions.

Dr. Mills gives the following summary:—About five months previous to the operation the patient began to show some ataxia in the right arm, and later in the right leg. All forms of cutaneous sensibility were impaired, muscular sense was lost, and astereognosis was a marked symptom. As the case progressed, paresis and eventually paralysis of the arm and leg supervened. The patient developed a disorder of speech, chiefly showing itself as a verbal amnesia and fatigue on reading. At one time there was a temporary partial right hemianopsia. Reversals of the colour fields and contractions of the fields for form similar to those supposed to be typical of hysteria were present at several of the examinations. The reflexes on the ataxic and paralysed side were somewhat exaggerated, ankle-clonus being present. The patient was emotional and markedly hysterical. The typical headache of cerebral tumour was not present, but he complained much of feelings of discomfort, distress, and pressure, and occasionally of pain, these sensations being almost uniformly referred to the left parietal or parieto-frontal region near or about the median line of the head. Vertigo, nausea, vomiting, and optic neuritis entirely absent. The patient from first to last had no convulsions, and not even the slightest local spasm. The writer believed the case to be one of brain tumour originating in what he holds to be the true cerebral sensory area, this opinion being based chiefly on the sensorial localising symptoms, and on the pressure symptoms which ensued as the growth enlarged in size and the case developed. The visual symptoms, the disorder of language, the motor paralysis, and the changed reflexes were thought to be in the main pressure symptoms, although it was believed that the motor subcortex had probably been invaded to some extent. These surmises proved correct at the operation that was undertaken by W. W. Keen. The growth was successfully removed from the left superior parietal lobule. The gradual recovery of the patient is described, and the latest report

as to his condition, three months after the operation, is to the effect that the only noticeable defect was a very slight limp.

W. G. Spiller examined the growth, and reports that it was an endothelioma of subcortical origin, where it presumably arose from the walls of the blood-vessels. It had no connection with the dura. The tumour was not encapsuled, and the adjacent nerve-cells were much degenerated.

Tumour of the Left Cerebral Hemisphere with Subjective Pains in the Limbs of the Opposite Side [*Tumeur cérébrale de l'hémisphère gauche; phénomènes douloureux subjectifs dans les membres du côté opposé*]. (*Journ. de Méd. de Bord., Oct. 8th*, 1899.) *Verger and Laurie.*

This was a case of sarcoma occupying the posterior half or more of the hemisphere. There was slight right hemiplegia with diminution of sensation in both legs and the right arm. The knee-jerks were lost. There was diminution of the right visual field. The patient came under observation complaining of headache and pains in the right arm and leg, and he suffered from these pains in the limbs until his death four months later. W. H. B. STODDART.

Aneurism of the Left Vertebral Artery [*Anévrisme de l'artère vertébrale gauche*]. (*Nouv. Icon. de la Salpt., Jan., Feb.*, 1900.) *Ladame and Monakow.*

A man æt. 68, who had contracted syphilis forty years previously, began to suffer in 1893 from severe attacks of vertigo and of angina pectoris. His arteries were very atheromatous. Two years later he had an attack of vertigo more severe than the rest, culminating in an apoplectiform attack, after which he always suffered from a cerebellar type of staggering. He also had some difficulty of articulation, and great inco-ordination of the movements of his right hand, so that his writing became absolutely illegible. On August 27th, 1895, after a heavy meal he had another similar attack, associated with vertigo and vomiting; consciousness was not lost. After this attack he was never again able to walk, or even to sit up in bed, since he always fell to the left side. There was, however, no marked loss of power anywhere; the right limbs were only slightly weaker than the left. From the date of this attack there was complete right-sided loss of sensation of temperature and pain, but no loss to touch. There was a slight left convergent strabismus associated with double vision. Later there was considerable difficulty of deglutition. The patient became delirious, stuporose, comatose, and finally died on October 6th, 1895. His physicians had unfortunately never auscultated the mastoid.

Post mortem there was found an aneurism—the size of a pigeon's egg—of the left vertebral artery, deeply encased in the pons and upper part of the bulb. All the arteries of the base were dilated, but more so on the left than on the right side. The results of the compression of the bulb by the aneurism are very carefully described in detail, but it is impossible to abstract this part of the paper. Briefly it may be said that most of the structures in the left half of the medulla are atrophied. As a result of the compression of the left olivary body the arciform fibres (ruban de Reil) crossing to the right inferior cerebellar peduncle

were degenerated. Conversely all the fibres in the left inferior cerebellar peduncle were degenerated, except the tract crossing from the right olivary body. W. H. B. STODDART.

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6. Pathology of Insanity.

Melancholia and Epilepsy from Softening of the Left Frontal Lobe [*Melancolia ed epilessia di rammollimento del lobo frontale sinistro*]. (*Arch. di Psichiat., vol. xxi, fasc. vi.*) *Burzio.*

The patient was first admitted to the Turin Asylum in 1879, æt. 39 years. A maternal aunt had committed suicide. Patient had been addicted to drink. For some time before admission he suffered from persistent headache, and from vertiginous attacks occurring every two or three months: he had latterly developed mental symptoms characterised by emotional depression with a certain degree of apathy, interrupted by crises of anxiety and agitation. For these symptoms he was sent to the asylum, where his state on reception was noted as one of melancholic depression; general health very indifferent; pupils dilated, irregular, and sluggish in reaction. With brief intervals of provisional liberation, he remained in the asylum till his death, in 1898, from pleuro-pneumonia supervening on generalised arterio-sclerosis. During the last ten years of his life he had a few epileptic fits of classic type, occurring at long intervals.

The autopsy showed an extensive area of softening occupying the greater part of the cortical and subcortical substance of the left frontal lobe, bounded by the superior and ascending frontal convolutions and the island of Reil; this condition was evidently of old standing. The carotid and the cerebral arteries of medium and small calibre presented sclerotic changes. The heart was hypertrophied, the liver cirrhosed, and the other viscera more or less diseased. Microscopic examination of the cortex adjoining the softened area showed no marked changes.

The author considers that the epilepsy and melancholia must be attributed solely to the lesion of the frontal lobe, as the arterial changes outside the softened area were not of great gravity. He points out that the dependence of melancholia upon such a lesion would be quite in accord with previous clinical and experimental evidence, which tends to connect the pre-frontal region with the higher psychic functions.

W. C. SULLIVAN.

A Research on the Condition of the Vagus and Sympathetic Nerves in General Paralysis of the Insane. (*Arch. of Neur., Lond. Co. Asylums*, 1899.) *Wakelin Barratt, J. O.*

This research was undertaken at the suggestion of Dr. Mott with the object of ascertaining if any changes were recognisable in the pneumogastric and sympathetic nerves in advanced general paralysis. Ten cases were examined (method given in detail), the sections being contrasted with other sections obtained from non-general paralytic cadavera.

Dr. Barratt's results were negative. No evidence of degeneration of medullated nerves could be obtained in the ten cases investigated (with the exception of a single fibre, presumably, therefore, accidental). Nor did the non-medullated fibres or the surrounding connective tissue show any abnormality. This research confirmed Dr. Mott's opinion, expressed in his report of 1897, that fatty degeneration of the heart and other muscular structures could not be accounted for by recognisable degenerative changes in the vagus and sympathetic nerves. Dr. Barratt illustrates his paper, the drawings being of his usual neat character.

J. R. LORD.

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7. Treatment of Insanity.

On the Hypnotic and Sedative Action of Hedonal [*Sull' azione ipnotica e sedativa dell' hedonal*]. (*Riv. sperim. di Freniat., vol. xxvi, fasc. ii, iii*, 1900.) *Biancone, G.*

Hedonal is one of the newer products of the urethane group, it being combined with higher alcohols than the other members. It is a white crystalline powder with an aromatic odour and taste. Slightly soluble in water, it is readily soluble in any organic fluid. It is said to be fully oxidised in the system. Given in doses of ½ to 2 grms. (7 to 30 grains) it has a sedative action on all nerve-cells. It has little effect on the temperature, lowering it only about ·3° C.; the pulse is lowered from six to twelve pulsations per minute; the blood-pressure decreases by from 10 to 15 mm. of mercury—evidently a vaso-dilator effect. There is a notable increase in the total quantity of urine excreted, but without increase of the total solids. In nervous insomnia it produces sleep, generally of some hours' duration, in from half to two hours, without dreaming or bad after-effects. It proved of value in a case with gastric crises. Excellent calmative results were obtained in the excited state of melancholia and of *folie circulaire*. It has no effect in reducing the number of fits in cases of epilepsy, but is of value in the excited stage following them. In many cases it succeeds when sulphonal, trional, chloral, and even morphia are only partially successful.

J. R. GILMOUR.

Upon Rest in Bed in the Treatment of the Acute Forms of Mental Disease, and the Modifications which it may necessitate in the Service of Asylums. (*Arch. de Neur., Oct.*, 1900.) *Korsakow, S. S.*

In a well-reasoned, very temperate article on the above subject, Prof. Korsakow insists upon the value of rest in bed as a definite *system of treatment;* but whilst recognising bed as the essential therapeutic element in this treatment, he urges that it must be used by persuasion, and the suggestive influence of the surroundings, and not by forcible restraint. He considers, however, that there may be exceptional cases where the patient must be kept in bed by force as the lesser evil, in the same way that in surgical cases even the no-restraint system may require the strait jacket. In like manner the use of cells

may, he thinks, in exceptional cases be allowed without invalidating the system of rest in bed as a system.

He urges the importance of individualisation and the strict and definite prescription of the amount of rest in bed for each case,—in other words, the dose of *bed* must be accurately apportioned. In this way it does not in any way clash with other therapeutic systems, *e. g.*, of "no restraint," of "occupation," of "open doors."

The use of the general ward is a potent means of organising the system; it enables a better supervision, and at the same time a less irksome surveillance (if the patient is inclined to resent the individual watchfulness of the attendant). It is eminently suggestive to the patient.

The system must be carefully guarded against the abuse of engendering a spirit of sloth and lack of mental effort; it is therefore not to stand as a system by itself, but must associate itself with other means, and where apathy and anæmia prevail, it may be contra-indicated.

It is essentially indicated in the more acute psychoses, especially at the beginning of the disease, and it acts favourably on the majority of the cases of acute mania, on cases of alcoholic delirium, and on many forms of mental confusion and of melancholia.

HARRINGTON SAINSBURY.

The Effect of Rest in Bed [*alitement*] *on Blood-pressure in Mental Affections.* (*Rev. de Psychiat., Oct.*, 1900.) *Vaschide and Mennier.*

The authors record their investigations by means of the manometers of Potain and of A. Mosso. The latter instrument gives the more accurate results, but is more delicate and requires very cautious handling. Twenty-seven cases were examined, and 118 readings of the radial pressure and 137 capillary pressure-curves were taken. The results are as follows:—In maniacal excitement the blood-pressure is raised. In states of delirium with agitation it is also raised, but to a less degree. In anxious melancholia with mental instability it is diminished. In the dementias no definite effect is witnessed. In idiocy, melancholia, and general paralysis of the insane no effect whatever occurs.

The authors consider that the treatment by prolonged rest in bed as at present carried out is far from meeting the requirements of the case in many instances, more particularly in that it fails to supply the needful stimulus, and tends to produce an *ennui*.

HARRINGTON SAINSBURY.

Organo-therapeutics in Mental Diseases [*Prize Essay for* 1900, *Medico-Psychological Association*]. (*Reprinted from Brit. Med. Journ., Sept. 22nd*, 1900; *Scottish Med. and Surg. Journ., Nov. and Dec.*, 1900.) *Easterbrook, C. C.*

This is an important paper; it develops very carefully the precautions necessary to avoid fallacies in the interpretation of results. The method of procedure, dietetic regulations, and investigations of the several secretions and of the blood are most thorough and painstaking. Of the several organic extracts the thyroid receives the most attention. The catabolic activity of this extract is demonstrated, and to the

stimulus which catabolism receives, and to the *anabolic rebound* which follows he attributes the value of the drug in those cases in which a beneficial effect is secured. Upon the whole Dr. Easterbrook considers that the drug has a decided positive value in mental affections; in women he thinks it is more effective than in men, and especially in the insanities connected with childbearing.

Reviewing the whole subject (he worked with parathyroid, thymus, pituitary, cerebral, and other extracts), the author concludes that those extracts which consist mainly of proteids (albumen and globulin) and albuminoids have merely a dietetic value; but that those animal extracts which are rich in nucleins and nucleo-proteids produce, when given by the stomach in sufficiently large doses (60 grains and upwards of the dried extract daily), a definite metabolic perturbation, which in the main is a *plus* quantity. More than this, he thinks that the thyroid body contains a specific internal secretion, *i.e.*, contains a specific substance which stimulates metabolism, viz., iodothyrin, just as the supra-renal extract contains a similar body—sphygmogenin.

In the successful cases of thyroid treatment above alluded to the results were obtained by large doses, and not by the small or moderate doses.

The paper requires careful study. HARRINGTON SAINSBURY.

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8. Sociology.

Preliminary Observations on the Etiology of Asylum Dysentery. (*Arch. of Neur., Lond. Co. Asylums*, 1899.) *Durham, H. E.*

An opportune outbreak of this disease at Claybury Asylum provided the material for this research. The inquiry was directed in two ways: (1) to search for a peculiar organism in the organs of fatal cases, which was successful; and (2) to try the effects of the blood-serum of those who had suffered for agglutinating effects upon known organisms. This method proved negative.

The following is his summary and conclusions:—(1) In seven cases of asylum dysentery the same organism was found in pure culture; it was absent in three cases not affected with the dysentery also dying in the asylum. (2) The organism is an extremely minute micrococcus. (3) It does not grow readily on the media which have been tried; sub-cultivations are especially difficult to establish. (4) The micrococcus was cultivated from the blood, spleen, liver, kidney, etc., of dysenteric cases in a state of purity. (5) The most luxuriant growths were obtained by inoculating peptone broth with a few drops of bile from dysentery corpses. (6) Growths are not obtained unless considerable quantity of the infected organs are planted into the broth; the ordinary platinum loop does not take up sufficient amount. (7) It would be interesting to know whether a similar organism is present in other forms of dysentery, such as occur in tropical and subtropical regions, as also in the so-called "amœbic dysentery."

In all cases the bodies were placed, very soon after death, in the

freezing chamber of the London County Asylums' Laboratory at Claybury, which proved of great value. Dr. Durham states that his observations would hardly have been possible without this valuable piece of apparatus. J. R. LORD.

Special Classes for Mentally Defective School Children. (*Charity Rev., Aug.*, 1900.) *Channing, W.*

In this article Dr. Channing gives a lucid account of the case for special instruction of mentally defective school children. He lays stress upon the necessity of the early recognition of even slight deviation from normal development in the child, physical as well as mental (for the two are frequently correlated), quoting the observation of Mosso that "the way to begin education is to consolidate the motor nerve-paths which develop first, and after that the portion of the brain concerned with intellectual work." This is quite in accord with the doctrine long insisted on by Warner; and, in fact, from the time of Seguin onwards all successful training of the mentally defective has been based upon a recognition of the fact that physical must precede psychical education. The drawback is the late age at which, as a rule, mentally defective children come under institution care, and Dr. Channing rightly argues that more benefit would result were the child of three or under scientifically tackled in the kindergarten. However, as Dr. Channing remarks, "motor training is not at present intelligently understood, and there is too little of it in the early years of school life, even during the kindergarten period."

Passing on to the practical arrangements for dealing with exceptional children, Dr. Channing refers to the arrangements which have long been in existence in Germany and Scandinavia, and are now coming into vogue in England, for the special instruction of these "weaker brethren." Though America has been well supplied with resident institutions for the "feeble-minded" (including under this term idiots and imbeciles), it does not seem hitherto to have done much in establishing special classes as auxiliary to the primary schools, and it is the importance of these, under well-trained teachers, that Dr. Channing advocates. G. E. SHUTTLEWORTH.

The Training of Defective Children under School Boards. (*School Board Gazette, April*, 1900.) *Shuttleworth, G. E.*

This is a paper read at the Childhood Society by Dr. Shuttleworth, who, by reason of his position and experience, is particularly fitted to speak on the subject.(1)

He traces the birthplace of the movement for special training of defective children to Halle, in Germany, as far back as 1863. Classes on similar lines were formed at Dresden, Leipzig, and Brunswick; and in 1894 no fewer than thirty auxiliary schools, with a teaching staff of 115, had been established in Germany.

Later estimates state that there are probably not less than 6000 children receiving special instruction within the limits of the German Empire.

He next traces the movement in the Scandinavian countries, re-

marking that there the teachers are usually of the female sex, the opposite being, as a rule, preferred in Germany. As regards this country, Dr. Shuttleworth is distinctly hopeful in spite of our conservative instincts, judging that we shall profit by the experience of our neighbours, and in the long run do much better.

In London we owe the inauguration of special institutions for defective children to the late General Moberly's initiative; the subject had been ventilated before, and in the report issued from the Parkes Museum on the "Scientific Study of the Mental and Physical Condition of Childhood" there is entered a record of many years' previous work. The author notes the honourable rivalry between the School Boards of London and Leicester as regards priority in practical work in this direction, ceding the position to the latter, which opened its first special class (the first in England) in April, 1892. Up to the present, as regards the metropolis, there are upwards of fifty centres of special instruction, dealing with no fewer than 2125 children.

He next gives certain figures indicating progress in this work in various large manufacturing centres.

The expense of special classes must necessarily be large as compared with that of ordinary school instruction (the figure given shows the cost to be about double). The teachers are better paid, and the cost of building is greater. He notes with satisfaction that the Government propose to give for each unit of average attendance in special schools 50*s*. for general instruction, and 30*s*. and 40*s*. for manual instruction of younger and older children respectively.

Dr. Shuttleworth's experience leads him to think that there is more room for individual discrimination in the methods of teaching—the less rigid the system, the more satisfactory the results. As regards school hours, he thinks that a large amount of discretion should be accorded to the teachers; and although in many cases the atmosphere of the special schools is more wholesome, both physically and morally, than that of the home, he is not sure that five hours' inflexible schooling is good for all mentally defective children, who are rarely physically sound. He notes with satisfaction that, in the majority of centres, the School Boards have the advantage of medical advice in connection with the classes; and further, the physical state of these children is such that in dealing with them successfully the medical officer and the teacher must go hand in hand.

Before concluding Dr. Shuttleworth discusses the special training of the teachers. J. R. LORD.

(1) Vide *Mentally Deficient Children; their Treatment and Training*, by the same author; 2nd ed.

Influence of the Separate System on the Mental State of Prisoners [*De l'influence de la détention cellulaire sur l'état mental des condamnés*]. (*Bulletin de la Soc. de Méd. Ment. de Belgique, Sept.*, 1900.) *Léon de Rode.*

The author is one of the physicians appointed by the Belgian Government as consultant alienists to the prisons of that country. As these institutions are almost entirely organised on the cellular system,

Dr. de Rode has had exceptional opportunities of observing the influence of the system on the mental health of the prisoners.

After referring to the earlier statistics bearing on the question, and pointing out their conflicting character owing to local and other limitations, the paper deals with the evidence of recent Belgian experience. Taking the central (convict) prisons, it appears that during the eight years 1891–8 the proportion of prisoners becoming insane averaged 1·58 per cent. in Louvain, where the separate system is in force; while in Gand, under the associated system, it averaged 3·50 per cent. Some of the prisoners becoming insane in Gand, however, had undergone separate confinement before they were placed in association. In the secondary prisons for minor offenders the number of cases of insanity was much lower.

A table gives details regarding all the prisoners found insane on examination by the consultants; these details concern age, antecedents, crime, and period of detention before development of insanity. Other tables give similar details (referring to the years 1896–8) for prisoners relieved from separate confinement, and placed in association on account of mental symptoms.

Taking all the prisons of the country together, it appears that on an average 3·32 per cent. of the prisoners in cellular confinement are brought to the special notice of the alienist inspectors; in 1·09 per cent. the prisoners are found insane and sent to asylums, and in ·58 per cent. their separate confinement is discontinued.

The author concludes from his observations that there is no such thing as a special "prison insanity," the psychoses occurring in prisoners being the same as those developed elsewhere; that the number of cases of insanity under the separate system is not at all, or is only very slightly, above that found in the associated system; and that even this small number might be further reduced by a process of selection which should exclude prisoners mentally unstable.

W. C. SULLIVAN.

Part IV.—Notes and News.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

GENERAL MEETING.

MINUTES of the General Meeting held at the London County Asylum, Claybury, Woodford, Essex, on Thursday, February 14th, 1901.

Present: Drs. Fletcher Beach (President), H. Hayes Newington (Treasurer), A. R Urquhart, J. Wiglesworth, A. W. Campbell, H. A. Benham (Registrar), J. Carlyle Johnstone, F. A. Elkins, A. N. Boycott, H. T. S. Aveline, L. A. Weatherly, F. H. Edwards, J. Peeke Richards, R. Percy Smith, J. R. Whitwell, R. H. Steen, J. McConaghey, Bedford Pierce, Charles Caldecott, J. F. Briscoe, S. R. Macphail, Walter S. Kay, H. Gardiner Hill, J. R. Hill, George O. Hughes, Eric France, Reginald H. Nootт, J. S. Bolton, John C. Anderson, Rosina C. Despard, J. J.

Murphy, Evan Powell, George Amsden, H. E. Haynes, H. Kerr, L. S. Morrison, G. Stanley Elliot, A. S. Newington, G. K. Hitchcock, James Chambers, H. Corner, T. Outterson Wood, T. Seymour Tuke, David Fleck, C. T. Ewart, Emily Dove, Alice H. Boyle, N. H. Macmillan, A. H. Spicer, G. E. Mould, and Robert Jones (Secretary).

Visitors: Rev. R. D. Swallow, Rev. T. Marsden, Rev. F. Mann, Professor W. D. Halliburton, Drs. N. Macleod, G. G. Younger, Messrs. Percy B. Simpson and W. C. Clifford Smith.

Apologies were received from—Drs. Savage, Crochley Clapham, Bond, Rayner, Rolleston, D. Hunter, T. Oscar Woods, Mercier, Douglas, Thompson, Langdon-Down, Gilfillan, Miller, Spence, Finegan, Ernest W. White, P. W. Macdonald, and A. R. Turnbull.

The PRESIDENT referred in graceful and well-chosen words to the lamented death of the late Sovereign Queen Victoria, and read the address which appears on pages 224 and 225, and which the Council recommended to be sent through the Home Secretary to His Majesty the King. Members, all standing, unanimously agreed that the address be suitably engrossed on vellum, and presented as recommended by the Council.

The following candidates were balloted for and elected members of the Association:—James Anderson, Samuel Charles Elgee, William Erskine, James William Evans, William George Fee, C. H. G. Gostwyck, Mary Baird Hannay, Neil Macleod, Alexander Simpson, Robert Pugh, and Arthur Sykes.

The PRESIDENT called upon Mr. Clifford Smith, Engineer to the Asylums Committee, to demonstrate the plans of the proposed epileptic colony, to be built on the Horton Estate, Epsom, by the London County Council, and designed by him on the lines suggested by Dr. G. J. Cooper, L.C.C., in his report upon "A Scheme for the Establishment of an Epileptic Colony."

A paper, prepared by Dr. G. J. Cooper, illustrating the scheme, was read by the SECRETARY in the author's absence, and will appear in the next number of the JOURNAL.

Dr. WIGLESWORTH read a paper upon "A Case of Murder, the Result of Pure Homicidal Impulse" (see page 335).

CHEMISTRY OF NERVE DEGENERATION.

Professor HALLIBURTON, F.R.S., made the following preliminary communication on the "Chemistry of Nerve Degeneration." The work had been carried out in conjunction with Dr. Mott, who was unavoidably prevented by illness from making the communication himself:

We have previously shown that in the disease general paralysis of the insane, the marked degeneration that occurs in the brain is accompanied by the passing of the products of degeneration into cerebro-spinal fluid. Of these nucleo-proteid and choline are those which can be most readily detected: Choline can also be found in the blood. We have continued this work, and we find that this is not peculiar to the disease just mentioned, but that in various other degenerative nervous diseases (combined sclerosis, disseminated sclerosis, alcoholic neuritis, beri-beri) choline can also be detected in the blood. The tests we have employed to detect choline are mainly two: (1) a chemical test, namely, the obtaining of the characteristic octahedral crystals of the platinum double salt from the alcoholic extract of the blood; (2) a physiological test, namely, the lowering of blood-pressure (partly cardiac in origin, and partly due to dilatation of peripheral vessels) which a saline solution of the residue of the alcoholic extract produces; this fall is abolished, or even replaced by a rise of arterial pressure, if the animal has been atropinised. It is possible that such tests may be of diagnostic value in the distinction between organic and so-called functional diseases of the nervous system. The chemical test can frequently be obtained with 10 c.c. of blood.

A similar condition was produced artificially in cats by a division of both sciatic nerves; and is most marked in those animals in which the degenerative process is at its height as tested histologically by the Marchi reaction. A chemical analysis of the nerves themselves was also made. A series of eighteen cats was taken, both sciatic nerves divided, and the animals subsequently killed at intervals varying from 2 to 106 days. The nerves remain practically normal as long as

they remain irritable; this is up to three days after the operation. They then show a progressive increase in the percentage of water, and a progressive decrease in the percentage of phosphorus until degeneration is complete. When regeneration occurs, the nerves turn approximately to their previous chemical condition. The chemical explanation of the Marchi reaction appears to be the replacement of phosphorised by non-phosphorised fat. When the Marchi reaction disappears in the later stages of degeneration, the non-phosphorised fat has been absorbed. This absorption occurs earlier in the peripheral nerves than in the central nervous system.

Specimens, tables, and lantern slides illustrating the correspondence of chemical and histological changes in the nerves were shown to the meeting.

This confirms previous observations by Mott and Barratt in the spinal cord, in which unilateral degeneration of the pyramidal tract by brain lesions produced an increase of water and a diminution of phosphorus in the degenerated side of the cord, which stained by the Marchi reaction.

The PRESIDENT said that Professor Halliburton had spoken of "clouds" overhead in the sky of psychology, but they had let fall many "rain-drops" that afternoon. An important practical outcome from these researches was the possibility of discovering the difference between organised brain degeneration and functional troubles, choline being absent in hysterical paralysis and present in organic degeneration of brain tissue. They offered their hearty congratulations and thanks to Professor Halliburton; their sympathy with Dr. Mott on his illness, and their regret that he was not able to be with them that day. They fully appreciated the compliment to the Association in this early presentation of a preliminary report upon work of the greatest value.

Professor HALLIBURTON, in reply to Dr. Seymour Tuke, said the test was most evident during and after the convulsive seizures in general paralysis.

Dr. BOLTON gave a lantern demonstration upon "The Morbid Changes in Dementia" (see p. 330).

The PRESIDENT proposed a vote of thanks from the members of the Association to the Asylum Authorities for allowing them to meet there, and for the courtesy received. This was unanimously agreed to.

Dr. ROBERT JONES, on behalf of the Authorities of the Asylum, thanked the President and members for their kind expressions, and promised to convey the resolution to his Sub-Committee.

Members afterwards dined together at the Café Royal, Regent Street.

COUNCIL MEETING.

Present: Drs. Fletcher Beach (President), H. Hayes Newington (Treasurer), Harry A. Benham, A. R. Urquhart, G. Stanley Elliot, R. Percy Smith, H. Gardiner Hill, James Chambers, L. A. Weatherly, J. Carlyle Johnstone, A. W. Campbell, A. N. Boycott, H. T. S. Aveline, and Robert Jones (Hon. General Secretary).

Apologies for non-attendance were received from Drs. Savage, Crochley Clapham, Rayner, Bond, Oscar Woods, Mercier, Miller, Spence, Finegan, Ernest W. White, Turnbull, and Macdonald.

Inter alia the Treasurer reported a credit balance of £485 17s. 2d., and stated that the affairs of the Association were apparently more prosperous than at the same date last year.

The Secretary was instructed to prepare a set of Rules of the Association, showing what changes had been made since they were last printed, so that the annual meeting should be asked to give instructions for reprinting.

The Library Committee was constituted as follow:—Drs. Beach, Rayner, Outterson Wood, and Macevoy.

The following were appointed delegates to represent the Association at the British Congress on Tuberculosis:—Drs. Weatherly and France; and £10 10s. was voted for the purposes of the Congress.

Dr. Taylor's (Darenth) application for admission of candidates to the nursing examination was approved.

It was agreed that the Annual Meeting should be held at Cork on July 25th and 26th.

The following Committee was appointed to consider and report on the formation of Colonial branches:—Drs. Beach, Hayes Newington, Urquhart, and Robert Jones.

THE EDITORSHIP OF "BRAIN."

The Annual Meeting of the Neurological Society was held at 11, Chandos Street, on February 14th, the meeting having been postponed from the date originally fixed, on account of the death of Her Majesty Queen Victoria. The address was given by the in-coming President (Dr. W. Julius Mickle) on the subject of "Mental Wandering." The most noteworthy change in the list of officers of the Society is the disappearance of the name of Dr. A. de Watteville from the editorship of 'Brain,' the journal of the Society. With reference to this the Council make the following remarks in their report:

"It is with great regret that the Council announces that Dr. A. de Watteville has resigned the Editorship of 'Brain.' When accepting his resignation, the following resolution was unanimously adopted:—The Council accepts with great regret Dr. de Watteville's resignation of the Editorship of 'Brain,' and desires to take this opportunity of recording the deep debt of gratitude that the Society owes him for the way in which he has conducted the Journal for the past twenty years. The Council feels that parting with Dr. de Watteville is an event of great moment to the Society, for he has not only brought 'Brain' to a high standard of perfection, and secured for it a great European reputation; but even the existence of the Journal at the present time is due to his energetic action at a critical juncture in 1880. Moreover, the Council is mindful that the Society itself took origin on Dr. de Watteville's initiative, at a meeting held at his house, on November 14th, 1885."

We are sure that our readers, many of whom are members of the Neurological Society as well as of our own Association, will fully endorse the regret expressed above. The task of Editorship is very materially lightened for the future by the reputation secured to 'Brain' by Dr. de Watteville's labours in the past, and we may express the hope that it will still be maintained. The new Editor is Dr. Percy Smith, who will be assisted in the selection of papers by a Committee.

THE CONSTRUCTION OF ASYLUMS.

On February 18th, at the Royal Institute of British Architects, Mr. George T. Hine, F.R.I.B.A., contributed an interesting paper on "Asylums and Asylum Planning." In the course of his address, which was read by Dr. Hayes Newington, he said:

Asylums were built for people who had to be watched, nursed, and provided with employment and recreation under conditions inapplicable to sane people, and to provide for all these, while the subjects were under detention, a special knowledge was required to make their lives bearable, and, as far as possible, pleasurable.

Existing types of plan were all more or less developments of the corridor and pavilion systems. In the early days the corridor system, consisting of a long gallery, with single rooms opening out of it, was the only recognised principle on which an asylum could be built. The form was usually quadrilateral. After 1845, while the internal arrangements savoured less of restraint, the principle of the corridor system still prevailed. The first development was an attempt at classification by the introduction of a ward for the sick and infirm on each side of the building; the number of cells was reduced, and more patients were allowed to sleep in associated dormitories. In the seventies special provision began to be made for epileptics, and the Lunacy Commissioners in 1874 published a plan, designed by Mr. Howell, for an epileptic ward, which had been adopted with trifling variations in nearly every asylum designed within the last twenty years. In the decade 1871–80 the pavilion system came into vogue, the transition stage being represented by the asylum at Whittingham. Architects designing asylums should give first consideration to the site. In many of the plans coming under his official

notice the buildings were generally left to adapt themselves to the site rather than the site being adapted to the buildings. Describing the Claybury Asylum, designed by himself, Mr. Hine said the problem to be solved was how to accommodate 2000 patients within reasonable distance of the administrative centre without prejudice to the position and aspect of their wards. The plan adopted was a modification of the *échelon* type, the wards being approached from obtusely oblique corridors, the pavilion system being almost a necessity from the conditions issued. The asylum was built on the top of a hill, falling all ways, and by removing the apex of the mound, representing nearly 100,000 yards of soil, which was well disposed of in filling up a valley to the north of the asylum, a level plateau was obtained, sufficient to allow of half the patients' blocks and the whole of the administrative department being erected at one uniform level, the remaining wards being slightly lower, but in no case more than five feet below the central buildings. At Bexley Asylum for 2000 patients he first introduced the villa system on a tentative scale of three villas holding thirty-five patients each, and a detached hospital for fifty phthisical cases or others requiring isolated treatment. Bexley had proved so satisfactory, that the London Asylums Committee had arranged with him to use the same plans, with a few modifications and improvements, for a second edition of this asylum at Horton.

The London Asylums Committee had found it necessary to add temporary buildings to some of their asylums. These erections, chiefly of wood and iron, provide accommodation for 1700 patients at a total cost of about £173,000, averaging £100 a bed—a costly expedient considering the limited life of these structures.

The system of housing in the acute hospital the curable and incurable cases together was encouraged by the Scottish Commissioners, the incurable patients being generally fitter companions for the curable than the curable patients were. English medical experts, however, held that a hospital totally distinct and apart from the asylum, for the reception and treatment of new cases which were not diagnosed as hopelessly incurable, must prove an important factor in the cure of lunacy. The provision of an acute hospital Mr. Hine considered to be one of the most important evolutions in modern asylum planning. As an illustration of the possibilities of asylum designing, the plans of the new East Sussex Asylum now erecting at Hellingly were referred to.

To understand the first principles of asylum construction, it is necessary to know something of the eccentricities of insanity, and the habits and treatment of the insane. The student in asylum planning should make friends at all opportunities with the medical experts, and study the subject in the light of those whose duty it was to look after the insane. The architect could materially assist the doctor in both the cure and protection of the patient by the careful consideration he gave to the details of planning and construction of the asylum, and in doing this he would find that he must design buildings which gave security without appearance of restraint. The ever-present sense of detention was, in a way, as inimical to cure as were the cells and fetters of the eighteenth century.

In the ideal asylum the most important building must be the acute hospital. Here it was that every patient, unless hopelessly incurable, was admitted, and during his stay in this hospital his future life was probably determined, whether he should recover and go back into the world, or whether he should pass to the main asylum to eke out an unhappy existence at a cost of more than £30 a year to his country. On every ground we could not afford to neglect anything—consideration, care, or money, necessary to produce a building which afforded the doctors the best opportunities for treating and curing their patients. Any money thus spent would prove the truest economy in the end. A well-built asylum, designed on liberal principles, and fitted with all modern appliances, could not be erected for much less than £300 a bed.

Dr. MARRIOTT COOKE, one of the Commissioners in Lunacy, proposed a vote of thanks to Mr. Hine. This was seconded by Dr. URQUHART, and enthusiastically adopted.

The discussion which followed showed that Mr. Hine had raised questions of great importance, and that his record of his work and opinions met with very general approbation and keen interest.

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. *Casey.*

John Edward Casey, 17, was indicted for the murder of Thirza Isabella Kelly, at Stokesby. The deceased was a widow of a good character, who lived alone with her baby in a small cottage. Prisoner seems to have been attracted by her, although they had never spoken. He remarked to two of his fellow-labourers that there was a nice young widow living up the yard, and that day, before the woman was killed, he was seen walking up and down in front of the house, and looking up at her windows. On Sunday, December 23rd, the mother of the deceased spent the day with her, and left her safe in the house at 9 p.m. The same evening the prisoner went with some companions to a public-house about two miles away, and there they drank from 7.15 till 10. Whilst they were there a joke was made about the prisoner, which affected him very much, so that he burst into tears. The prisoner left his companions about a mile from home. On the following morning the deceased was found lying in bed in a pool of blood, with seven incised wounds in her body, and she died the same night. During the day she said that a man, who she thought was the prisoner, entered her room during the night. She screamed and resisted him, and he threatened to kill her, and went round the bed to the side where the baby was lying. Seeing that he meant to injure the baby she sprang out of bed, and there was a struggle, during which he struck her in the body. She then fainted. Upon this the police arrested the prisoner, who said, "You have got the wrong man," but subsequently he confessed, and before the coroner volunteered to give evidence, which was to the effect that when at the public-house he had been chaffed about having killed the pig. This, with the drink he had taken, upset him. He went to the house of Mrs. Kelly and broke in—she screamed and he used his knife. It appeared that two years ago the prisoner, during the absence of his master and mistress, broke into their house, and stole a variety of articles, including women's underclothing, in which he dressed himself. He then killed the pig, scattering part of the body all over the premises. He afterwards hung up the carcass, with the underclothes stuffed inside it. The prisoner was found guilty, and sentenced to death. —Norwich Assizes, the Lord Chief Justice.—*Times*, January 31st.

It is very rarely that a case of sadism comes before the courts, but there are, no doubt, always a certain number of beings thus constituted going about amongst us. Of course, a man whose instincts are thus perverted, is in one sense of unsound mind, and an endeavour was made to exonerate the prisoner on the ground of the insanity; but the plea failed, and in our opinion it properly failed, for, granted the existence of morbid instinct, it is still to be proved that the instinct was uncontrollable. Had the prisoner gratified a normal lust in spite of the struggles of his victim, he would have been properly punished, and there is no reason why he should not be punished for gratifying an abnormal lust. To act on any other system would be to remove the influence of punishment from the very persons who most need it.

Reg. v. *Finstain or Finestein.*

Marks Finstain was indicted for the murder of Deila Bashman; the deceased was a lodger in the house in which the prisoner lived with his wife and three children. On November 5th a police constable heard cries of "murder," and in consequence went into the prisoner's house, and found the dead body of Bashman on a bed in a room on the ground-floor. Her throat was cut. The constable then went upstairs, and found the prisoner with a cord round his neck. He was black in the face and covered with blood. When removed to the infirmary he made the following confession:—"I have killed a young woman. She was in love with me. She wanted me to run away with her. She gave me something to drink in the house. I went out about 9 o'clock, and I came back at 12 o'clock. She asked me to kill her and then kill myself. She laid on the bed without clothes.

She asked me again to run away with her. I told her I loved my wife and children, and could not leave them. She then said, You shall die and I as well. I did it with the bread knife." There were wounds upon the hands of the woman, and one of the prisoner's finger tips was almost cut off. No weapon was found in the room in which the dead body was discovered. At the trial the prisoner gave evidence, and swore that the woman cut her own throat, and that he tried to get the knife out of her hand, with the result that his own hands were cut. Evidence of the prisoner's good character was given. Counsel for the prisoner, and also the judge, commented upon the absence of any discernible motive for the crime. The jury found the prisoner guilty of manslaughter.—Central Criminal Court, December 10th.—*Times*, December 11th.

The plea of insanity was not raised, but the case is introduced here on account of the apparent motiveless character of the crime. There does not appear to have been any evidence at all of unsoundness of mind in the prisoner; there was no evidence of any sadistic motive such as existed in the previous case, and the general impression left by the account of the trial is that the whole truth was not elicited. Motive there must have been, but the prosecution failed to discover it. In this respect the case reminds one of the Slough accident, reported in the last issue of the JOURNAL. It must always be borne in mind that it does not follow, because no motive is discovered, that no motive existed. If the life of the household at 11, St. Anne's Lane, Leeds, for the last twelve months were laid bare, it is probable that the crime would no longer appear motiveless.

Reg. v. *Peat.*

Gustave Reginald Peat, 40, labourer, was charged with the murder of Alice Elizabeth Smith. When the prisoner was placed in the dock the judge asked him if he were defended by counsel. Prisoner replied that he hoped not. He did not wish to be defended by counsel. The judge: Who is going to defend you? —I can defend myself. The judge: You know what you are charged with, I suppose? —Of course I do. I think the doctor knows. The jury were then sworn to try the issue whether the prisoner was of sound mind and fit to plead to the indictment. Dr. Scott, Medical Officer of Holloway Prison, said that he considered the prisoner insane. He thought the prisoner understood to some extent the nature of the act with which he was charged, but not the quality of it. He did not think he was in a fit state to plead or give instructions for his defence or to defend himself. The prisoner objected that Dr. Scott had only spoken to him for half an hour. Dr. Scott said he had studied the prisoner's conduct and correspondence. Prisoner said that Dr. Scott might make a mistake sometimes. If he was accused of murder, why did not they try him? The jury found him unfit to plead. (Mr. Justice Darling.)

It is rare for the trial of so sensible a lunatic to be cut short at this early stage. It would save a great deal of the valuable time of the courts if the plan were more often adopted.

Reg. v. *Blackler.*

Elias Blackler, 49, hair weaver, was indicted for the murder of Louisa Minzon and her twin infant children on September 12th. The woman lived with the prisoner, and was the mother of his eight children, the two younger of whom were born on the 22nd August; last year the woman stayed for a week at Bishop's Stortford. Upon her return the prisoner became jealous and violent, threatening to kill her. After the twins were born he declared that they were not his, and told the woman to take them back to Bishop's Stortford, where they came from. For some time before the murder the prisoner worked but little and drank a great deal. He was constantly swearing at the woman and the twins, and threatening them. At length, on the day in question, he cut the throats of all three. When charged with the murder he said, "I shall say nothing." It was proved that the prisoner's uncle and cousin had each attempted suicide and been confined in the County Asylum, and that the prisoner, who was addicted to drink, complained of hearing voices, and that there was a plot against him. Medical men, whose names are not given in the report, were called to prove that they believed the prisoner of unsound mind.

Upon cross-examination they said that at the time of the murder the prisoner knew right from wrong, as well as the nature of the act he was committing. —Guilty, and sentenced to death.—Ipswich Assizes, November 9th, Mr. Justice Bruce.—*Times*, November 10th.

Upon the evidence this man was undoubtedly insane. The medical evidence was rather remarkable. A medical witness is not usually allowed to give his opinion as to whether the prisoner knew the nature and quality of his act, this being the very question the jury have to try; but it sometimes happens, when the insanity is pretty clear and the judge humane, that a medical witness is permitted to say that in his opinion the prisoner was not able to appreciate the nature and quality of his act. To give a definite opinion that the prisoner was incapable of appreciating these circumstances is, as far as I know, unprecedented, and requires a degree of courage which is unusual. In the face of this evidence the jury could scarcely bring any other verdict, but there was undoubtedly a miscarriage of justice. It is another of the frequent instances of murders committed by lunatics with delusions of persecution who ought not to have been at large.

Reg. v. Wyatt.

Samuel Wyatt, 37, chemist, was indicted for shooting at his father William Wyatt with intent to murder. The prisoner had been three times confined as a lunatic in Bethlem. He had led a very erratic life, and had married a woman of bad character. At two in the morning on July 20th he went to his father's house and roused the inmates. On his father opening the door, the prisoner presented a revolver and fired four times, striking his father once in the jaw. Prisoner then went to Gloucester and gave himself up to the police. Prisoner conducted his own defence. He said that he fired at his father to frighten and not to murder him, and that his father had wrongfully confined him as a lunatic, and he merely shot him that this matter might be brought into a court of law and false charges of lunacy cleared up. Dr. Craddock gave evidence, and said that at the time of the crime the prisoner did not know the nature or quality of his act nor that it was wrong. The prisoner examined him with a view of showing that he himself was sane. The judge said it was clear that the prisoner's idea that he had been wrongfully confined as a lunatic was a pure delusion; and even if it were not, it did not justify him in shooting his father.—Guilty, but insane.—Gloucester Assizes, Justice Lawrence.—*Times*, November 19th.

This is another of the continually re-occurring instances of crimes committed by lunatics, who ought not to be at large. The man was known to be a lunatic with delusions of persecution. He was allowed to be at large, and the natural consequence followed. It would be very instructive, though we fear it would be impracticable, if a return could be obtained showing the number of preventable murders committed every year by insane persons of this class. If the figures could be obtained and brought before Parliament, it is certain that the country would be appalled, and the Lunacy Act at once amended in a very drastic manner. A colliery explosion or a shipwreck involving the loss of 100 or 200 lives at one blow, excites the whole nation with horror and pity, but this continual drain of lives is not sufficiently dramatic to attract attention. If each reader of this JOURNAL would collect, each for his own locality, the cases which come under his notice, a body of figures would soon be obtained which would compel the attention of legislators to the subject; but so long as members of this Association take so little interest in the matter that they will not even take the trouble to forward reports of trials in which they appear to the editor, we cannot expect the public at large to take any interest in this subject. It is all very well to exclaim against the remissness of the Legislature in dealing with these and other subjects in which we are interested, but the Legislature helps those who help themselves, and so long as alienists are lethargic and indifferent they have no right to complain that the law remains unaltered. As it is, it is a little short of a scandal upon our branch of the profession that these murders and attempts at murder should be as frequent as they are.

Reg. v. Watts.

Frank Herbert Watts, 36, painter, was indicted for the murder of his wife. Prisoner had always lived on good terms with his wife and was of a peaceable disposition except when suffering from drink, to which he was much addicted. On July 6th he returned from his work in the middle of the day, and seemed to the neighbours to be very strange in his manners. The same evening he cut his wife's throat and his own. The woman died and the man was very severely injured. Two days afterwards he again attempted suicide by tearing off the bandage from his throat. Dr. Deas said that he examined the prisoner on October 25th and again on November 3rd, and that he was sane upon these dates, but had evidently been suffering from delusions. The delusions might recur, and then the prisoner would be dangerous, and might commit a crime again. There was insanity in the prisoner's family. Prisoner's counsel did not address the jury, the Judge seeming to have intimated that this was unnecessary; and after his Lordship had addressed the jury, they immediately brought in a verdict of guilty but insane.—Mr. Justice Ridley.—*Times*, November 17th.

The prisoner seems to have shown no evidence of insanity before the day of the crime, and considering his drunken habits he must be reckoned very fortunate. The Judge evidently took an extremely lenient view of the case, influenced most probably by the evidence of Dr. Deas.

Reg. v. Prescott.

George Prescott, 26, attendant at the Crumpsall workhouse, was indicted for the murder of Francis Southgate. Southgate, a general paralytic, was one of 150 patients under the care of Prescott, who was night attendant in the workhouse, and was assisted in his duties by one pauper helper. Southgate was noisy in the night, and Prescott compelled him to be quiet by the very effectual plan of passing the loop of a towel round his neck, putting a poker through the loop of the towel, and twisting it up like a tourniquet. Post mortem, death was found to be due to asphyxia, and the cartilages of the larynx were fractured. The evidence was as clear as possible, and the prisoner was convicted of manslaughter and sentenced to seven years' penal servitude.—Manchester Assizes, Mr. Justice Darling.—*Manchester Guardian*, November 15th.

The verdict and sentence were just, no doubt, but what is to be said of the responsibility of the guardians, who placed one man in charge of 150 "imbeciles," of whom thirty-two were epileptics?

Reg. v. Proctor and Duncan.

James Proctor and John Duncan were placed on trial on a charge of culpably causing the death of Robert McIntyre, a patient in the Glengall Lunatic Asylum, by throwing him down, kneeling on him, and kicking him. The charge was proved chiefly by the evidence of the patients in the asylum, several of whom were called both for the prosecution and the defence. The deceased was subjected to very brutal violence, but the jury strongly recommended the prisoners to mercy, and they got off with only three months' imprisonment each.

Rex v. Pepper.

George Pepper was indicted for the murder of Mary Duffy under very unusual circumstances. The couple went to a lodging-house for the night, and were allotted a bed in a room in which two other couples also slept. The night passed peacefully, but in the morning the other couples were aroused by the cries of Duffy, and saw the prisoner leaning over her, his hand going backwards and forwards and blood gushing from her throat. When arrested prisoner said, "I admit it all, drink was the cause of it." He also said he had been drinking for three or four weeks before, and did not know what he was doing. The prison surgeon said there was nothing in the demeanour of the prisoner, while under his charge, to suggest that he was insane. He knew, however, that the prisoner had been in a lunatic asylum; and taking this into consideration with the facts of the motiveless character of the crime—and it was committed in the presence of several

other people,—he should say at the time of the crime the prisoner was insane. In summing up, the Judge is reported to have said, "I believe there is no power to detain the patient in any asylum in such a case (that is when the acute symptoms have subsided), even although it may be a case of recurrent mania, and that is really a terrible state of things, as this case proves."—Guilty but insane. Dublin Assizes, Mr. Justice Kenny.—*Irish Times*, February 9th.

It is very unusual for a murder to be committed in the presence of eye-witnesses, and the whole character of the crime points to insanity. In isolated cases like this a Judge can see and appreciate the stupidity of the law, which not only allows but compels the discharge of a man who is known to be a danger to the community; but the frequency of the cases and the gravity of the danger is known only to alienists, and it is their duty to bring it before the public and to clamour for legislation until they get it.

The Beecham Case.

Mrs. Beecham was a certified patient in St. Andrew's Hospital. She had, while the subject of a judicial reception order, instructed a solicitor to take proceedings for a judicial separation from her husband. A petition was accordingly prepared, and when the solicitor went down with a commissioner of oaths to get her to swear the necessary affidavit, Dr. Bayley, the superintendent of the hospital, refused to allow them access to the lady, alleging that he was acting on the authority of the Commissioners in Lunacy. Application was then made to the Court, and notice was given to Dr. Bayley to show cause why a writ of attachment should not issue against him. In the meantime, Mr. Beecham had removed his wife to his own home, and a similar notice was served upon him. The Commissioners in Lunacy were applied to, and admitted that they had instructed Dr. Bayley to act as he had done. They put in no appearance, but stated that they would obey any order that the Court might make. In the event, it was agreed that Dr. Savage, who had seen the lady, should be consulted as to the best mode of bringing her up to town to see the judge privately, and under this agreement the action against Dr. Bayley was not pressed.

It is evident that Dr. Bayley was placed in a very difficult position by the litigation going on between Mr. and Mrs. Beecham. Under the Act of 1890, Section 5 (3), the petitioner undertakes to visit the patient once at least in six months, and it would seem that this provision gives him the power to visit as often as he chooses. It would be a very unwise step on the part of the custodian of an insane person to prevent the access of the petitioner to the patient, and it would seem that in doing so he would bring himself within the scope of Section 32, which runs thus:—"Any person who obstructs any Commissioner or Chancery or other visitor in the exercise of the powers conferred by this or by any other Act, shall for each offence be liable to a penalty not exceeding fifty pounds, and shall also be guilty of a misdemeanour." It seems clear that whatever the rectitude or good taste of Mr. Beecham in visiting his wife under the circumstances, Dr. Bayley had no power to prevent him.

But the chief grievance against Dr. Bayley was not that he gave access to Mr. Beecham, but that he refused access both to the lady's solicitor and to the Commissioner of Oaths, whom he took with him. In thus refusing, Dr. Bayley was acting under the direct instructions of the Commissioners in Lunacy. In 1896 the Commissioners issued to the superintendents of institutions for the reception of insane persons a circular in which was expressed the opinion that "superintendents . . . ought not in any circumstances to permit, or knowingly to afford facility for, but ought, on the contrary, to prevent, the execution or signature by any such person of any document other than a will or codicil affecting his or her property or income." It is true that a petition for a judicial separation is not a document directly concerned with property or income, but it cannot be said that it does not affect property or income; and he would be a bold man who would venture to base his action upon the supposition that the Courts would hold that it did not affect her property or income. Under the circumstances Dr. Bayley took the proper and common-sense course. He consulted the Commissioners as to whether he was to permit access or no, and the Commissioners instructed him to refuse access.

"A PRIVATE HEALTH ESTABLISHMENT."

The *British Medical Journal* of the 2nd March extracts from the *Caterham Chronicle*, etc., the following particulars of an inquest recently held near Limpsfield concerning the death by suicide of a lady in "a private health establishment" kept by Dr. and Mrs. Sherard. The deceased had been found strangled in bed.

In his evidence, her husband stated that she had seemed better on Sunday, January 20th, and it was arranged she should come to her home on the following Tuesday; but on that day she telegraphed that she thought she had better not come, and wrote a letter to her sister in which she said she felt very bad, and added, "they tell me I'm delivered, though I don't feel it. . . . I wish I could enter into the news about the Queen. Pray for me; forgive all that has passed. Am sorry for my ingratitude." On the following Sunday, a few minutes after arriving to see his wife, he was called upstairs by Mrs. Sherard, who said his wife had a piece of string around her neck. The medical man then called in to see the deceased gave evidence that, in his opinion, the cause of death was strangulation; there were purple lines round her throat, which might have been caused by string; the weight of the head was sufficient to cause strangulation.

In his evidence, Dr. Sherard is reported to have stated that when the deceased came to him "there was no condition made as to her being a patient; she came as a sort of visitor——"

"Do you have any sort of arrangement as to payment?—No arrangement at all.

Of course you expect to get some return?—No doubt Mr. R— may pay. I should think it very likely.

You are dependent upon his generosity, are you?—No; I have not thought about it.

Then you are really going to charge him?—I have never thought about it. No; I do not think so. People give me sums when they are cured.

Have you ever noticed any suicidal tendency in the deceased?—Once I heard her speak of the depression she had.

Was there extra supervision in consequence?—No; there was always the same supervision.

Although she had threatened to commit suicide?—I never heard her threaten to commit suicide. She said she felt disposed to. I always knew that would be the line she would probably take.

A person in that condition, do not you think, would want more looking after than other people?—You cannot do it. You cannot look after a person all day. Of course I had a companion with her——"

Again, at the adjourned inquest:

"You say that something was bearing on Mrs. R—'s mind, and yet you could not certify her as insane?—That is so. She said to me once, 'I feel so bad that I feel I must commit suicide.' However, she made no attempt, and I could not take the statement as a sufficient reason that she was insane. This was two weeks before her death."

The verdict of the jury was "That the deceased committed suicide by strangulation whilst of unsound mind."

In summing up, the Deputy Coroner remarked that some of the witnesses had given their evidence in a way they ought not to have done (indeed, this led to several scenes in the court during the evidence of the husband and Mr. and Mrs. Sherard); and added that it was possible the Commissioners in Lunacy might institute an inquiry.

The above extracts speak with no uncertain sound. From part of the evidence it appears that this is not the first time that a patient under the same care has committed suicide. In view of the remark of the Deputy Coroner concerning the possible inquiry by the Commissioners in Lunacy, we refrain from comment.

The powers and means of the Commissioners for inquiry into, and, if necessary, regulating the care and treatment of persons mentally affected, require to be strengthened.

ASYLUM NEWS.

London County Asylums.

At the last meeting of the County Council a report was presented from the Asylums Committee at Banstead which stated that Dr. Claye Shaw had resigned his appointment after twenty-four years' service. The Committee bear testimony to his important and valuable services, and express regret at the loss of so able an officer. A full superannuation allowance was voted to him. The same report also contained the sad information that Miss Orange, M.D., one of the Assistant Medical Officers at Claybury, had been compelled through confirmed illness to vacate her appointment. It appears that Dr. Orange's health had been materially damaged by assaults perpetrated by patients on two occasions, resulting in severe head injuries. A liberal superannuation allowance was granted, the Chairman of the Committee expressing the hope that, despite the grave report, some useful work might yet be in store. Dr. Collins said that he thought this report should not be allowed to pass in silence. He had sat under Dr. Claye Shaw as a lecturer at St. Bartholomew's, and bore emphatic testimony to his eminence as an alienist, as well as to his administrative skill. He expressed the hope that the mature experience of Dr. Claye Shaw would be given to the profession in the shape of some addition to the literature on the pathology of insanity, and added that he felt sure that Dr. Shaw carried into his retirement the good wishes of the County Council. Dr. Collins also bore testimony to the work of Dr. Orange, who, he said, came of a well-known medical family, and he expressed the general regret at the sad illness which had interrupted so promising a career; he added that Londoners should remember the constant valuable services, often at the peril of their health and lives, that the staff of the asylums rendered so ungrudgingly to the community.

New Asylum for Middlesex.

The foundation-stone of a new lunatic asylum for the county of Middlesex was laid on Tuesday by the chairman of the Asylum Committee. The site of the building is 440 acres in extent, and was purchased at a cost of £45,000. It is situated just outside St. Albans. The plans are by Mr. Rowland Plumbe, who has designed the buildings in the pavilion style to accommodate 1150 patients, 100 of whom will be in a separate building, which is to be used only by paying patients. A hospital to accommodate 234 persons is included. The estimated cost of the buildings alone is £358,100, or £311 per patient.

Edinburgh District Asylum.

A lively newspaper correspondence has been in progress regarding the new asylum proposed to be erected at Bangour. It would appear that the cost of construction upon the Alt-Scherbitz plan has laid hold of the imagination of certain of the ratepayers, and comparisons have been made with the expenditure per bed in other localities. We understand that the Bangour buildings, exclusive of the site, etc., are estimated by the architect's measurer to cost £400, compared with £431 at Gartloch.

The Chairman of the District Board has made a statement relative to the whole question, and we hope to have an opportunity of reproducing it in due course. It is of great importance that there should be a complete answer to criticism at such a crisis. In adopting the village type of asylum, it was expected that the ratepayers would benefit by the moderate cost of the buildings, and that the patients would benefit by an improved system of construction. It will be most unfortunate if the Parish Council are compelled to depart from their intention of leading the way in this matter, and of adapting the principles of Alt-Scherbitz to Scottish conditions.

Perth District Asylum.

The increase of the patients at Murthly has given rise to the usual dangers and discomforts. Dr. Bruce presented a report to the Committee, showing that the number of patients had increased by forty-seven during the previous year, and stating that it was impossible to explain the facts in face of a diminishing popula-

tion in the district. The Committee accepted Dr. Bruce's statement that the senile admissions and the accumulation of chronic cases are the two factors at work, and proceeded to apply a remedy by urging Parish Councils to relieve the asylum of the care of senile cases, and those who are not strictly "paupers." It does not appear probable that the asylums will be relieved as the Committee desire, for a great change has come over the country in the feeling towards these institutions, and the lower middle class will not, generally speaking, endure the miseries of the private care of aged, fatuous, and troublesome dements in their crowded homes. As for the exclusion of all who do not bear the "pauper" brand, it is late in the day to raise that question, seeing that it has been proved that four fifths of the State-supported insane are not of that class. Scotsmen have had a legitimate pride in the title "District Asylum," which is the term used in the Lunacy Acts; but, as reported by the 'Dundee Advertiser,' it has been the fate of Murthly to be doubly miscalled by its own Committee when they write it down the District Pauper Lunatic Asylum. They further fortify their position with the opinion of Dr. Forbes Winslow, who "censures the policy of extending the accommodation;" but, after all, they indicate that they might sanction the erection of an hospital, which would be useful for the treatment of infectious diseases and phthisis, which last Dr. Bruce has shown should be treated separately.

Insanity in Fife.

The same cry for more accommodation comes from the Fife District Asylum, and the Dunfermline Parish Council, desirous of relieving the pressure, applied to the General Board of Lunacy for a licence enabling them to provide wards in their Poorhouse for the care of insane patients. The Secretary of the Board, however, informed them that he was directed to state that, while no general resolution on the subject of granting new licences to lunatic wards in poorhouses has been come to by the Board, their policy has for several years been against licensing such wards; and further, that there is no probability that they would license lunatic wards in connection with Dunfermline Poorhouse.

The Chairman of the Parish Council said he supposed it was useless in the meantime to take any further steps, because it was evident that the Lunacy Board intended to put their foot down upon the proposal. This was not an isolated case of the kind, and he would say this, that the powers granted by Act of Parliament to some of those bodies was in excess of the intelligence they possessed to administer them. These be brave words, yet hardly persuasive.

Fire at Colchester Asylum.

An alarming fire occurred on the 27th December, but the flames were happily overcome without injury to the patients.

LANCASHIRE INEBRIATES' ACTS BOARD.

We learn from the *Manchester Guardian* that at a meeting of the Lancashire Inebriates' Acts Board, under the presidency of Sir J. T. Hibbert, the Sites Committee reported that their offer of £17,000 for the Brockhole Estate had been accepted. The Committee considered that every effort should be made by the Board to get their plan prepared, so that the buildings might be commenced as early as possible.

The report of the Sites Committee was unanimously adopted, and it was decided that, as the duties of this Committee had now been fulfilled, another committee, to be called the Works Committee, should be appointed, this latter to deal with the preparation of the necessary plans and estimates and the general direction and supervision of the works.

AN INEBRIATES' HOME FOR YORKSHIRE.

At the January meeting of the West Riding Council, at Wakefield, a resolution was adopted approving of a scheme for the establishment of a reformatory for inebriates by a joint committee representing the county councils and the county boroughs of Yorkshire. It is proposed that the reformatory shall provide at the outset for sixty males and forty females, and it is estimated that the cost will be £300 per bed, the proposed initial outlay thus being £30,000.

TABLE SHOWING PENSIONS GRANTED SINCE 1892.

(In continuation of Dr. Murray Lindsay's List, 'Journal of Mental Science,' vol. xliii, p. 430.)

No.	Asylum.	Name.	Age on retirement.	Length of service. Years.	Length of service. Months.	Total value of office.	Pension granted.	Proportion of pension to value of office.	By whom granted.	Date.	Remarks.
						£	£				
45	Warneford	Dr. J. B. Ward	56	25	—	1000	400	2/5	Committee	1897	Ill health.
46	Montrose	Dr. J. Howden	66	40	—	1250	671*	33/50	Managers	1897	Ill health.
47	Suffolk	Dr. Wilson Eager	51	20	3	1000	350	7/20	County Council	1897	
48	Cornwall	Dr. Adams	65	40	—	780	507	13/20	,,	1897	Failing health.
49	Northampton	Dr. Greene	55	19	6	1440	850	17/30	,,	1898	Ill health.
50	Holloway	Dr. S. R. Philipps	51	15	—	2500	1000	2/5	Committee	1899	Ill health.
51	Lancaster	Dr. Harbinson	48	23	—	470	220	11/23	Asylums Board	1899	Assistant Medical Officer.
52	Devon	Dr. G. S. Saunders	63	36	—	1125	742	33/50	County Council	1899	
53	Durham	Dr. R. Smith	68	43	—	1500	700	7/15	,,	1899	Ill health.
54	Broadmoor	Dr. J. B. Isaac	51	24	7	550	284	31/60	Treasury	1899	Deputy Superintendent.
55	Sussex	Dr. C. E. Saunders	56	12	—	1200	600	1/2	County Council	1900	Ill health.
56	3 Counties	Dr. E. Swain	56	25	6	1300	500	5/13	,,	1900	Ill health.

* Includes £105 as consulting physician.

AN INEBRIATES' HOME FOR GLASGOW.

The mansion-house at Girgenti, near Irvine, which has been acquired by the Glasgow Corporation as an inebriates' home, has undergone considerable alteration and repairs. The home, which was purchased at a cost of about £7000, is to be managed by a committee selected from members of the Glasgow Town Council. It is expected that the treatment of patients may extend from three months to two years, and they will have employment in the garden and farm, as well as following their former trades, while work will be provided for women in the laundry and dairy. Girgenti lies in a nice spot four miles distant from the nearest town, consequently there will be no temptation offered to patients.

We understand that twelve persons—eleven women and one man—were in the end of December remitted to the Sheriff at Glasgow to be dealt with under the Inebriates' Act.

THE TREATMENT OF INEBRIATES.

A conference of representatives of societies for the aid of discharged prisoners, managers of voluntary homes for inebriates, and governors and chaplains of prisons, was held at Birmingham. In the course of a discussion upon homes for inebriates the Rev. G. P. Merrick, speaking on behalf of the Prison Commissioners, is reported to have said that he was at liberty to state that the Government was prepared to provide a prison building for the reception of inebriates, but they had left the matter to the discretion of the county councils and other local authorities. Those bodies, however, had not taken up the matter to the extent which was anticipated. The law would certainly step in if the local authorities did not make the necessary provision.—*Times*, November 2nd, 1900.

ELMIRA REFORMATORY, NEW YORK STATE.

The New York Correspondent of the *Lancet* states that in this large reformatory there has been within the past year and a half a complete change in management with a corresponding somewhat radical alteration in the methods pursued. The twenty-fifth annual report of the board of managers has recently been presented to the New York State Legislature, and referring to "discipline" the report says:—"Since the statement in the last annual report that flogging had been abandoned at Elmira some sincere friends of the reformatory have expressed the fear that its discipline would deteriorate. The board has not shared that fear." The maintenance of the educational system by the present board has been seriously questioned by those who profess to see in the withdrawal of Mr. Brockway the first step towards the destruction of the fabric which he has laboriously created. The board finds in this system much to admire and uphold, something to criticise and modify, and something to condemn. The gross number of inmates who have been on the books during the past twelve months is 2050, of whom 666 were received during that period and 774 were dismissed, producing a daily average of 1365. The efficient control of so large a reformatory is an undertaking which will tax the brains and energies of the most active and intelligent superintendent and staff. It remains to be seen how the new methods will work. The result will be a matter of much interest to philanthropists everywhere.

A NEW THEORY OF HOMICIDE.

Apropos of the assassination of King Humbert, says the *Gaulois*, a German statistician, who is also an influential member of the Berlin Society for the Protection of Animals, tries to prove that those nations who love animals the most are those least inclined to commit the crime of homicide. In support of his contention he says that in England and Ireland there are only 6 murderers for every million inhabitants, in Germany 11, in Belgium 14, in France 16, in Austria 23, in Hungary 67, in Spain 83, and in Italy 95. These figures correspond with the consideration of the various peoples for dumb beasts. In no country of the world, he adds, is the cruelty of the common people towards animals so great as in Italy, although it may be true that the warm southern blood accounts for much in the way of murder.

THE INTERNATIONAL CATALOGUE OF SCIENTIFIC LITERATURE.

All the arrangements for the international catalogue of scientific literature are now complete. The work of cataloguing has begun, and it is intended to include in the catalogue all the literature published after January 1st, 1901. The Royal Society will act as the publishers of the catalogue, and a code of instructions for the use of all those who are taking part in the preparation of the catalogue has been drawn up. The catalogue will be issued under the superintendence of an executive committee consisting of four delegates of the Royal Society—Sir Michael Foster, Professor A. W. Rücker, Professor H. E. Armstrong, and Dr. Ludwig Mond, and of the representatives of the four largest subscribers to the catalogue—France, Germany, Italy, and the United States.

Full details respecting the work and publication of the index could be obtained by writing to the Director of the Central Bureau of the Catalogue, Dr. H. Foster Morley, 34, 35, Southampton Street, Strand, London, W.C.

THE INTERNATIONAL PSYCHOLOGICAL INSTITUTE.

The English Branch is now being organised with Dr. Edridge-Green as Honorary Secretary. We trust that this important Institute will be widely and generously supported. The *Journal* is now fairly afloat, and promises well. Mr. O. Murray's letter in our last number shows that there is no connection between this Society and the Institute of Psychical Science which was referred to in the JOURNAL for October. Dr. Edridge-Green has sent us the subjoined circular letter:

"It has been proposed to form a branch for England of the International Psychological Institute.

"It is remarkable that the subject of experimental psychology has, until later years, been almost entirely neglected, as every scientific investigation must be modified by the personal peculiarities of the observer. An obvious example of this is to be found in a colour-blind person, by whom it is impossible to judge of the merits of colour in a picture, however striking they may be. So much has the subject been neglected that we are quite unable to answer even such a simple question as whether the power of a perceptive centre can be improved by long practice, or to what extent the perceptions vary at different periods of life! The immediate advantage to education of the knowledge of these facts is evident. All men assume (and only after demonstration recognise that it is not so) that the perceptions of others are similar to those experienced by themselves, and it is of very great importance to knowledge to ascertain the exact manner in which these perceptions differ.

"The Society will not be limited to the Medical Profession, as it has hoped that other scientific men in allied branches of knowledge will join, so that the investigation of any definite fact may be as thorough as possible, and that the subject may be viewed from every possible side.

"The chief object of the Society is to facilitate, in a purely scientific manner, the experimental study of psychology and of psychical phenomena, by the installation of laboratories, equipped with suitable apparatus (biometers, magnetometers, spectroscopes, registering instruments, photographic apparatus, etc.), and also by the creation of a periodical, which shall publish accounts of the experiments made in the laboratories, with their results, and the writings of collaborators interested in psychical studies.

"It might be added that this fascinating study can be pursued by any person in any place, as introspective experiments can always be carried out without the aid of elaborately equipped laboratories; but at the same time it will be obvious to anyone interested in the same that the establishment of those same laboratories, with their valuable scientific instruments at the disposal of all researchers, will accomplish much which would otherwise be impossible; while the value of the journal will be very great.

"Should you feel disposed to give your support to this Society, I should be glad to hear from you on the subject, and would forward you the *Journal* and all further particulars. The annual subscription is one guinea, and at present there

is no entrance fee. The meetings of the English Branch will be held in London, and there will be Congresses in Paris every few years."

PUNISHMENT OF WEAK-MINDED PRISONERS.

We find the following paragraphs in the Annual Report of the Howard Association for the year 1900:

"There was lately laid before the Howard Association a detailed and serious complaint, which appeared to carry some evidence of being, at least in part, founded upon fact. It related to the punishments of bread and water inflicted, under existing rules, upon prisoners certified as '*weak-minded*,' 'epileptic,' or 'insane,' and it complained of a number of such punishments being repeatedly inflicted upon a few individuals, whose names and circumstances were given.

"On the matter being brought by the Howard Association before the Prison Commissioners, the latter thoroughly investigated the case, and communicated to the Association, in full detail, the results obtained.

"The Committee, from their own previous acquaintance with the management of the prison in question, had good reason to believe that no charge of inhumanity could be attached to the *personal* action of the local authorities—but the very reverse.

"And the investigation afresh confirmed that impression. For it was found that, out of the class of 'weak-minded' inmates of the establishment, considerably more than half had not been reported once, for any misbehaviour, during a period of six months. It was also shown that the officers in charge of that class treated them kindly, as well as firmly.

"But the important point which the investigation in question did *not* disprove was this—the fact that the *existing rules impose it* as a duty upon the officers to punish partially or wholly *insane* and epileptic prisoners for such offences as 'foul language,' for example; and that such punishments amount *occasionally*, but not often, to from thirteen to fifteen days on bread and water, during a year.

"No question is here raised as to *sane* prisoners, or wilful and responsible offenders. The Howard Association's Committee have never taken the view that prisoners are to be pampered, or to be exempted from justly penal treatment.

"But with the wish to make every allowance for the difficulties of administration, and with a hearty and thankful recognition of the great improvement which has taken place of late years in the *personnel* of British prison management, the Committee cannot but feel that the existing *rules* and *prescribed system* impose an unduly harsh *régime* upon the particular class of 'weak-minded,' who are not only partially insane, but some of whom are admitted to be actually so.

"In well-conducted asylums, and even in *Criminal* Lunatic Asylums (as *distinct* from prisons), a reasonable latitude is rightly allowed in regard, for example, to foul language. Recently, whilst the Secretary of the Howard Association was walking around the Scotch CRIMINAL LUNATIC ASYLUM at PERTH, in company with the Governor, one of the inmates accosted the latter in an offensive manner, bordering on the 'foul' or obscene. But no notice was taken of it, and the offender quietly walked away. All around, in the same yard, were murderers and other insane persons of violent and dangerous habits. But they are treated, at least with regard to *language*, with that wise consideration which makes allowance for their natural lack of self-restraint, or for their irresponsibility, except where actual injury to others might result. Tact and kindness, with firmness and admonition, or even silent disregard for verbal breaches of order, suffice to maintain good discipline, and, indeed, to promote it far better than by dietary and other punishments. Similar wisdom characterises the administration of the other Criminal Lunatic Asylums, namely, Broadmoor in England, and Dundrum in Ireland.

"Hence it may fairly be urged upon the authorities that prisoners who are, after competent medical examination and observation, pronounced to be 'weak-minded' or epileptic (and certainly those who are insane) should, if retained at all in a prison, be governed by the rules, and in the manner, of Lunatic Asylums.

"This matter requires the serious consideration of the Commissioners of Prisons and also of the Home Secretary."

INSANE PRISONERS.

While the 'Howard Association' complain of punishments awarded to weak-minded prisoners on evidence which appeared to have been partly founded on fact, it may be useful to glance at the last report of the Prison Commissioners, where reference is made to cases of insanity. The whole number of these for the year ending March, 1900, was 116, being 21 fewer than in 1899, 34 fewer than in 1898, and 48 fewer than in 1897. Of the 116 cases certified, 78 were insane on reception; of the others, 17 showed symptoms of insanity within one month, 13 within three months, 5 within six months, and only 3 after six months. The daily average number of all prisoners was 14,500.

MEDICAL FEES IN LUNACY.

The guardians of the poor at Yarmouth are of opinion that half a guinea is an adequate fee for each medical certificate granted for the detention of pauper lunatics in asylums. The local medical practitioners refuse to accept less than a guinea, when they enter on the serious responsibilities which the Lunacy Acts entail upon them. We should not have been surprised if they had decided to raise the amount to twice the modest sum which custom has sanctioned. The Legislature has taken elaborate care in this matter, considering the interests of the alleged lunatic, the interests of the community, but in no way determining the pecuniary interests of the ratepayers. No doctor proceeds to the examination of an insane person without a lively sense of the importance of coming to a right decision on the questions submitted to him. He must be prepared to answer for his findings before the law. He has to decide by a personal examination, which may cost him much time and trouble, if the person is of unsound mind, if he is a fit and proper person to be detained in an asylum, if he is in a fit state for removal to an asylum. These are not perfunctory questions to be answered haphazard. The wonder to us is that, after the experience of the medical profession in courts of law, the work is undertaken at all. Did we not record in October last how witchcraft was recognised by the laws of England, and how it bore upon the case of Dowling *v.* Dod?

CORRESPONDENCE.

ARTIFICIAL FEEDING.

(Reply to a paper by Dr. Rambaut in the JOURNAL for January, 1901, by A. H. NEWTH, M.D.)

Dr. Rambaut, of the Richmond Asylum, has recorded the deaths of two patients who had been fed by the artificial method I mentioned in the JOURNAL for October, 1899. He seems rather hastily to conclude that because he tried it on these two very unpromising cases, and because they both died from gangrene of the lung, therefore this ought to be a warning against using the method.

The patients had previously been fed with a tube.

Now it is the experience of the medical officers of the Haywards Heath Asylum, where the method I described is in constant use, that patients who had previous to admission been fed with a tube were liable to gangrene of the lungs. This experience extends for over thirty years.

In an article by Dr. Urquhart (JOURNAL for 1895, p. 276) he relates how, in the early years of Professor Meyer's professional life, it was the custom in Germany to use an apparatus for forcible feeding almost constantly. But on account of the frequency of lobular pneumonia, due to the introduction of small quantities of food into the larynx by this means, it was given up and the mortality decreased.

I had a sane patient under my care who died from lobular pneumonia. He had been in the habit of using a tube for some time to wash out the stomach for the relief of chronic catarrh of the stomach. There might very possibly have been a connection between the lung mischief and the use of the tube.

It is very possible that the method I describe is less free from the danger of introducing food into the lungs than that with a tube. The spasmodic action of the larynx would naturally expel any foreign body, a violent fit of coughing giving warning that the food has "gone the wrong way." The presence of a tube would

have a tendency to prevent, to a very great extent, this spasmodic action. There would be an inability to cough up the food out of the trachea.

Food or other foreign bodies very probably enter the larynx during the act of inspiration immediately on withdrawal of the stomach-tube, and are not forced into the lungs whilst feeding.

The introduction of the tube is not without its dangers, and especially when the patient violently resists its use. Several deaths have occurred from suffocation whilst the tube was being used. Dr. Yellowlees, in the JOURNAL for 1885, p. 284, describes a case of sudden spasmodic syncope terminating fatally during feeding with the stomach-pump.

There is just the possibility, though I have no doubt every precaution was taken in the matter, that the method might not have been done quite properly in the cases recorded by Dr. Rambaut. It requires to be most gently and slowly performed. The food ought only to be liquid, previously sterilised and given in very small quantities at a time. It might be of advantage, and possibly prevent any septic effect in the lungs if the food did accidentally enter them, that a small quantity, five or ten grains, of boracic acid should be mixed with each dose of the food. This acid can be taken for a long time in fairly large doses without the slightest ill-effects. I have known patients take it regularly for some years, for cystic trouble, with benefit.

Of course there is a certain amount of risk in all methods of artificial feeding. The thing is, whatever form is used to do it as seldom as possible, and not give much food at a time. If the patient is in fair bodily condition, quiet, and in bed, which is the proper place for those who refuse food, very little nourishment is required to sustain life. After serious operations, as ovariotomy, for instance, the patient is practically starved for some time; not even nutrient enemata are given. In ulceration of the stomach abstinence from food is imperative. Therefore an insane patient may do without food for some days, probably with benefit. Then the chances are that in a short time the patient will voluntarily take food if it is placed within his reach.

There are cases where it is clearly unadvisable to employ the method of artificial feeding by the mouth, such as where the reflexes do not act, and consequently there would be no expulsive effect if the food entered the larynx.

I am still strongly of opinion that the method of feeding I described, but which, by the way, is not mine, is a satisfactory method. Dr. Rambaut's two unpromising cases do not at all shake my belief in it, when I consider the several thousand cases in which it has been employed at the Haywards Heath Asylum successfully.

If Dr. Rambaut would like particulars, I am sure Dr. Walker, the present Superintendent of the asylum here, would kindly furnish him with every information as to the proper way to carry out this method, and as to the results that have attended its use. I have not had for several years any experience of its value in asylum work, but in private practice I have repeatedly found it valuable, and have had no ill-effects from its use.

Before condemning this method of feeding it must be proved to be unsatisfactory in cases where the tube has not been previously used, where the heart and lungs are healthy, and there is no possibility that the gangrene has been occasioned by metastatic infarction caused by an embolus, which is not infrequent in broken-down constitutions, especially in those who have been drunkards. The signs of hæmorrhagic infarction and metastatic deposits in the lungs are very obscure. The patient may have the disease for weeks or months before the characteristic signs show themselves, and especially is this so in the case of mentally afflicted persons, from whom it is difficult to get reliable information as to their diseases.

From Dr. GEORGE PARDO, First Assistant in the Royal Clinic of Psychiatry of Rome.

On reading Dr. Ferrari's article on the "Progress of Psychiatry" in the last number of your much-appreciated JOURNAL, I was rather unpleasantly surprised by the errors into which he had fallen. At present I would only refer to Dr. Ferrari's omission in reference to psychiatry in Rome, where there is a Clinic of Psychiatry entirely independent of the asylums for the insane. The clinic has been directed since 1896 by Professor Sciamanna, who is one of the best-

known neuropathologists in Italy. Professor Sciamanna has been, since 1882, Professor of Neuropathology in the University of Rome, and all the physicians whom your correspondent mentions as representatives of the Roman School have been his pupils.

Since Professor Sciamanna assumed the directorship of the clinic and impressed a clinical and neuropathological character upon its scientific movement, its importance has greatly increased. There are now six assistant physicians, and in connection with the clinic a monthly journal is published, which has the honour of exchange with yours.

From Dr. Ferrari.

Dr. Pardo's correction is in accordance with facts, and I regret that omission, as well as several others apparent to the specialty in Italy—notably Professor Bonfiglis, *Association for Idiots*. I also regret various mistakes in printing which arose in consequence of my not having had a proof of my article.

From Dr. F. W. Mott.

Dr. F. W. Mott, Pathologist to the London County Council and a member of the Tuberculosis Committee of the Medico-Psychological Association, wishes to state that his experience with regard to tuberculosis on the post-mortem table of Claybury Asylum, in no way corresponds with the small percentage given by Dr. Noott in the report of a discussion on page 33 of this present volume of the Journal. At Claybury the percentage is at least 25 per cent. This disclaimer is necessary, owing to letters received from Dr. Crookshank and others, by Dr. F. W. Mott, showing that they were under the impression that he was the speaker on that occasion.

January 21st, 1901.

[We regret to find that the mistake was caused by an unfortunate misprint, Dr. Noott's name appearing as Dr. Mott.—Ed.]

OBITUARY.

Joseph Gustavus Symes.

We regret to have to record the death of Mr. Joseph Gustavus Symes, formerly Medical Superintendent of the Dorset County Asylum, at Southfield, Weymouth, on January 14th, 1901.

Born at Crewkerne, Somerset, February 10th, 1825, he was the only son of the late Admiral Symes, who served through all the wars in the early part of the century. The late Mr. Symes came into Dorset in 1842, as a pupil of the late Mr. Fox, then practising at Cerne Abbas, but who shortly afterwards moved to Weymouth. After the pupilage usual for medical students in those days, Mr. Symes became a student at St. George's Hospital. During his student days he made many fast and long-lived friends, all of whom pre-deceased him. He was strongly in favour of the pupilage system, as being calculated to turn out thorough, practical men. He obtained the qualifications of M.R.C.S. and L.S.A. in 1848, and for some few months afterwards was House Surgeon at the Southampton Infirmary. After leaving Southampton he returned to assist Mr. Fox, and his vivid description of professional visits to the plague-stricken hulks in the harbour about the year 1850 was exceedingly interesting. In 1852 he went to Devizes in Wiltshire, where he practised and had charge of a small private Asylum. It was while here that he received the appointment of Medical Superintendent to the old Dorset County Asylum at Forston, on the death of Dr. Sandon, and commenced his life's work on December 1st, 1854.

Finding the Asylum overcrowded, he worked hard for new and better accommodation, and soon the real work of his life—the new Asylum at Herrison, a mile distant from the old Asylum—was to engage his attention. In 1863 he had the great satisfaction of organising and opening the new buildings on an inclusive site of fifty-five acres. It should here be mentioned that in face of much opposition he secured a detached house (afterwards joined by a conservatory) for the Medical Superintendent, which was a great achievement forty years ago.

From this date until his retirement in 1887 he directed the affairs of both institutions, and many and great were the changes he had been an eye-witness to during his long tenure of office.

When he originally undertook the management of the old Asylum at Forston, the "staples and chains" of by-gone days were in several rooms, though he was assured they had not been used for many years.

From his earliest asylum days he was a strong advocate of non-restraint, though not to the degree he was enabled to witness in the happy years of his retirement. As an administrator he had few equals, and those who knew him best will ever bear witness to his singularly clear judgment and well-balanced mind. Above everything he was punctual and methodical in all his ways and habits—qualities which cannot be shorn from the successful administrator.

His fine commanding presence, his massive head, his soft silken hair showing far below his well-known broad-brimmed hat, made him a very conspicuous figure; and when to all this is added an individuality of wonderful sympathy and tenderness, it is easy to understand the great hold he acquired over those who came under his sway. It was during his years of greatest activity that the late Lord Shaftesbury offered him a Commissionership in Lunacy, which on private grounds he felt himself unable to accept.

When in 1886 he intimated his desire to be relieved from the arduous labours of his office, the Committee of Visitors awarded him the fullest pension it was in their power to grant, but through an unworthy opposition this was not adopted by the Court of Quarter Sessions, and he had the humiliation of having his thirty-two years of ceaseless toil and devoted services rewarded by a pension altogether unworthy of his claims.

Mr. Symes was one of the few remaining links between the past and the present in our own special branch of the profession. He was the intimate friend of the late Dr. Sherlock of Worcester, Dr. McCulloch of Abergavenny, Sir John Bucknill, and Dr. Thurnam, of Devizes. He lived to see the original home of his asylum labours torn asunder and every brick removed, also to see the bare chalk down on which he spent so much personal labour grow into a huge estate of 400 acres with a large modern asylum surrounded with avenues, trees, and shrubberies of great beauty and perfection.

He was retiring almost to a fault, which prevented him from being better known, either amongst his profession or the general community. Two bereavements, one in 1863 and the other in 1891, greatly affected him. The former was the loss of his first wife, for whom no words could describe his love and attachment, and the other was the death of his second son, when an Assistant Medical Officer at Rainhill Asylum.

He leaves a widow and four children to mourn his loss, and never were children the poorer for the loss of a parent, for he was indeed the most loving and affectionate of fathers.

NOTICES BY THE REGISTRAR.

Certificate of Proficiency in Mental Nursing.

The next examination will be held on Monday the 6th day of May, 1901, and candidates are earnestly requested to send in their schedules, duly filled up, to the Registrar of the Association, not later than Monday the 8th day of April, 1901, as that is the last day upon which, according to the rules, applications for examination can be received.

Certificate in Psychological Medicine.

The next examination will be held in July, 1901.

The examination for the Gaskell Prize will take place at Bethlem Hospital in the same month, and the Examiners are authorised to award a second prize in this competition, should one of the candidates attain such a standard as would justify them in doing so.

THE PRIZE DISSERTATION.

Although the subjects for the prize essay in competition for the bronze medal of the Association are not limited to the following, in accordance with custom the President suggests:—

1. The influence of "stress" in the production of mental disease.
2. The value of electricity in the treatment of insanity.
3. The condition of the circulation—clinical and pathological—in various forms of mental disease.

The dissertation for the Association medal and prize of Ten Guineas must be delivered to the Registrar, Dr. Benham, City of Bristol Asylum, before May 30th, 1901, from whom all particulars may be obtained.

By the rules of the Association, the Medal and Prize are awarded to the author (if the dissertation be of sufficient merit), being an Assistant Medical Officer of any Lunatic Asylum (public or private), or of any Lunatic Hospital in the United Kingdom. The author need not necessarily be a member of the Medico-Psychological Association. Due notice of the exact dates will appear in the medical papers. Further particulars respecting the various examinations of the Association may be obtained from the Registrar, Dr. Benham, City Asylum, Fishponds, Bristol.

NOTICE BY LIBRARIAN.

Additions to Library during Quarter from DR. MACEVOY.

RANK (J.).—De la méthode dans la Psychologie des Sentiments. 8vo, Paris, 1899.

HASLÉ (L.).—Du Bromure de Camphre dans le traitement de l'Épilepsie. 8vo, Paris, 1899.

MONCALM (M.).—L'origine de la Pensée et de la Parole. 8vo, Paris, 1900.

SOLLIER (P.).—Le problème de la Mémoire. 8vo, Paris, 1900.

RAVLIN (J. M.).—Le Rire et les Exhilarants. 8vo, Paris, 1900.

And four reprints from French and Belgian journals.

NOTICES OF MEETINGS.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

General Meeting.—The next General Meeting will be held in London on the 23rd of May next.

Annual Meeting.—The Annual Meeting will be held on the 25th and 26th July next, at Cork, under the Presidency of Dr. Oscar Woods. An Excursion to Killarney will be arranged for the 27th and 28th July, if sufficient members indicate their intention to Dr. Oscar Woods before the end of June.

South-Eastern Division.—The Spring Meeting will be held at the Essex County Asylum, Brentwood, on Wednesday, April 24th, 1901. The Honorary Secretary will be glad to receive the names of candidates for election to the membership of the Association, and also the names of members wishing to read papers at the Autumn Meeting.

South-Western Division.—The Spring Meeting will be held at the County Asylum, Powick, near Worcester, on Tuesday, April 23rd, when a discussion will be opened on "Asylum Dietary," to be followed by other contributions.

APPOINTMENTS.

Ahern, John M., L.R.C.P.I. and L.M., appointed Assistant Medical Officer to the Warneford Asylum, Oxford.

Clapham, Crochley, M.D., F.R.C.P.E., to be a Consulting Physician to the Royal Hospital, Sheffield.

Cotton, William, M.A., M.D., D.P.H., appointed Medical Officer H.M. (local) Prison, Bristol.

Dickenson, G. O. M., M.B., B.S.Durh., appointed Assistant Medical Officer to the Northumberland County Asylum, Morpeth.

Gostwycke, C. H. G., M.B., Ch.B.Edin., appointed Third Assistant Medical Officer to the Kent Lunatic Asylum, Chartham.

Mould, Gilbert E., to be Physician for Mental Diseases to the Royal Hospital, Sheffield.

Sall, Ernest F., M.R.C.S.Eng., L.R.C.P.Lond., appointed Second Assistant Medical Officer to the Graylingwell Hospital (West Sussex County Asylum), Chichester.

Shera, J. E. P., L.R.C.P.I., L.R.C.S.I., appointed Second Assistant Medical Officer to the Kent County Asylum, Chartham, Canterbury.

Stevens, W. W., M.B., Ch.M.Syd., appointed Junior Medical Officer in the Lunacy Department, New South Wales.

ERRATA.

For Dr. Mott *read* Dr. *Novtt* on page 33 of the JOURNAL for January, 1901.

For Sherrington *read* Hamilton Wright on page 184, line 13, of the JOURNAL for January, 1901.

THE
JOURNAL OF MENTAL SCIENCE

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Part I.—Original Articles.

General Paralysis and Syphilis: a Critical Digest.

By W. H. B. STODDART, M.D., M.R.C.P.

GENERAL paralysis of the insane was first described by Haslam in 1798, thus its recognition is now a century old; and although an enormous amount of labour has been devoted to the search for the essential cause of this disease—perhaps the most fatal to which human flesh is heir—opinion is yet far from unanimous as to its origin. There is no doubt that the view that syphilis is the prime cause finds most favour at the present time; but in view of the want of uniformity of opinion on this matter, I have felt that a serious attempt to arrive at a definite conclusion would be welcomed by the alienists of this country. Such an attempt might at least help to clear the ground for future investigation.

The fact that (in 1857) Esmarck and Jessen, and subsequently Kjelburg (all Scandinavians), were the first to suggest the syphilitic origin of general paralysis is in itself a very strong point in favour of the view, since syphilis was then, and is still, treated in State hospitals in that country, and therefore the history of previous infection can there be easily obtained.

Fournier investigated the question some twenty years later, and although he was at first an avowed disbeliever, he is now convinced to such an extent that he now regards general paralysis as a parasyphilitic disease.

As in most inquiries of this nature, we find that the methods of research which have been employed are three in number, viz. clinical observation, post-mortem evidence, and experimental evidence. Of these the last two may be shortly dealt with, and will therefore be considered first.

Post-mortem Evidence.

The evidence of past syphilis in the bodies of patients who have died of general paralysis is limited to observations upon the blood-vessels. Mott found from the examination of 160 male necropsies that atheroma of the aorta was present in the proportion of 1 in 3 cases of general paralysis, and 1 in 13 cases of men who had died at forty-five years or under; and he adds that the atheroma generally affected the cerebral vessels as well as the aorta. The numbers here given for general paralysis are below the numbers given by the same author for cerebral syphilis. As Mott states in another part of the same article, no disease is more productive of arterial degeneration than syphilis.

We have also the observation of Svenson who found chronic aortitis in 34 per cent. of his cases of dementia paralytica. This observation may be coupled with those of Malmsten and Evgren, the former of whom obtained a history of syphilis in 80 per cent. of his cases of aortic aneurysm, and the latter obtained a history of syphilis in one fifth of his cases of arterio-sclerosis.

Experimental Evidence.

The experimental method has been employed by one investigator only. At the International Medical Congress at Moscow, Krafft-Ebing communicated the results obtained by an experimenter, who did not wish his name to be published. This experimenter attempted to inoculate nine general paralytics with fresh syphilitic virus from a hard chancre, but failed in every instance, eight of these cases being closely observed for as long as one hundred and eighty days.

The deduction from these experiments was that all these patients had been rendered immune to syphilis by having acquired the disease in earlier life.

On the other hand, it is argued that this is a *non sequitur*. It is a well-known pathological fact that the blood of patients suffering from any disease may have had its bactericidal power either augmented or diminished by that disease. We know not what may be the action of blood-serum from a general paralytic upon the micro-organism of syphilis (we assume there is one—Lustgarten's bacillus does not appear to be generally accepted); but observations have been made upon the action of such serum on the *Staphylococcus pyogenes aureus*. The results, however, are somewhat contradictory. Idelsohn found the bactericidal power to be active in 25 per cent., diminished in 28 per cent., and abolished in 47 per cent. of his cases. Scabia, on the other hand, found it augmented in 70 per cent., diminished in 15 per cent., and abolished in 15 per cent. of his cases; while d'Abundo found the bactericidal power of the blood-serum to be augmented in every one of the 17 cases in which he investigated it.

The inoculation experiments above referred to, upon general paralytics, were undertaken in order to reduce to the conditions of experiment the observation that no general paralytic had ever been reported as having a Hunterian chancre upon him at any time during his general paralysis.

Quite recently, however, Garbini has quoted the case of a man aged forty, whom he saw in an asylum in Italy, and who had contracted syphilis while in the initial stage of his fatal disease (general paralysis). We must, however, bear in mind that second attacks of syphilis are by no means unknown.

Clinical Evidence.

Under this heading we have to consider what evidence of syphilis may be obtained (*a*) from the physical examination of patients, and (*b*) from statistics referring to the numbers in which various observers have been able to obtain a history of previous syphilis.

(*a*) With regard to the first point, it may be at once stated that tertiary affections of the skin, eyes, liver, etc., are rare in cases of general paralysis. Mott puts this conversely, and states that he believes that general paralysis is more likely to occur in a man who has had syphilis, and who yet presents

no tertiary manifestations. Scars on the penis are probably fairly common; but I know of no isolated statistics on this point, although several observers state that they have looked for them in obtaining their evidence of syphilis in patients.

Then tabes dorsalis, which is almost universally accepted as a parasyphilitic disease, is very frequently associated with general paralysis.

And lastly, the Argyll-Robertson pupil, which is one of the cardinal symptoms of general paralysis, has been regarded, by Gowers and many other distinguished neurologists, as a sign of past syphilis. Hyslop made the independent observation, while studying cases of alcoholic insanity, that when the pupils failed to react to light there was "almost invariably a history of syphilis in addition to that of alcohol."

(*b*) When we come to consider statistics relative to the numbers of general paralytics in which various observers have obtained a history or other evidence of syphilis, we find such an absurd want of accord that one is at first inclined to feel justified in shirking the duty of criticism. I append here a list of statistics obtained from various authors.

	Per cent.	
Voisin	1·6	
Nicoulau	3·96	
Magnan	4	
Eickholt	11	
Siemerling	11·1	(in women).
Kundt	11·6—12·7	
Thuredt	11·6—12·7	
Obersteiner	21·6	
Björnström	24	
Brie	31	
Ziehen	33—43 30—46	(in women).
Fürstner	32—40	
Lange	33—51	
Goldsmith	33	
Rieger	33—45	
Kraepelin and Gudden	34	(in men).
Ascher	34·7	
Nasse	35	
Renand	35	
Percy Smith	35—52	
Westphal	39·8	(in women).
Korsakow	40—72	
Cullerre	42	
Jacobsen	43—52	
Graf	44	
Koshenikow	45·16—60	
Gudden	45·3	(in women).

	Per cent.	
Thiernan	46	
Goodall	47·5—63·5	
Urquhart	48·1—92·6	
Burkhardt	50	
Goldstein	50	
Sioli	50	
Wahrendorf	50	
Wollenberg	50	
Binswanger	50—64	
Gerlach	50·5	
Jastrovitz	51	
Pontoppidan	52	
Erb	52	
Le Felliâtre	55	
Hirschl	56—81	(signs of syphilis present in 6 per cent.).
De Senna	56·2	
Mierzejewski	60	
Fischer	60	
Petersen	60—70	
Näcke	60—75	
Pierson	60·5	
Pietz	61·4	
Oebeke	62	
Thomson	62	
Cristiani	64	
Folsom	66	
Hirt	66·1	

	Per cent.
Bonnet	66·6—80·2
Hanow	68 (in women).
Wollenberg	68 (in women).
Alzheimer	70
Bannister	72—88
Spillmann and Dengler	72—89
Sokolowski	73—83
Reinhardt	73·3—80
Lewis	73·5—87
Cuylits	75
Snell	75
Mendel	75
Hougberg	75·7—86·9
Rohmell	76·8
Jespersen	77·2
Garbini	77·7—92·6
Geill	78·41
Serieux and Farnarier	78·56
Conolly Norman	80
Rumpf	80
MacDowall	80
Savage	80
Mongeri	80·8—93·4
Anglades	81·8—93·4
Minor	86
Mott	86·49—90·9 (in juvenile cases).
Kowalewsky	86·7
Seeligmann	90
Dengler	93
Reinhardt	93
Régis	94

In endeavouring to discover how far these statistics represent the facts of the case, there are many points to be taken into consideration; and it will be seen that all these considerations tend to raise the percentages.

In the first place it should be mentioned that, speaking generally, the lowest percentages are from the earliest writers, and the highest are from the later writers on the subject.

In the second place, it must be borne in mind that, in nearly all these statistics, those cases of general paralysis in which no history at all has been obtained, or in which the history has been unsatisfactory (as when a negative history of syphilis has been obtained from a wife or sister), have been placed upon the negative side, whereas they should rather have been left out of the statistics altogether.

In the third place, we must not forget that several of these numbers are taken from the large public asylums of the various countries—institutions where it is extremely difficult to obtain a reliable history, or even, in many cases, any history at all. These institutions, too, are (as in our own country) almost invariably undermanned in the matter of medical officers, who have not enough time to make a sufficiently careful inquiry into this matter.

Fourthly, many of these numbers have been obtained by the observer looking up in his case-books in how many cases of general paralysis a history of syphilis is recorded, although the records may not have been taken throughout with a view to publishing statistics on the question. Now it seems to me that this is unfair, and that statistics so obtained ought not to

be published without some statement to the effect that special attention had not been paid to each case with a view to publication. A casual question regarding syphilis often elicits a negative answer, whereas more careful inquiry would elicit a positive one. On the other hand, it must be admitted that a positive answer may also sometimes be erroneously given; for example, in our own navy all venereal disease has to be returned under the head of syphilis.

Fifthly, we have to consider the personal equation of the observer. Some observers would not admit that a patient had had syphilis unless there was obtainable a definite history of a *hard* sore which had left a scar, of secondary symptoms, and perhaps of the further confirmatory evidence that the doctor who treated the patient had administered mercury. On the other hand, there are observers who regard any venereal history, or even the history of a "fast life," as equivalent to a history of syphilis.

It may be argued that these two classes of observers would mutually correct one another. This must be admitted to be true, but we ought to reflect whether one class is not nearer the truth than the other. On the ground of experience I should personally be inclined to justify the latter class of observers. During my term of residence at the National Hospital for the Paralysed and Epileptic in Queen Square I was particularly struck with the large number of cases in which the patient came under observation with symptoms of tumor cerebri, which disappeared on treatment with mercury and potassium iodide, but in which no history or other evidence of syphilis could be obtained; indeed, it was the exception rather than the rule to obtain evidence of past syphilis in these cases. A history of gonorrhœa was frequently obtained, but not of syphilis.

Such experience is not limited to the domain of neurology. Crocker (quoted by Mott) states that he fails to obtain a history of syphilis in 20 per cent. of his syphilitic skin cases, Hirschl failed to obtain a history in no less than 36·5 per cent. of his patients suffering from tertiary manifestations, and Jumon states that he has diagnosed unnoticed infection in the secondary stage as follows:—in men 5 per cent.; in women 20 per cent.; and in the tertiary stage 17 per cent. Further, Fleiner, in his reports on syphilis occulta, shows how fre-

quently syphilis exists without the patients having the slightest idea as to how or when they were infected.

A discussion on the dual nature of syphilis would be out of place in this communication ; but the view which is fast gaining ground among syphilographers must be urged here, that the report that *only a soft sore* had been present does *not* permit the total exclusion of syphilis. Erb, in his allied discussion on the ætiology of tabes, states,—"There are numerous cases of so-called soft sores which are followed later by secondary and tertiary symptoms. I have notes of several cases where *after apparently gonorrhœa, with and without attendant buboes* (*urethral chancre ?*), *secondary symptoms followed*"—the italics are mine.

Mott has had similar experience to the above.

From these considerations, I think we may hold as justified those observers who regard a venereal history as almost equivalent to a history of syphilis.

Lastly, the possibility of inherited syphilis must not be forgotten. Of some 90 cases of juvenile and adolescent general paralysis scattered throughout the literature, evidence of inherited or acquired (3 cases) syphilis has been obtained in some 90 per cent. But why should the effects of inherited syphilis cease at adolescence? Serieux and Farnarier have had a case of general paralysis in an adult occurring thirty-two years after he had acquired syphilitic infection, and I see no reason why inherited syphilis should not similarly cause general paralysis at thirty-two or more years of age. Mott has reported three cases occurring at twenty-one years, one at twenty-two years, and two at twenty-three years of age, in most of which there were signs of inherited syphilis. Quite recently, Percy Smith has reported a case occurring at twenty-four years of age, who had certainly not had syphilis, and who had no signs of inherited syphilis, but whose father had had syphilis and died of general paralysis. In the same paper a similar case is reported as occurring at twenty-eight years of age. Her father died of general paralysis, and her sister has a very definite history of chronic interstitial keratitis, but the patient had no signs of inherited syphilis.

Mongeri draws attention to the fact that in none of the five cases, in which he failed to obtain evidence of past syphilis out of his series of forty-seven cases, was he able to obtain a

history of the parents of the patient; and he suggests that, had he been able to do so, he might have obtained a history of syphilis (inherited or acquired) in 100 per cent. of his general paralytics. The ages of these five patients were respectively twenty-eight, thirty-five, thirty-five, thirty-seven, and forty years.

If the statistics given in the above table be compared with those of other assigned causes of general paralysis, it will be found that the numbers for syphilis are the highest. It would be outside the province of this paper to discuss these other assigned causes, but by way of illustration a few of the statistics given for these other causes are here appended.

Alcohol.

Author.	Percentage of alcoholism in general paralytics.	Author.	Percentage of alcoholism in general paralytics.
Westphal	3·4	Eiel	24·0
Siemerling	5·0	Ascher	37·0
Lange	17·0	Oebeke	43·0
Ziehen	17·0	Mairet and Vires	48·0
Cristiani	20·97	Garbini	57·14
Björnström	21·6	Macdonald	75·0
Stark	22·7		

Insane Heredity.

Author.	Percentage of general paralytics with insane heredity.	Author.	Percentage of general paralytics with insane heredity.
Westphal	5·4	Simon	33·0
Björnström	8·0	Cristiani	36·36
Siemerling	11·0	Jung	39·0
Obersteiner	11·5	Pontoppidan	41·33
Krafft-Ebing	15·2	Graf	41·6
Mairet and Vires	23·0	Garbini	42·3
Oebeke	23·4	Gudden	42·8
Eickholt	24·0	Lange	43·0
Aeinhard	24·5	Mongeri	44·7
Giraud	28·0	Ziehen	45·0
Ullrich	30·0	Bayle	50·0
Ascher	31·0	Armand	53·0
Calmeil	33·0	Mendel	56·3
König	33·0	Améline	58·7

Traumatism.

Author.	Percentage of general paralytics with trauma capitis as an assigned cause.	Author.	Percentage of general paralytics with trauma capitis as an assigned cause.
Siemerling and Westphal	1·4	Ascher	9·0
Cristiani	4·29	Garbini	11·04
Hirschl	7·4	Meyer	18·0
Oebeke	8·0	Bergmann	18·3
Mairet and Vires	8·0		

Oebeke obtained a history of sexual excess in 69 per cent., and of overwork in 57 per cent. of his 100 cases of general paralysis; and Cristiani obtained a history of sexual excess in 11·88 per cent., and of worry and overwork in 27·97 per cent. of his 201 cases of general paralysis from all these statistics.

It will be gathered that syphilis easily heads the list of the assigned causes of general paralysis, in spite of the various reasons which have been adduced to show that the numbers for syphilis very much understate the facts.

The hypothesis which has been advanced, that syphilis is usually acquired during the early stages of general paralysis, when the patient is addicted to sexual excess, will not hold water for two reasons. In the first place, Marandon de Montyel has shown that sexual excess is not such a common symptom of general paralysis as has been supposed. He obtained a history of abnormality of the genital sense in 95 out of 108 general paralytics. In 35 cases this sense was exaggerated, and in the remaining 60 it was diminished. He made further observations after the patients had come under care, and in the abnormal cases he then found the genital sense diminished in 85 per cent. of his observations, and exaggerated in only 15 per cent.

These numbers agree in a general way with those of Cristiani and Oebeke, who only differ in placing sexual excess among the causes instead of among the symptoms of general paralysis.

In the second place, the accounts of authors do not admit of the hypothesis that syphilis is contracted in the early stages of general paralysis. Hirschl states that out of 78 cases, 23 occurred within the first ten years, and 40 between ten and twenty years after infection; and he points out that these numbers agree very closely with those of Obersteiner regarding tertiary syphilis. Kraepelin's figures are similar: out of 21 cases, 8 developed general paralysis less than ten years, and 8 between ten and twenty years after syphilitic infection, the extremes being two and thirty-one years. Serieux and Farnarier find the mean period of incubation to be between fourteen and fifteen years, their extremes being six and thirty-two years.

In addition to the above facts, there is a mass of circum-

stantial evidence which bears on the relationship between general paralysis and syphilis.

Age.

Adolescent and juvenile general paralysis develop in individuals who have been born syphilitic, or have acquired the disease from a syphilitic wet-nurse shortly after birth (three such cases recorded).

Adult general paralysis is usually found in persons who have acquired syphilis in early adult life.

I have not met with statistics referring to the age at which syphilis has been acquired in cases of senile general paralysis, but I suggest that it would add to this circumstantial evidence if it could be shown that the senile cases had acquired syphilis late in life.

Sex.

Adolescent and juvenile general paralysis occur with almost equal frequency in males and females, females preponderating to a slight extent. This is what we should expect on the hypothesis that general paralysis is a parasyphilitic disease. Males and females are equally exposed to the inheritance of syphilis, and we should therefore expect general paralysis to be equally distributed between the sexes when considering the juvenile and adolescent cases, with a slight preponderance of females as in the general population.

Adult general paralysis occurs in the pauper class four times as frequently in men as in women, and in the private class fifteen times as frequently. These numbers agree fairly well with those furnished long ago by Fournier, who found syphilis 10·1 times as frequently in men as in women, and with those of Blascko, who found that one woman was a source of infection for four men, and this in a country where the laws affecting prostitution are very stringent (Denmark). This difference between the two classes is what we should expect in view of their different social customs.

Confining our attention for the moment to female adult general paralytics, we find that they are nearly all married,

and of the rest, many are prostitutes. Salaris states that during the years 1891-1897 inclusive, there occurred in Sardinia only two cases of general paralysis in women. One was a prostitute and the other was married.

Nay, further, Campbell states that no case of general paralysis has been observed in a *virgo intacta*.

Lastly, we have to remember that female general paralytics are frequently sterile.

Heredity.

A history of insanity is less frequently obtained in the ancestry of general paralytics than in that of the general insane population. Statistics bearing on this point show that a history of insanity in the relatives of the insane-generally is obtained in 30 to 90 per cent. of the cases, whereas in the case of general paralytics the highest numbers obtained by any one observer show 58·7 per cent. Numerous cases have, however, been recorded of general paralysis in parent and offspring; at least 27 such cases have been recorded within the last twenty years. It is questionable if this number is sufficiently large to exclude the possibility of these cases being examples of mere coincidence.

Allied to this observation is the one that many cases have now been reported in which husband and wife have both suffered from general paralysis or from tabes, or the one from general paralysis and the other from tabes. Mendel has collected notes of twenty such cases; I have come across seven more published since his paper, and I know of one unpublished case in which the husband died of general paralysis (suicide) and the wife had tabes. But even this again may be merely a matter of coincidence—the numbers are very small.

Profession.

The professions are represented among general paralytics in proportions which are in accordance with the hypothesis of syphilitic origin of the disease. For example, one third of Hirschl's cases and two thirds of Garbini's cases belonged to the labouring class, 90 per cent. of Krafft-Ebing's cases were

officers in the army; while Hirschl had only one Roman Catholic priest among his two hundred general paralytics and Krafft-Ebing had no instance, among two thousand cases of general paralysis, of the disease occurring in a Roman Catholic priest. Salaris states that there was only one case occurring in Sardinia in a priest during the years 1891-1897, and that that priest had certainly had syphilis. Bouchard also demonstrates the infrequency of general paralysis among the clergy.

Geographical and Racial Distribution.

The geographical and racial distribution of general paralysis bid fair to throw much light upon the ætiology of the disease. In Dr. Macpherson's *Mental Affections* the author remarks: "It may be generally stated that the disease does not exist in the Highlands of Scotland or in Ireland outside the larger cities, or in the more rural and remote districts of Wales and the south of England. It reaches its maximum in the busy manufacturing towns of the Midlands, and in the larger cities of the United Kingdom." The same remarks apply to Sweden. The author continues: "Taking a wider geographical area, it is present in the countries of Western Europe and North America, and is practically unknown among the uncivilised nations of the world."

We learn that in Germany general paralysis has invaded the more rural districts to a greater extent than formerly; but this can be accounted for by the military organisation which exists there, whereby every man is exposed in his youth to barrack-room life and syphilisation.

This distribution corresponds fairly well with the distribution of syphilis; the latter disease, however, is rather more widely spread, and there are some special countries which demand closer investigation.

Syphilis is a rare disease in Iceland, and does not spread throughout the population. Schierbeck, the principal medical officer of Iceland, met with only four cases in eight years. "Its introduction is not safeguarded by the habits of the people as by the necessary isolation imposed by nature on the inhabitants of this barren island. . . . General paralysis has been observed once only in the capital of the country, and then in a

man who for six years had led a somewhat fast life abroad, and perhaps twice in the only port of Iceland, where there are some members of the native population who accept the advances of foreign sailors, and who have occasionally been infected by them." On the other hand, we find that in China and Japan there is a large amount of syphilis—an enormous amount according to some authorities; but general paralysis is comparatively rare (2 per cent. in the asylum at Tokio about two years ago). Again, in Mahommedan countries syphilis is rife, but general paralysis comparatively rare. Mott quotes a letter from Warnock in which he states that a short time ago there were twelve general paralytics at the asylum of Cairo (the only one in Egypt) out of an insane population of 450.

Basing conclusions upon the racial distribution, it is argued that general paralysis is essentially a disease of *civilisation;* to this conclusion we will return later.

Conclusion.

It is noteworthy that, in the history of medicine, hepatic syphilis, cutaneous syphilis, cerebral syphilis, etc., have all passed through a stage in which their syphilitic origin remained in doubt. This stage has, however, in each of these instances been a short one; because it soon became recognised that these diseases were rapidly cured by mercury and iodide of potassium. Now in the case of general paralysis this is just where we are handicapped; for the nature of the disease is such that no amount of mercury can cure the disease, however important an ætiological factor syphilis may be. We must, therefore, entirely rely upon other sources of information.

The sources of information epitomised above go very far to prove that general paralysis is due to syphilis.

It has been shown that the statistics of syphilis in cases of general paralysis are higher than those of any other ascribed cause, and further that these statistics very much underrepresent the facts. Indeed, considering the enormous odds against which the various authors have had to work (especially the difficulties of *syphilis occulta* and *ignorée*, and of obtaining a reliable syphilitic history of parents perhaps long dead), it is surprising to find that many of the numbers are as high as

they are. But, in addition to all this direct evidence, we have an accumulated mass of circumstantial evidence from the study of the age, sex, heredity, profession, rank, and race of general paralytics which should convict syphilis in any court of law. On the whole the experimental evidence of Krafft-Ebing is also in favour of such a conviction.

The only argument of any importance against the view that general paralysis is essentially a parasyphilitic disease is the fact that general paralysis is rare in uncivilised communities where syphilis is rife.

It behoves us, therefore, to discover what is the element in civilisation which aids syphilis in causing general paralysis; especially we have to ask ourselves, "In what way is syphilis affected by civilisation?"

In the first place, syphilis is a less severe disease among the civilised than among the uncivilised, perhaps for the reason that syphilis has existed for a longer period among the civilised. Similarly, it is my experience that general paralytics have never previously suffered severely from their syphilis. The logical conclusion from such premises is that it is the mildness of the attack of syphilis which causes general paralysis—a *reductio ad absurdum.*

In the second place, syphilis remains untreated in uncivilised countries; for example, the Mahommedans' treatment of venereal disease is to say "kismet," and all is over. But among the civilised the patient is saturated with mercury, perhaps for two years. Now the question has never been investigated whether it is the mercury which causes general paralysis.

Marschalko has carefully investigated the question whether tertiary syphilis is or is not caused by mercury, and has conclusively demonstrated the drug to be innocent; but the relationship of mercurialism to general paralysis remains to be investigated.

As early as 1861 Kussmaul stated that, although he had taken much trouble to do so, he had not been able to meet with the record of a single worker in mercury who had acquired syphilis while affected with mercurialism. This observation suggests that some information on the point in question might be gleaned from firms whose employées work in mercury (jewellers'-rouge and mirror makers).

It has been suggested that the immunity of the Mahom-

medan from general paralysis is due to his simple mode of life and to his moderation in the matter of eating meat. This is difficult of acceptance, for the poorer classes of even this country, and especially of such a country as Italy, among whom general paralysis is rife, cannot be accused of excessive meat-eating. Further, it has been shown that general paralysis is commonest in this country among those people who live the simplest lives (the poorer classes).

From all the above considerations we may conclude that syphilis is so frequent an antecedent of general paralysis, that the non-syphilitic cases (if such exist) may for the present be regarded as a negligible quantity. At least, we may say for practical purposes that hardly anybody runs the risk of getting general paralysis who has not had syphilis. But the question still remains to be answered whether general paralysis is due to syphilis *per se* or to the subsequent mercurialisation of the patient which occurs in civilised communities.

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The Cerebral Localisation of Melancholia. By BERNARD HOLLANDER, M.D., Freiburg-i.-B., M.R.C.S.Eng., L.R.C.P. Lond.

I. INTRODUCTION.

IN a previous paper has been demonstrated the possibility of localising the fundamental emotions in circumscribed areas of the cortex of the brain.

Alienists have never attempted localisation, though they must have noticed that there exist in the encephalon regions, the lesion of which nearly always brings about the appearance of the same symptoms. To those clinicists who believe in localisation, a solitary tumour, a simple limited hæmorrhage, or a localised softening would be the same for purposes of study as the experiment of excitation or artificial destruction is to the physiologist, with the advantage that the clinical observations would be more trustworthy, since they are made on man, whose mental and physical changes we can test.

Pure melancholia being an emotional and not an intellectual disease, we are not surprised that Jensen (*Archiv für Psychiatrie*, vol. xx) found that in this form of insanity the frontal lobes are not affected, in contrast to general paralysis. Tigges (*Allg. Zeitschrift für Psychiatrie*, 1888, vol. xlv) found the same. In melancholia, he says, the frontal lobe keeps its high weight; whereas in hilarious mania it sinks low, and in general paralysis lowest.

The present paper deals with the different degrees of simple

melancholia, especially in its earliest stages. While Ferrier, Savage, Schröder van der Kolk, Tigges, Jensen, and others have surmised that the lesion in melancholia is limited in extent, others there are, like Yellowlees, Fielding Blandford, Mickle, etc., who adopt the opposite view. Were melancholia an affection of the entire brain the intellect would necessarily be always involved; whereas we meet every day with melancholiacs who do not exhibit any disorder in their ideas or any lesion of judgment. Melancholia is what Germans style a "Gemüthskrankheit"—a morbid condition of the emotional life affecting an area which is not concerned in intellectual processes.

The cases adduced in the following pages show this area to be the parietal lobe, more particularly the convolutions which lie under and around the parietal eminence, viz. *the angular and supra-marginal gyri.*

To remove any doubt which may obscure the judgment in the testing of these cases I will at once explain those exceptions in which lesions have been found in regions other than the parietal.

Every one may call to mind cases of melancholia which were found with lesion of the frontal lobes. How are these to be explained? In the previous paper it has been shown that the frontal lobes are the centres of intellect, and as such the centres of inhibition of the emotions. In a lesion of the frontal lobes, therefore, the control or inhibitory influence exercisable over the emotions would be lost, and thus a naturally active disposition become morbid. Thus a serious, quiet, gloomy, timorous, or anxious character may now become melancholic, at least at the outset of his insanity. Of course, if the patient is demented as well as melancholic, both parietal and frontal convolutions will be found affected.

Lesions of the occipital lobes may produce symptoms akin to melancholia, but there are comparatively few cases on record, and these will be dealt with in another paper.

Lesions of the temporal lobes alone do not produce *simple* melancholia, but frequently the lesion of the inferior parietal lobule extends into the posterior part of the temporal convolutions, and then produces a new group of symptoms, which will also be described in a subsequent paper.

Again, sometimes no lesion may be discoverable, and some-

times the whole brain may apparently be affected. Thus we may find a general anæmia of the brain in the melancholic cases owing to inanition. In such inanition-melancholias there prevails an intensification of the natural characteristic of the patient; there is an hereditary or acquired disposition to a depressed condition.

Only dispositions which are already leading and highly active in the normal state will become morbid. Thus the modest, humble, apprehensive, and conscientious man becomes the melancholiac and self-accuser. Persons who are of selfish and criminal cast do not in their delirious utterances reproach themselves, nor express ideas and sentiments which imply that they are specially disturbed regarding past conduct.

It will be shown that the supra-marginal and angular gyri are concerned in the production of those morbid psychical and physical states which we collectively term "melancholia," of whatever nature the lesion be; and furthermore that the functions which have been assigned to this area by Ferrier, Munk, and others, as a result of their experiments on animals, frequently co-exist with melancholia, particularly in its earlier stages. Such early stages, however, do not often come under the observation of alienists; and the neurologist, speaking generally, is not wont to notice the mental changes in the patient; or if he does observe them, he is likely to regard the patient's depression, anxiousness, and morbid fears as a natural outcome of existing physical trouble, and not of the particular lesion of the brain.

II. Cases of Melancholia due to Injury to the Central Parietal Area.

In the following pages are cited cases of injuries to the brain affecting the supra-marginal and angular gyri, or the meninges covering them, which have been found accompanied by symptoms of melancholia.

Various authors have described a "traumatic insanity." The cases to be adduced will demonstrate that *a single form of traumatic insanity is non-existent.* The form of insanity will vary according to the region on which the injury is inflicted. Though Skae, Maudsley, and others have declared that me-

lancholia is rarely present in traumatic insanity, the following cases will show that when the injury is inflicted on or about the middle of the parietal bone, and is severe enough to cause a change in the tissues beneath, melancholia is likely to occur. The possibilities of *contre-coup* must, however, be borne in mind.

Of the fifty cases of injury about to be quoted one half recovered after surgical operation.

George E. Wherry.—N—, an attendant of the Three Counties Asylum, a strong man aged 25, was sitting in an arm-chair, when a powerful lunatic came up from behind and struck him on the head with a heavy carpenter's mallet. He remained master of his senses, but faint from loss of blood. Three days later he had convulsive twitchings down the left side, and on the following day left hemiplegia was manifest.

There was a compound comminuted depressed fracture of the right parietal bone, from the parietal eminence to the sagittal suture. He was trephined. The inner table was found more extensively fractured than the outer, the fragments of skull being deeply depressed and the brain bruised. The exfoliated bone was removed. Next day the wounds, unfortunately, suppurated. The patient, who previous to the operation was *merely anxious* about himself, otherwise calm and intelligent, got *more depressed* and sullen, and in another month was insane. He had a vacant and absent look. More pieces of bone which had been exfoliated were removed, after which operation he spoke rationally, and by December recovered sufficiently to engage in farming pursuits.—*British Medical Journal*, April 21st, 1883.

William Macewen.—J. W—, aged 28. Seven weeks prior to admission he fell down the slope of a quarry, his head coming in contact with a projecting stone. In this way he received a small wound at the posterior extremity of the left parietal bone, about an inch from the middle line, which gave him little trouble and was soon healed. About three weeks after the accident he began to experience a dull aching pain on the left side of the vertex. He soon afterwards began to suffer from great mental depression, and complained of a sensation of weight in his head. These symptoms continued until his admission into hospital, four weeks from the onset. Here he preferred to lie in bed, as he felt giddy when he moved about. On careful palpation there was a slight tumidity discerned about the cicatrix. An incision was made across it. The periosteum was thick and somewhat infiltrated with plastic exudation. The cranial bone was inflamed. A stellate fracture of the skull was discovered, with a much depressed and comminuted internal table, and about four drachms of pus escaped. At the centre of the affected area the dura mater was covered by a thick layer of granulation tissue, while at its circumference this membrane was flocculent. A fortnight after the operation the wound was healed. The patient's former mental depression and painful sensations had entirely

disappeared. A month after the operation he was dismissed well, and twelve months after dismissal he reported that he was in excellent health and attended to his work regularly.—*Pyogenic Infective Diseases of the Brain*, Glasgow, 1893.

W. B. Fletcher.—These are three cases of patients who, after an injury to the skull in the parietal region which left a depression, were suffering from melancholia and developed suicidal tendencies, and who, after a simple surgical operation of lifting the depressed tablet of bone went forth as normal men.—*American Journal of Insanity*, April, 1886.

Other cases of trephining for traumatic melancholia by the same author. —W. P. H—, 35 years old, fell from a scaffolding six years prior to admission, and exhibited since then strong suicidal tendencies. There was a depression of bone on the left parietal, near the osculation of the right parietal and occipital. He has had epileptic convulsions since the attack. The depression was quite perceptible both to sight and touch. The depressed piece was elevated, and according to Dr. Fletcher the patient "found to his delight that he was free from the pain and abnormal mental condition, which had been his constant companion for years, since the moment of his fall from the house-top." —*Ibid.*, October, 1887.

The same author adduces four more cases of injury to the parietal bone, all four recovering after removal of the depressed piece of bone. He also mentions two other cases with suicidal tendencies from injury, not to the parietal, but to the *frontal* bone. We are not surprised to read that trephining the depressed frontal region did not improve these patients, for in all probability the parietal lobe was affected by *contre-coup.*

R. Thomsen.—P—, watchman, 43 years of age, hitherto healthy, fell from a cart on to his head, and received a wound which left an adherent scar, 20 cm. long, on the left parietal bone. He went on his way, but on reaching home he suffered from nervous symptoms, which caused him to remain in bed for eight weeks. He then tried to resume work, but had to give it up from a feeling of fear and anxiety, palpitations of the heart, and giddiness. There was pain at the seat of the scar. His depression increased considerably, and he heard voices assailing his reputation, with the left ear only, but was able to distinguish them as unreal and as due to his disease. He saw faces, too, which inspired him with terror. Sent to the asylum a year after the injury, he was noticed to be quietly behaved, to have an expression of sadness, and there was concentric limitation of the field of vision and tremor of the hand. He was very anxious, especially at night, and his sleep was disturbed with dreams, which increased his terror. The excision of the scar was decided upon, but the patient would not consent to the operation, and left for home.—*Charité Annalen*, vol. xiii.

Dr. Koeppe, Halle-a/S.—Christian L—, when 42 years of age, received a blow on the left parietal bone, which deprived him of consciousness, and caused him much headache ever since. Three years afterwards he betrayed much abnormal anxiety about his condition. The following year he made two attempts at suicide, one by hanging and one by cutting his throat. Usually he sat still and listless, but at times he ran about excitedly; the excitement subsided soon, and only the symptoms of melancholia remained, for which he was sent to the asylum. He complained of precordial pain and giddiness, sat on his bed with an expression of fear and despondency, declining any conversation. On the left parietal bone, at the seat of the injury, a scar was visible and a small tumour could be felt. On the excision of this tumour it was found to be a neuroma dolorosum. The wound healed by first intention. Patient became bright and cheerful, declared himself free from pain, and was discharged. He reported himself some time afterwards as continuing well.—*Deutsches Archiv für klinische Medizin*, vol. xiii.

Another case by the same author.—Carl D—, 18 years old, received a blow on the left parietal bone with a stick, which caused him great pain. Fourteen days afterwards, when the wound had healed, he became excited with fear, saw danger everywhere, looked anxiously about, sat or lay motionless. He was admitted to the asylum with symptoms of melancholia; he stared about, stood or sat for hours, fixed in the most uncomfortable positions, had frequently to be forced to take his food. When moved to speak at all he burst out crying. He had delusions of fear. On the left parietal bone there was a highly tender scar, one inch long, adherent to the bone. The excision of the scar relieved the patient, and he was discharged.—*Ibid.*

P. Stetter.—Patient, 28 years of age, received an injury some eleven years before in consequence of a cart-horse on which he rode shying at a railway train and throwing him to the ground. The pole of the cart was driven into the lower part of his right parietal bone, and the depression extended to the parietal eminence. He was carried home unconscious. The wound healed readily, but the depression remained. No physical symptoms, but striking psychical changes. Patient shunned all association with men, sat for hours brooding in a corner, had daily paroxysms of weeping, and in the end preferred his bed to getting about. He was irritable, would not obey his parents. These consulted with Dr. Stetter, who decided to trephine. The depressed bone was removed. After the operation patient joined social life again and became quite normal.—*Centralblatt für Chirurgie*, 1892.

Daniel Mollière.—M. A—, age 40 years, received an injury in the parietal region, close to the temporal bone, which left a scar of 15 centimetres length. Patient became melancholic, with paroxysms of agitation at night, when he also had alternately incontinence of urine and polyuria. The operation revealed neither fracture nor compression of bone, but an eburnation of the bone with hyperostosis. There was abscess in the brain beneath the seat of injury; patient improved a

few days after the operation, but became hemiplegic on the fifteenth day. It was then noticed that pus was stowed up in the wound. On letting it out his recovery was rapid. He soon returned to his occupation, which he followed with his former gaiety of spirits, and the letters with which he reported himself to the physician showed him to have kept well and in possession of all his faculties.—*Report of the French Surgical Congress*, 1885.

The same author.—H. X—, 31 years of age, received an injury to his head which left a scar in the right parietal region. He became a melancholiac. After trephining the skull at the seat of injury he gradually improved, was discharged two months after the operation, and reported himself two years subsequently as well and working at his trade.—*Ibid.*

Thomson and Oppenheim (Melancholia with Sensory Anæsthesia).—W. S—, 49 years of age, family history good, no history of illness previous to accident. While engaged in his work he received a blow on his head from a lever weighing about 2 cwt. He fell down senseless immediately. The wound he received healed in about six weeks, and left a scar of 4 cm. length on the posterior part of the right parietal bone, with strongly raised edges and a marked depression of bone. The scar was painful on pressure. Patient suffered since the accident from uncontrollable fear and a sense of giddiness when walking in the open. The slightest noise startled him. When addressed suddenly he shrank together alarmed, and was unable to utter a word. He was a strongly built, muscular man. He had an anxious face and rigid stare. He seemed greatly oppressed and in a state of continuous sadness. No paralysis. Sense of touch and pain much diminished, and the visual field contracted.—*Archiv für Psychiatrie*, 1884, vol. xv.

The same authors.—Another case of melancholia with sensory anæsthesia.

K. P—, 49 years of age, workman. No hereditary taint. Hitherto healthy. A weight of nearly two hundredweight fell from an engine on to his head. Notwithstanding the force of the blow and great hæmorrhage patient remained conscious, but was confined to bed for a month. He was brought to the hospital four weeks after the accident. There was a scar 7 cm. long on the right side of his head at the lower inferior angle of the parietal bone, with a depression in the bone. Patient complained of permanent low spirits, and uttered thoughts of suicide. He became very nervous and easily alarmed. His expression was always one of fear, only occasionally more markedly so. There was diminution of all sensibility.—*Ibid.*

Prof. Fenoglio.—A young farmer, 19 years of age, received a depressed fracture of the right parietal bone. The depression measured 63 mm. in length, 15 mm. in breadth, and 10 mm. in depth; it was situated between the parietal eminence and highest middle point of the temporal crest. Hemiplegia and epileptiform convulsions followed. The formerly merry, cheerful patient fell into a sad and depressed

mental condition, which brought him to the asylum five years afterwards, in his twenty-fifth year. He was trepanned, and a splinter of bone, which had indented the brain, was removed. The former hopeful, sanguine, jolly nature returned to the patient after the operation.—*Archiv. di psichiatria*, 1884, vol. v.

H. A. Powell.—Depressed fracture of right parietal bone in a girl 8 years of age. Depression and apathy. Trephined seven years after injury, when fifteen. Became at once bright and cheerful. Under observation two and a half years.—*Surgical Aspect of Traumatic Insanity*, Oxford, 1893.

W. Julius Mickle.—General paralysis with melancholia after cranial injury. A. T—, soldier, admitted at age of 29. Serving in the cause of civilisation against the desperadoes of the Paris Commune in 1871, he was struck by a partially spent rifle ball on the head, just behind the left parietal eminence, and lay insensible for several days. Subsequently he entered the British army, where his intelligence and good conduct gained for him promotion as sergeant. After the promotion he became depressed, melancholy, and careless as to duties. He became strange in manner, and signs of general paralysis developed. There was no sign or acknowledgment of venereal disease. Patient wore an anxious, worried facial expression. He died three months after admission. The necropsy, according to the author, revealed only diffuse changes common to general paralysis of the insane.—*Journal of Mental Science*, January, 1883.

Philippe Rey.—General paralytic with melancholia; operation; melancholia cured, but not the general paralysis. Patient, 40 years of age, was admitted to the St. Pierre Asylum for symptoms of general paralysis, combined with melancholia, distressing delusions, and terrifying hallucinations. There was a depression in the left parietal bone, size 5 cm., about which no history could be obtained. The depressed bone was elevated, the dura mater excised. The meninges presented a gelatinous appearance with milky spots. After the operation the patient lost his depressing delusions and hallucinations, but the symptoms of general paralysis, defective speech, trembling of the lips, etc., continued, and he died of a diffuse meningo-encephalitis.—*Report of Alienist Congress*, Lyons, 1891.

Other cases are—

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Boubila and Pantaloni, *Gazette des hôpitaux*, 1892.
Dr. Fenoglio, *Bologna Rivista Clinica*, 1887.

III. Tumours of Central Parietal Area producing the Mental Manifestation of Melancholia.

The following cases are those of tumours of the parietal lobes, from which it will be seen that one of the symptoms of tumours in this region is depression, varying in degree from low spirits to morbid fear or melancholy. This would distinguish tumours of the parietal lobe markedly from those of the frontal lobes. Symptoms of the latter, as Oppenheim and Jastrowitz discovered, are hilarity and witticism. Here we have another addition to our knowledge of localisation.

C. v. Monakow.—R—, a well-to-do farmer's wife, 53 years of age. No illness up to her fortieth year, when, consequent upon her sister's suicide, she became melancholic. The mental derangement began with depression, self-accusations—she considered herself responsible for her sister's death, etc.,—but there were no hallucinations. She was then admitted to the asylum and remained there for six years. The derangement was that of chronic melancholia, without hallucination, with clearness of intellect and complete recognition of her state. On leaving she suffered only from slight depression.

Seven years afterwards she gradually relapsed, had morbid fears and tædium vitæ. She was readmitted, and remained in the same condition for four years, when her state became much worse. Her anxiety increased, she hardly ever had any sound sleep, wept and wailed for days together, accused herself of impiety, and deemed this the cause of her illness. Otherwise her intellect was unclouded, and she kept even now free from hallucinations. There was hyperalgesia of different areas

in the lower extremities. She died five years after her second admission.

The autopsy revealed two sarcomatous tumours in the left parietal lobe, which had grown together and had perforated the bone. They involved the upper parietal lobule, gyri supra-marginalis and angularis, as well as præcuneus. The neighbouring brain substance of the tumour was strongly hyperæmic.—*Archiv für Psychiatrie*, 1881, vol. xi.

Sir W. H. Broadbent.—Clara C—, aged 36, a widow, earning her bread as a needlewoman, was subject to convulsion of the Jacksonian type. She was well nourished, but rather pale and having a sad expression. Her vision was almost completely lost, due to advanced atrophy of the optic nerve. She was particularly intelligent, but had become since her illness greatly distressed, very nervous, apprehensive, and low-spirited. She often gave way and cried. She had pain in the right side of the head. The emotional depression continued till her death, when two small gummata, size of a split pea, were found depressing the right supra-marginal lobule.—*Lancet*, February 21st, 1874.

L. Manouvrier, at a meeting of the Anthropological Society in Paris on the 3rd December, 1885, showed the brain of a woman in which there was a depression, size of a walnut, in the parietal lobe, caused by a fibrous tumour which was implanted in the parietal bone. The patient was fifty-one years of age when she died, and was an inmate of the Asylum at Orleans owing to melancholia and a tendency to suicide. Intellectually she was normal; her memory and reasoning power were good. The tumour had encroached upon the arm centre, yet there was no sensory or motor trouble of any kind.—*Bulletins de la Société d'Anthropologie de Paris*, 1885, vol. viii.

Dr. Bernhard described, under the title "An Extraordinary Pathological Condition of the Brain," a case in which he found the greater part of the left parietal lobe depressed for about 2 cm. below its level. The depression was caused by a cyst, the size of a hen's egg, filled with serum, beneath the dura and adherent to it. There were no entozootic remains to be found in it.

The patient was a woman 63 years old, who for years had suffered with melancholia and paroxysms of anxiety. No other signs of disease. These paroxysms increased in intensity, and patient made suicidal attempts. She had delusions of having animals in her body and lead in her head, of suffering with softening of the brain, of having no abdomen. The left side of her body, she thought, was drying up because she cut her wrist there in one of the suicidal attempts.—*Allg. Zeitschrift für Psychiatrie*, 1883, vol. xxxix.

E. Mendel found in a merchant, 37 years of age, a melancholiac who sat still all day, moaning and sighing, withdrawing from everybody, who did not want to speak and had visual hallucinations inspiring fear, five small tubercles on the pia mater of the parietal lobe. —*Neurologisches Centralblatt*, 1882, vol. i.

L. Pierce Clark.—J. B—, 34 years old, German, married, no hereditary tendencies in the family. His illness began seven months prior to admission with intense depression from being out of employment. He attempted suicide with a razor. When questioned he replied in monosyllables. His articulation was slow and hesitating, and at times he broke down entirely, becoming emotional and unable to answer questions. Muscular tremor in tongue, facial muscles, and hands. Knee-jerks increased equally on both sides. He failed rapidly in health. He had mild convulsive seizures, not epileptic, and without loss of consciousness. These were followed by still further depression, the patient refusing absolutely to move. He died in one of the seizures eight months after admission.

The autopsy revealed four sarcomata of the dura mater, all over the right parietal region; the largest, containing bony and calcific tissue, was about the size of a large hen's egg, yet it did not bulge beyond the cranial surface, hence the non-recognition of the sarcoma before death. —*Journal of Nervous and Mental Disease*, May, 1898.

Sir James Crichton Browne.—A cancerous tumour of the brain involving the whole of the convolutions of the left parietal lobe, taken from a patient, M. B—, 66 years of age, admitted into West Riding Asylum. Family and personal history good. Patient was one night suddenly prostrated by a stroke, which temporarily deprived him of power in his right arm, and of vision in his right eye. Within a few days he recovered the use of both these organs, but from that time a distinct change was observable in the patient's mental condition. He was at first listless and indisposed, later he became agitated, and was greatly and unceasingly disturbed as to the safety of his soul. Moved by his fears on this account, he would wander about the house during the night, wringing his hands, and would even talk to his relatives about the desire which he felt to put a period to his earthly misery. On admission to the asylum he was depressed in spirits, and felt, he said, as if he was being perpetually upbraided by his conscience for having neglected to seek salvation. His memory was found vigorous, his face expressed pain, he was now restless, sighing, and weeping, and again he was quiet and stolid, taking little or no interest in what was going on around him. All his muscles were tremulous. At the end of a month it was noted that the patient had become more melancholic. When spoken to, he would, in attempting to reply, dribble into an incontinent emotional overflow of tears. He gradually got paralysed on the right side and grew feebler. He died two months after admission.—*British Medical Journal*, 19th April, 1873.

Th. Sarlan.—Patient, 31 years of age, father of five children, complained of a sensation of pressure in the parietal region, of sleeplessness, restlessness, and fear; he easily wept, was afraid of becoming mentally deranged, and had the delusion of suffering from lues. Against the counsel of his medical advisers he subjected himself to an inunction cure. His anxiety and fear continued to increase in intensity, and one day he made an attempt at suicide. Patient wept a good deal, searched his whole life for possible causes of his misery, and had

to be admitted to the asylum, having suffered for five years, for melancholia agitans. The post-mortem revealed a sarcomatous tumour of the parietal lobe.—*Allg. Zeitschrift für Psychiatrie*, 1886, vol. xlviii.

Other cases are—
T. S. Clouston, *Journal of Mental Science*, July, 1879.
Alexander Hood, *Phrenological Journal*, Edinburgh, 1825, vol. ii.
W. A. F. Browne, *ibid.*, 1835, vol. xii.
Th. Zacher, *Archiv für Psychiatrie*, 1888, vol. xix, Case 3.
H. Oppenheim, *ibid.*, 1890, vol. xxi, p. 577, Case 9.
Czermak, quoted by Griesinger, *Mental Pathology*, 1877.
Marot, *Bulletins de la Société Anatomique*, 1875.
Philippe Rey, *Annales médico-psychologiques*, 1882, p. 70.

IV. Inflammatory Diseases of Central Parietal Area producing the Mental Manifestation of Melancholia.

Timot. Riboli.—Melancholia, operation, recovery.

A woman, suffering for four years with melancholia, complained of constant pain on the right side of the head. There was a swelling, size of a walnut, visible on the parietal bone. This was incised, and pus escaped. It re-formed, and was again opened by the patient accidentally knocking against it. It was then noticed that the bone beneath was necrosed, and admitted a finger to the brain, whose membranes were not adherent to the bone. Since this accidental opening the melancholia of the patient disappeared and, after the necessary surgical attention having effected a closing of the wound, and no depressing symptoms having returned for half a year, the patient was allowed to return to her home.—*Fil. Seb.*, April, 1848.

F. Lallemand.—M. Thavernier, captain in the army, 42 years of age, after some bad news, became suddenly deeply melancholic, refusing to speak another word. Softening of the left parietal lobe was found post mortem.—*Recherches anat.-path. sur l'Encéphale*, Paris, 1830, vol. ii.

E. Kundt.—H. M—, 33 years of age, married, always good-humoured, changed half a year ago after a sleepless night. He made an attempt to hang himself, but was rescued in time. He gave expression afterwards to delusions of melancholia. He believed himself a thief, a bad and lost man. He was starving because, as he thought, his stomach would not hold the food, it being so constructed that it let everything fall through. He died of phthisis. *P.M.*—Pia over the parietal lobe was thick, milky, and the brain substance beneath atrophic.—*Allg. Zeitschrift für Psychiatrie*, 1894, vol. l.

The same author.—K. Poter, 41 years of age, melancholic, with hallucinations of hell. *P.M.*—Leptomeningitis of parietal lobes extending to frontal.—*Ibid.*

Albert Rosenthal.—W. K—, a gardener, 30 years of age, twice admitted for melancholia. *P.M.*—Left parietal lobe much softened.—*Centralblatt fur Nervenheilkunde*, December 1st, 1889.

Auguste Voisin and Ch. Burlureaux.—G—, a woman 40 years of age, single, "virgo intacta," now in her menopause, had attempted suicide. On admission hot tears rolled down her face, she was all a-tremble, and disinclined to afford any information until a few days after, when she considered herself no longer ill. A stage of excitement followed, after which she again spoke of suicide. The autopsy revealed thickening of the meninges, limited to both parietal lobes, yellow sticky exudation, and injection of the white substance in this region.—*De la Mélancolie*, Paris, 1880, Case 7.

The same authors give numerous other cases of the same nature.—*Ibid.*

L. F. Calmeil.—General paralysis and melancholia.

P—, who had repeated attacks of profound melancholia. The first when twenty-two years of age, another serious one six years later, which caused his confinement for three months in the asylum at Charenton. Five weeks after his release had a third attack. The fourth when thirty-eight years of age, combined with an exaggerated self-consciousness or self-esteem; thought himself much above other folks, and carried his head high and his body erect. Still he remained silent, and his expression was of disdain. He rapidly broke down and wasted. *P.M.*—The grey matter on the surface of the parietal lobe showed a focus of wasting where it had the appearance as if it had been scooped out.—*De la Paralysie*, 1826, p. 260.

James Shaw.—Melancholia with left hemiplegia; circumscribed softening.

A. C—, a housewife aged 46, was admitted with symptoms of advanced phthisis. The medical certificate stated, "Very depressed and melancholic in character. Has attempted to commit suicide, and says she will do so again, as she is tired of her life." On admission there was left hemiplegia of face, tongue, and extremities. Vision of left eye defective. No hallucinations. Low-spirited. She died four months after admission. *P.M.*—In the right cerebral hemisphere there was a large irregularly shaped focus of yellow softening, including nearly the whole of the angular and supra-marginal gyri.—*Brain*, 1882, vol. v.

The same author.—Another case of left-sided hemiplegia. Depression with suicidal attempts. A large focus of yellow softening, as deep as the cortex, involving the whole of the right parietal lobe except the ascending convolution and the posterior half of the superior parietal.—*Ibid.*, 1895, vol. xviii.

Other cases are—

Dr. Bourneville, *Archives de Neurologie*, Paris, vol. i, 1880.

C. Gallopin, *Annales médico-psychologiques*, September, 1879.

David Ferrier, *West Riding Lunatic Asylum Medical Reports*, 1874, vol. iv.
Percy Smith, *Journal of Mental Science*, July, 1890.
J. Kirkbridge, *American Journal of Insanity*, October, 1879.

V. Hæmatoma of Dura Mater, False Membranes, and Arachnoid Cysts, producing the Mental Manifestation of Melancholia.

A pathological state which has puzzled many eminent observers is the hæmorrhagic effusion, so frequently found on the surface of one or both parietal lobes of the cortex, which, if the patient remains alive, organises and forms a false membrane. The membrane may present two distinct laminæ, containing altered blood or serum, forming a cyst. The layer of blood or membrane may be large and extend towards the front, or more frequently towards the base, but the greatest thickness is to be found under the tubera parietalis, thence tapering off gradually.

These hæmorrhages seem to originate in the parietal area, and there are two forms of them :

1st. The primary hæmorrhagic effusion of pial origin due to vaso-motor disease, and non-inflammatory in character.

2nd. The other, a primary inflammatory change, a circumscribed pachymeningitis interna hæmorrhagica, produced by a violent congestion of the vessels of the pia mater which occupy the summit of the gyri.

The non-inflammatory form appears to occur oftenest through sudden fright, mental shock, or other severely depressing emotional disturbance.

The inflammatory form appears to occur chiefly in such mental diseases as may be ushered in through an attack of melancholia, such as general paralysis of the insane.

Both forms appear to be common in long persistent anxiety.

Whenever the effusion or membrane extends beyond the parietal area other symptoms appear.

In support of this clinical observation may be quoted the experiment of Kremiansky, of St. Petersburg, who produced artificially a pachymeningitis hæmorrhagica circumscripta in the parietal region of dogs, and observed their mental changes.

The animals exhibited morbid fear, and for a long time refused food.

Dr. Fröhlich.—C. U—, 46 years of age, wife of a manufacturer, suffered from melancholia. She was brutally treated by her husband. Her fear and anxiety were intense, she refused all food, considered herself a great sinner, wished herself dead, and made an attempt at suicide. On admission she had delusions of having to die a frightful death, fears of being put in a boiler with seething oil, and being swallowed by serpents. Pretending to get a breath of fresh air at the window, she, in an unobserved moment, committed suicide by hanging. The autopsy revealed hæmorrhage under the parietal tuberosities.—*Allg. Zeitschrift für Psychiatrie*, 1875, vol. xxxi.

Auguste Voisin and Ch. Burlureaux.—G—, a woman 34 years of age. Though she never had any serious illness, she suffered constantly with palpitations of the heart and several times fainted in the street. Her mental change dated from the bombardment of Paris, when she became much frightened as to the consequences. Her fears received a further stimulus during the days of the Commune, when she saw the funerals of the victims pass her house, and inquiries were being made after her husband, who had refused to take up arms. For two months her conversation consisted only of one phrase, which expressed her fear. She gave up all interest in her household and her work. Hearing the thunder of cannon one evening she grew excited, smashed the furniture, tore her clothes, and attempted suicide by jumping out of the window. After her rescue she refused all nourishment, and being unmanageable her husband placed her in the hospital. On admission she seemed terribly emaciated. Her face bore the aspect of terror. The physical examination took place with difficulty; both heart and lungs were found normal. Her excitement abated, and she relapsed into a state bordering on catalepsy, had to be fed with the œsophageal tube, and uttered only a few words of terror. She wasted more and more, and just before her death had another attack of furious excitement. No fever. She died comatose the next morning.

Autopsy.—There was a small subarachnoid cyst over the left parietal lobe. The arachnoid in this region was studded with numerous yellow spots, size of pins' heads, which, on microscopical examination, turned out to be dilated capillaries, filled with hæmatosine granulations, hæmatine crystals, mostly discoloured, and blood-globules.—*De la Mélancolie*, Paris, 1880, Case 4.

The same authors adduce numerous other cases of the same nature. *Ibid.*

Pliny Earle.—A false membrane over both parietal lobes, with remains of hæmorrhage, was observed in a woman, Mrs. A. M—, widow, æt. 44 years, who had been melancholic for over a year. She had once attempted self destruction. She refused to eat, wanted to be buried, and even when her disease had so far progressed that she was barely able

to speak, she wearied herself with self-accusations and her destiny.—*American Journal of Insanity*, vol. ii.

S. G. Webber.—A case of melancholia with paraphasia. Patient was depressed, and was said to have attempted suicide. A double-edged knife was found on his person. Once he had visual hallucinations. His speech improved and he left the hospital. Three months afterwards he was brought in dead, having cut his throat.

The autopsy revealed in the supra-marginal convolution a cavity about three fourths of an inch in diameter, filled with dark red serum and crossed by many bands of fibrous tissue.—*Boston Medical and Surgical Journal*, December 20th, 1883.

Dr. Brie.—Catharina —, single, æt. 36. Five years before her admission she showed the first signs of melancholy; as cause was given *rejected love*. Her condition gradually got worse; she had no interest for anything, remained silent, preferably in bed, and when disturbed she was unfriendly. *P.M.*— There was in the medullary substance of each angular gyrus, right and left, a hæmorrhagic focus, with softening of the neighbouring parts.—*Neurologisches Centralblatt*, 1897, p. 2.

Dr. Amelung,—Christine R—, æt. 39 years, single, hitherto healthy, got terrified by the news that the house in which she lived was on fire. She ran home, arrived perspiring and exhausted, became feverish and in two days' time developed paroxysms of fear, which necessitated her confinement in an asylum. She died a year after. The post-mortem examination revealed a pseudo-membrane, limited to the right parietal region, with remains of hæmorrhage.—*Bericht über das Hofheimer Spital*, 1844.

F. C. Hoyt.—Pachymeningitis hæmorrhagica interna chronica in a patient suffering with melancholia and suicidal tendencies. A blood-cyst was found in the right parietal region.—*Medical Record*, New York, 30th April, 1892.

Rudolph Arndt.—In this case a pseudo-membrane extended over both parietal lobes. On the left side clear yellow fluid was found beneath the thick membrane, pressing on the brain, and flattening the convolutions. The following is the clinical history:—H. B., æt. 25 years, watchmaker, mentally always very bright and lively, was noticed by his parents about six years before admission to change in mood and become melancholy. Mentally and physically he became very inactive; nothing interested him any more. He sat still the greater part of the day, rarely uttering a word; betrayed an anxious uneasiness, and was ultimately removed to the asylum. On admission his face was found pallid and expressionless, pupils wide, their reflex activity poor, extremities cold. The emotional state apathetic. He died of phthisis after five years' residence.—*Virchow's Archiv für Pathologische Anatomie*, 1871, vol. lii.

Dr. Seidlitz.—Stated a case of a girl, N—, a confirmed melancholiac, who thought herself guilty of many sins, read the Bible incessantly,

and asked her parents and Heaven for pardon. *P.M.*—There was hæmorrhage over both parietal regions.—*Oppenheim's Zeitschrift fur die gesammte Medizin*, 1841.

F. Lallemand.—Patient, a widow, æt. 54 years, melancholic, died on the 12th day of her admission to the hospital. *P.M.*—Localised hæmorrhage over parietal lobe and softening of it.—*Recherches Anatomico-Pathologiques sur l'Encéphale*, Paris, 1830, vol. i, p. 25.

The same Author.—Pierre A—, æt. 55 years, suffered six paralytic strokes within five months. Patient was in a melancholic state, easily excited to tears. *P.M.*—There was a false membrane and signs of hæmorrhage in the left parietal region.—*Ibid.*, vol. ii, p. 237.

The numerous cases, quoted by Aubanel, of patients who had received sudden mental shocks may further be referred to. Evidently a raptus sanguinis took place, for more or less organised blood and false membrane were found *post-mortem.—Journal de l'Anatomie et Physiologie du Système Nerveux*, 1843, *and Annales Médico-Psychologiques*, vol. ii, 1843.

Cruveilhier made similar observations.

L. F. Calmeil published a large number of cases of melancholiacs in whom *post mortem* were found the remains of hæmorrhage and false membranes.—*Traité des Maladies Inflammatoires du Cerveau*, Paris, 1859.

Ludwig Meyer.—John R—, æt. 38 years, melancholic for seven years. Always depressed, weeping a good deal and expressing his fear and anxiety. *P.M.*—Localised pachymeningitis of the parietal regions with false membrane. Hæmorrhagic infiltration in this region.—*Archiv für Psychiatrie*, Case 27, Berlin, 1872, vol. iii.

D. J. Cunningham.—Has produced a case with a large subarachnoid cyst, involving the entire supra-marginal and angular convolutions. Patient was much given to hysterical weeping. He was a man of huge frame and his pituitary body was found enlarged.—*Journal of Anatomy and Physiology*, 1879, vol. xiii.

S. Pozzi.—Lecrosnier, æt. 64 years, melancholic, tried to jump out of the window, saying his last hour has come. He subsequently had epileptiform attacks. On his death there was found hæmorrhage over the parietal region of the brain and œdema of the cortex beneath.—*L'Encéphale*, 1883, vol. iii.

Other cases are—

Gairdner, Robertson and Coats, *British Medical Journal*, 1st May, 1875.

W. Julius Mickle, *Journal of Mental Science*, January, 1880, Case 5.

Joseph Wiglesworth, *ibid.*, January, 1888, Case 2.

Philippe Rey, *Annales Médico-Psychologiques*, 6th Series, Vol. viii, Case 2.

Dr. Joffé, *Vierteljahrschrift für Psychiatrie*, 1867.

VI. Symmetrical Atrophy of the Parietal Bones in Melancholic States of Mind.

The localisation-theory has helped the author to yet another valuable result. Numerous observers, Larrey, Broca, Virchow, Rokitansky, Maier, Chiari, Féré, George M. Humphry, and others, have been in possession of skulls with symmetrical depressions of both parietal bones. There is also one in the College of Surgeons' Museum in Lincoln's Inn Fields. They have described the "naked eye" and "minute" anatomy of these deformities, but were unable to discover the cause. Only cases duly authenticated and well taken are quoted, in all of which a clinical history was obtainable, such history being invariably one of psychical pain or of melancholia.

These parietal depressions ordinarily exist on the two sides and are symmetrical in position, and more or less so in size. They are some distance on each side of the sagittal suture, if not on the parietal tuberosity itself. The thinning is sometimes so considerable as to produce a hole in the centre. These depressions do not present any indications of being the result of disease, such as syphilis, as Rokitansky has assumed. They are certainly not the result of external influences or accident. Change in the circulation alone would not cause in the part such a circumscribed symmetrical wasting. These depressions are not congenital, as Humphry thought, nor is Maier correct in attributing the circumscribed thinning of the skull to senile atrophy. From the cases about to be detailed it will become evident that these localised changes in the skull are due to trophic influences, accompanying the melancholic state, limited as a rule to the parietal bones, or originating at least in them.

H. Schüle.—Mrs. X—, a very clever woman and excellent mother, had consulted numerous European specialists about an ear trouble and subjective noises, but without result. As her complaints got worse, and the old lady of seventy-seven wasted away and repeatedly attempted suicide, so that she had to be watched day and night, her admission into the asylum was arranged.

On her admission it was quite evident that she was suffering from very acute hypochondriacal melancholia. The accompanying physical symptom was an acute neuralgia of the left trigeminus, which in the head was particularly painful, and confined entirely to the left parietal bone. In conjunction with the severity of the neuralgic attacks were most acute feelings of fear, which made her groan and utter cries of lamentation. Sometimes her respiratory movements during these attacks were quick and accompanied by sounds as if she were struggling for air; at other times she seemed to lie half dead with hardly perceptible breathing as if totally oppressed. The clinical curiosity of this state was that, with the appearance of these symptoms, there was connected simultaneously and in the same degree growing or diminishing melancholia, which made the patient, who had otherwise a strong will, a helpless despairing woman, weary of life and attempting self-destruction. The attacks lasted sometimes hours, sometimes days, and were accompanied either by active movements of despair or by passive signs of helplessness.

This state went on for months, when a new symptom arose, a disturbance of sensibility, a painful creeping sensation confined again to the left parietal bone, *exactly to the tuberosity*, where there was a trough-shaped depression susceptible to the touch. If asked for the seat of the pain, patient would always lead the hand of the doctor to this particular region. There was another symptom at the same time, an increasing affection of the vaso-motor system,—a blushing of the left cheek and hyperæmic areas of skin corresponding exactly to the points of exit of the cervical nerves. These parts would get suddenly red and as suddenly pale again, the cheek being one moment hot, and as suddenly again cold.

The patient was constantly occupied with her physical condition, and wanted to die. She sought help in another institution too, then tried home life again in the hope that the surroundings of her children would bring relief; but all in vain! She returned, and after months of agony, still presenting the picture of hypochondriacal melancholy, she wasted more and more, and died five years after her first admission.

Post-mortem.—On the left parietal bone, corresponding to the tuberosity, there was a depression two inches long and one inch deep, with slowly diminishing edges. The part was so thin that, held against the light, it was perfectly transparent. The rest of the skull showed hyperostosis, and in some places even exostosis, so that the skull resembled a plastic relief map of mountain ranges.—*Sectionsergebnisse bei Geisteskranken*, Leipzic, 1874, Case 1.

Ludwig Meyer.—C. T—, forty-four years of age, single, became melancholic in his forty-first year, it is said through disappointment in love. Hydrochondriacal delusions of changes in his own body, effected by women. Repeated paroxysms of fear, with a tendency to self-mutilation; one attempt, cutting his veins in neck and at wrist, nearly caused his death. On admission he wailed and moaned over his supposed misery. Had attacks of acute fear. He died of phthisis. The autopsy revealed atrophy of both parietal eminences.—*Archiv für Psychiatrie*, Berlin, 1872, vol. iii, Case 20.

Dr. Rossbach.—Patient, æt. 58 years, was healthy up to her twenty-fourth year. Then after a great grief, over the death of a child, she felt severe boring pains in her head, and soon a depression the size of a coffee bean was noticed about the parietal eminence. The depression increased in size during the thirty-four years and there was now also one on the other side, and she had become also more emotional. At the time of consultation the depressions were 10 cm. long, 1 cm. broad, and 1 cm. deep.—*Deutsches Archiv für Klinische Medizin*, 1890, No. 46.

The same author, at the Annual Meeting of the German Lunacy Specialists in 1889, showed another patient with symmetrical atrophy of both parietal bones, which commenced after severe mental anxiety.

Rudolf Bloch.—On symmetrical atrophy of the cranium in a patient suffering from melancholia.

Patient, æt. 86 years, had a round depression on each side of the parietal bone of 4½ cm. diameter on the right side and ½ cm. smaller on the left side. Patient was in a condition of mental depression and gave evidence of anxiety. Tremulous, slow of speech, hesitation in answering questions. Suicidal history in the family. She suffered until three years previously with boring pains in the area of the brain, corresponding to the parietal lobe. It was ten years previously that the depression was noticed while combing her hair. Her mother had similar depressions in the cranium. Two weeks prior to her admission her low spirits increased so much that she made several attempts at suicide, first trying to knock her skull in with a hammer; there was still an open wound; and a day later with a knife, which latter attempt was prevented in time. Patient's intellect appeared normal. She admitted having been low spirited, sad, and anxious, but denied having fostered suicidal thoughts. Her painful expression altered but little when she spoke. There was always a long pause between question and answer, and each word and syllable was uttered as in a plaintive mood. She wrung her hands despairingly at times.

Later on it was ascertained that she had been in the Institution some thirty years before, and on looking up the documents it was discovered that she was then treated for her state of fear and depression and boring pains in her head, and that she then shortly before her admission had made four attempts at suicide, two by drowning, one with a pocket knife, and one with a razor.

She was, on admission, æt. 86 years, and no intellectual defect could be discovered. The diagnosis made was "melancholia." She died shortly afterwards. *P.M.*—An examination macroscopically and microscopically showed that in the thin cranial parts the lamina externa and diploë were completely absent, whereas the lamina vitrea appeared unchanged; at the borders, which were thickened to the extent of 1 cm., the diploë was heaped up and there was hyperostosis of the lamina externa. The foramina were normal, and the walls of the meningeal artery were also sound. (*Prager Medizinische Wochenschrift*, 1897, No. 13).

R. Virchow showed at a Medical Meeting at Würzburg, in 1854, the skull of a man whose chief symptoms besides pain and giddiness were intense melancholy, and whose facial expression had been observed to be always one of supreme sadness. On both parietal bones, exactly corresponding to the eminences, the bone was so thin as to be perfectly transparent when held against the light.

Dr. Virchow described the morbid histology of this affection minutely in the *Verhandlungen der Phys. Med. Gesellschaft zu Würzburg*, 1854, vol. iv.

Other cases are—
W. Fraenkel, *Allg. Zeitschrift fur Psychiatrie*, 1877, vol. xxxiv.
Dr. Kirchhoff, *Ibid.*, 1883-4, vol. xxxix–xl.
H. Voppel, *Ibid.*, 1857, vol. xiv, Case 39.
Journal of Nervous and Mental Disease, 1890, vol. xvii, p. 720.

VII. Cases of Melancholic States of Mind combined with Psychical Blindness and Word Blindness.

The next cases are such as have shown symptoms not only of different degrees of melancholia, but in addition the symptoms attributed to the angular and supra-marginal gyri by other observers, viz. word blindness and psychical blindness. The melancholy need not persist; there may be merely a sudden, strong, depressing emotion at the outset, which is followed by "word" or "psychical" blindness.

William MacEwen.—Psychical blindness, melancholy, operation, recovery.

A man who had received an injury a year previously suffered from deep melancholy, strong homicidal impulses, relieved by paroxysms of pain in the head, of indefinite seat. Though the pain was excruciating he welcomed it, as it temporarily dispelled an almost irresistible impulse to kill his wife, children, or other people. Prior to receiving his injury he had been quite free from impulses of this kind, and had led a happy life with his family. There were no motor phenomena; but on minute inquiry it was discovered that immediately after the accident, and for about two weeks subsequently, he had suffered from psychical blindness. Physically he could see, but what he did see conveyed no impression to his mind. He was word-blind as well. These phenomena gave the key to the hidden lesion of his brain. On operation the angular gyrus was exposed, and it was found that a portion of the internal table of the skull had been detached from the outer, and had exercised pressure on the posterior portion of the supra-marginal convolution, while a corner of it had penetrated and lay imbedded in the angular gyrus. The bone was removed from the brain and re-implanted in proper position. After a while

he became greatly relieved in his mental state, though still excitable. He has made no further allusion to his homicidal tendencies, which previously were obtrusive, and is now at work—*Lancet*, August 11th, 1888.

Other cases are—

J. M. Charcot, Psychical blindness, word blindness, melancholia, *Le Progrès Médicale*, July 21st, 1883.

Dr. Cotard, Psychical blindness and "anxious" melancholia, *Archives de Neurologie*, May, 1884.

C. S. Freund, two cases, *Archiv für Psychiatrie*, 1889, vol. xx.

G. Anton, Symmetrical lesion of both parietal lobes, psychical blindness and catalepsy, *Wiener Klinische Wochenschrift*, November 30th, 1899.

A. Chauffard, Cerebral blindness and catalepsy, *Revue de Médicine*. November, 1881.

VIII. Cranial Disease and Congenital Abnormality of Central Parietal Area accompanied by Melancholic States of Mind.

Such cases are—

Henry Handford, Parietal osteoma treated by trephining, *British Medical Journal*, March 11th, 1899.

M. Gamberini, Parietal exostosis due to injury. Recovery, *Bulletine delle scienze mediche de Torino*, April, 1848.

W. Julius Mickle, Syphilitic periostitis of the right parietal bone, commencing with Melancholia and suicidal tendency, *Journal of Mental Science*, October, 1879.

M. Rivet, Abnormally large parietal eminences, *Bulletins de la Société Anatomique de Paris*, 1887, vol. ii.

Dr. Tacheron, Cancerous exostosis of left parietal bone, *Rech. Anat. Path. sur la Méd. Prat.*, 1823, vol. iii.

H. Voppel, Abnormally large parietal eminences found in "imbeciles" suffering from melancholia, *Allg. Zeitschrift für Psychiatrie*, 1887, vol. xiv, Cases 13, 19, 35, and 37.

IX. Experimental, Anatomical, and other Evidence.

At the basis of melancholia is the "emotion of fear." We have seen the frequency of lesion in melancholia in the supramarginal, angular, and neighbouring gyri. It has also been shown that the function attributed to this area by Munk, *i. e.* psychical blindness, frequently coexists with melancholia. What we shall demonstrate now is that excitation of the same

area and destruction of it causes excitement, or loss of fear respectively.

Fear is an all-pervading emotion affecting the whole body, and exercising its influence over the entire brain; but those who argue that for these reasons fear cannot be localised, forget that impulses of the brain, different in kind, must—if there be anything like order—travel along different nerve-paths; and though the effect of such an impulse may be an all-pervading one, there must be one spot from which the impulse starts.

This emotion exists in man and animals to avoid danger and to save themselves. It is necessary for the self-preservation of the animal, and has for its object the withdrawal from danger. This must happen automatically, else it is useless. There is often no time for reflection. The emotion of fear arises from the retentiveness of pain suffered, which is stronger in one man than in another. Co-ordinated with the intellect this emotion is the foundation for prudence, foresight, circumspection, caution. These latter dispositions are complex. The emotion of fear, however, is a simple state, and when morbid, as in the different degrees of melancholia, should if localisable be accompanied by a change in the limited area of the brain cortex. That this is the case we have seen.

1. Excitation of the lower extremity of the ascending parietal convolution, the area which Dr. Savage observed to be frequently connected with melancholia and hypochondriasis, results in "retraction of the angles of the mouth" through contraction of the platysma myoides muscle—the same muscle which was observed by Darwin and Sir Charles Bell to contract strongly under the influence of fear, while Duchenne called it *the muscle of fright.* The drooping of the jaw may be observed in melancholia as well as in fear. It gives the face an elongated appearance.

Th. Ziehen of Jena described three cases of paralysis of those branches of the facial nerve which go to the mouth, with the accompanying mental symptoms of melancholia.

2. Hermann Munk (*Ueber die Functionen der Grosshirnrinde*, Berlin, 1881) destroyed the area in question. When the dog had recovered from the effects of the operation, "the sight of the whip, which had formerly frightened the animal away to a corner, had now not the least terrifying effect" (p. 29). The dog could see the whip, but was no longer frightened of it, for

it had lost its significance to him. A monkey, similarly operated on, which "was formerly a spirited, lively and active animal, now hovers in a corner, immobile and apathetic. Even when taken out of the cage he will not move, and if brought to do so by blows, he has a non-perception of obstacles and dangers, so that he knocks against everything, falls from the table, etc."

Similar results were produced by Ferrier. The animal "would not stir from its place," "paid no attention to threats," and when forced to move "it ran its head full tilt against everything that came in its way."

Moleschott, of Giessen, noticed that immediately after destroying in pigeons the portion of brain corresponding to the parietal lobes in man, they showed a total imperception of danger.

3. The central parietal area seems to have a special connection with the vaso-motor nerves. In melancholia, as in fear, the activity of those nerves is increased, hence increased tension of the arteries, increased blood-pressure, pallor of the body surface, cold extremities, and præcordial distress. For this reason a drug which dilates the vessels, as amyl nitrite, has been found to give at least temporary relief. Meynert, Hoestermann, Otto Berger, Schramm, and others have used it in the therapeutics of melancholia.

A. Eulenburg experimented on the superficial parietal region of the brain in dogs, and produced irritation of the vaso-motor nerves. Other experimenters had shown that simultaneously with the appearance of fear, fright, or anxiety, the blood-pressure rises, owing to a contraction of the arteries over a large area, and continues to rise according as these mental states increase in intensity.

I need only refer to Cramer's experiments "on the blood-pressure observed during the anxious attacks of melancholiacs" (*Münchener medizinische Wochenschrift*, 1892). Cramer found that whereas the average blood-pressure in normal man is 152 mm. Hg., it falls in cheerful people to 145 or 140 mm. Hg., and rises in anxious patients to 160 mm. Hg., and in the very anxious to 180 mm. Hg.

4. It is through the connection of the central parietal area with the sympathetic nervous system that melancholia is so closely concerned with our unconscious vegetative life. So

long as the internal organs perform their functions normally, we have no sensations of them ; when their functions become disturbed, we receive a sensation, such sensation being a "painful" one. Joy is never connected with visceral sensations ; it can only take place when these are in abeyance. According to the greater supply of sympathetic nerves that go to the visceral organ, the greater is the liability to depressing emotions. Hence the heart in fatty degeneration of its substance, and calcareous degeneration of its arteries may give rise to very great depression of spirits, and often to agonies of anxiety and terror. The lungs receive but a small supply of sympathetic nerves, hence the destruction of even large portions of their tissue rarely gives rise to low spirits, and never to extreme depression. The supra-renal glands receive an extraordinarily great supply of these nerves, and hence in Addison's disease of these bodies there prevails, from the very onset, languor and low spirits, and as the disease advances attacks of extreme terror become common. Next in rank stand the sexual organs, more particularly in women, where the organs are concealed, and have therefore a comparatively smaller supply of the cerebro-spinal nerves. After these organs must be placed the stomach, liver, kidneys, and the whole intestinal tract.

Probably it is to the sympathetic system, in addition to the effect of the general anæmia, that the alteration of nutrition in melancholia must be ascribed.

5. We know that the sensory fibres pass into the cord by the posterior roots, and reach by diverse paths the posterior third of the internal capsule, whence they pass to the parietal region, an area which Flechsig calls "Körperfühlsphäre," translated by Sachs as "somatic sensory area."

Pierre Dhem finds (*Disturbance of Sensibility in Melancholia*, Paris, 1896) that disturbances of sensation are the rule in the course of melancholia, whether the form of the disease be of the depressed, agitated, or dull type. There is one disturbance of sensation which is constant, viz., the loss or considerable diminution of tactile sensibility over a greater or less surface. The analgesia is often so extensive as to leave but a small portion of the surface healthy.

Tactile anæsthesia, without paralysis, has been noted in

lesions of the supra-marginal lobules by Dana (*Journal of Nervous and Mental Disease*, October, 1888).

W. v. Bechterew, of St. Petersburg, believes, from his experiments on dogs, that cortical centres for touch, sensibility, and the muscular sense really exist on the surface of the hemisphere behind the median gyri in the parietal lobe. After destruction of these parts there were marked alterations of sensibility, and he found that lesions of particular parts induce derangements of (1) feeling of touch alone, or of (2) the muscular sense, and (3) the sensibility to pain. The centres are believed to be situated in the angular and supra-marginal gyri (*Neurologisches Centralblatt*, 1883).

6. A second sensory system consists in the fibres passing from the lateral nucleus of the optic thalamus into the same somatic sensory area. Déjerine found (Soc. de Biologie, 20th February, 1897) that when the parietal lobe, and more particularly the angular gyrus, is diseased, the pulvinar and posterior portions of the external nucleus of the thalamus undergo degeneration. Ferrier surmises that the sensory fibres pass through the optic thalami on their way to the cortex, so that when they are destroyed insensibility of the opposite half of the body is produced.

7. Gall, who discovered the roots of many of the cranial nerves, including the real roots of the optic nerves in the anterior part of the corpora quadrigemina (supposed in his time to be in the optic thalamus), found converging fibres from these bodies to the central part of the parietal lobe. Hence the frequency of disturbances of vision, particularly contraction of the visual field, in sudden depression, fear, fright, shock, as in traumatic neuroses, and the visual hallucinations in melancholia. It is important to observe that in almost every case of bilateral concentric limitation of the visual field psychical symptoms are present, most often depressions of spirits, feelings of apprehension, easy excitement to terror. It occurs in forms of hysteria, whose exciting cause was fright, and in such patients whose illness is dated from the time of a certain "shock."

8. Flechsig, noticing in two musical composers, Bach and Beethoven, highly-developed parietal protuberances, locates the sense of music in the underlying convolutions. This is rather a bad attempt at a revival of the "bump" theory. Still

the author is grateful to him, for the case of Beethoven supports his theory. Not only was Beethoven as a youth already morose and distrustful of others, hence preferring solitude, but he became worse as he grew older. No better testimony could be quoted in support of the argument that a largely-developed parietal area bears some connection with the melancholic state than Beethoven's own words, as conveyed in his last will. He there says, "For me there cannot be any recreation in human company; I must live like an exile. If I get near company a burning anxiety overtakes me. Moral power alone has uplifted me in my misery. To it do I owe, in addition to my art, the fact that I have not ended my life by committing suicide." (See Schindler's biography.)

I fail to see in the photograph of Bach's skull which is in my possession, anything abnormal in the size of the parietal bones, and Bach's history shows him to have been a prudent, circumspect man, but not a melancholiac.

X.—Conclusions.

I.—All the evidence produced in this paper points to one conclusion, *i. e.* that a certain relation exists between the central area of the parietal lobe, namely, the angular and supra-marginal gyri, and melancholic states of mind.

(1) This is shown by over fifty cases of injury to the parietal tuberosity of its neighbourhood, which were severe enough to affect the brain or its membranes, and from the fact that half of these cases recovered under surgical operation.

(2) This is shown by the mental symptoms accompanying tumours growing in and limited to this area.

(3) Furthermore by the effects of inflammatory disease limited to this region.

(4) This is shown by the idiopathic hæmorrhage sometimes occurring under the parietal protuberance (subsequently forming false membranes or cysts) after sudden fright, severe mental shock, or other depressing emotional disturbance, or in mental diseases ushered in by an attack of melancholia.

(5) It is demonstrated that the symmetrical atrophy frequently observed to take place in the parietal protuberances,

is due to a trophic change accompanying a melancholic state of the patient.

(6) Cranial disease affecting this brain area, and congenital abnormal development thereof, may also originate melancholia.

II.—It is argued that simple melancholia has as its basis a morbid condition of the emotion of fear. This emotion, though all-pervading, must take its start in a limited portion of brain, which area, when fear is manifested morbidly, as in the different degrees of melancholia, must betoken some lesion. Experimental and anatomical evidence is adduced showing that:

(1) The physical expression of fear and its related states can be produced in animals by the excitation of the central parietal area.

(2) That this same area has a close connection with the sympathetic nervous system and the vaso-motor nerves, which are both affected in melancholia.

(3) That in lesions of this area rise of blood-pressure, alterations of sensibility, disturbances of vision, and cortical blindness may accompany the melancholic state.

Clinical Studies in Pathological Dreaming. By Prof. A. PICK, Prague. Translated by JAMES MIDDLEMASS, M.D.

IN the year 1896 (1) I directed the attention of my fellow specialists, in the course of details of observations relating to two women, to the subject of pathological dreaming, till now only slightly investigated, and showed how intense hysterical dreaming states had been developed from previous reveries. The literature which has appeared since then contains but few references to this matter.

Havelock Ellis (2) incidentally took an interest in this subject, in so far as he included occasional voluptuous day-dreams (p. 13) under auto-erotism (the so-called mental onanism of Hufeland), and seemed inclined to regard reverie as, in many cases, an early stage of masturbation. Pierre Janet then took up the matter in his chapter on "Réveries subconscientes."(3)

He associates the reveries of children with the forms assumed at a later age, and shows how a person may have a very fixed form of this dreaming, and how, under pathological conditions, "si l'esprit s'affaiblir un peu," the hitherto concealed reverie may rise out of the depths of consciousness.

Näcke (4) lastly makes a short reference to day-dreaming in connection with H. Ellis; but he recognises its occurrence only "when activity ceases." It appears as a rule only under quite definite conditions, after fatigue, balls, weddings, in the honeymoon, etc. Cases in which it has an erotic colour he also regards as analogous to "mental onanism."

As I have shown in my first paper, there are so far only a few *clinical* examples of reverie in psychiatric literature. The works above referred to are likewise not concerned with the clinical aspect of this manifestation, so that this circumstance justifies me in now returning to the subject on the basis of recent observations. From these it is evident that the clinical symptomatology is very diverse, and that there exist various relationships between it and other psycho-pathological manifestations, a knowledge of which must also contribute to an understanding of these latter. (5)

The first case is that of a goldsmith, forty-three years of age, who some years before had appeared in the out-patient department of the clinic. In the year 1900 he was for some time admitted to the clinic. The anamnesis revealed the following facts. A brother of the patient is nervous. He himself had already suffered since his youth from the symptoms fully described below. His wife, to whom he has been married for ten years, soon after their marriage (so far childless) noticed that the patient often during the day, as well as during the night, when he was awake, spoke to himself, sometimes softly, sometimes loudly. From this she had concluded that he imagined himself to be, *e.g.* among his fellow-workmen, at the town council, or before the deputy-mayor. If spoken to he ceased at once, but gave no explanation, except once when he said that *various thoughts came to him against his will which he had to speak out, although he knew that it was all untrue.* In the last months the condition had become so bad that he could hardly work any longer, and on that account he had of his own accord gone into the clinic. Two years before the patient had also suffered from other "seizures." These at first had consisted of violent nodding of the head and trembling movements of the hands; later they became more severe. The patient during them became red in the face, sometimes struck his head with his closed hands, and also tossed his legs about in the bed. During these "seizures," which lasted about two to three minutes, he was unconscious, a fact which his wife strongly affirmed in contradistinction to the other "seizures" described

below. Once the patient stated that he believed the cause of his condition to be a poison given to him by his wife or her sister.

The patient himself gave the following history. As a child of three years he had unpleasant dreams, in which he saw figures gradually increasing in size, so that he cried out during the night. He now thinks that this was due to some medicine, which his mother, who did not like him, gave to him. As an apprentice he had had such "thoughts," *e.g.* he imagined himself as rich as his master. He had at that time during the day the same symptoms as were present later, but he must then not have spoken loudly. This fact stands out from the rest, that he even then believed he was accused by the trade guild, and that this whole scene presented itself to his mind in lively fashion during a discourse at the trade school. At the age of twenty-five he began to have the "seizures" of which he spoke. These lasted a quarter to half an hour and occurred usually when he was alone, and occasionally also when he was with others at work; in the latter case he had restrained himself and was not noisy. If he was alone at work he often spoke loudly, so that he was laughed at. In the "seizure" he always imagined that he was imprisoned or was quarrelling with some one. The attack was somewhat as follows:—Any situation whatever which suddenly came into his mind, he at once imagined that he was actually living in, and he entered into it with increasing intensity, and spoke, shouted, or acted, in accordance with this idea. For example, he would imagine that he was engaged in an argument with some customers in business, and that he ultimately turned them out of the place with his own hands. But during the whole of the "seizure" he was by no means out of touch with his surroundings; still the intensity of the situation occasionally overcame him. If the "seizure" occurred in the street he was perfectly conscious of passers-by, and then pulled himself together, being aware that he had to control his demeanour and speech. In spite of this his lively gesticulation and speech were noticeable. The content of his dreaming was various, being not infrequently taken direct from his reading. If he were reading in the newspapers, what he read was occasionally turned into actuality. It seemed to him once that he was in Africa, at another time in China. "*I know*," he said, "*that it is not true, but the idea is so strong.*" Very often the situation dreamed of was that he was arguing with his foreman or with an apprentice; that this person complained of him to his master; that they then went to the director of the trade society or to the deputy mayor to arrange the dispute; that the police intervened, and so on.

Observation in the clinic showed that the "dreaming" appeared in three forms. First, quite suddenly, during the day without any relation to the existing situation; secondly, under similar conditions during the night; and thirdly, and not seldom in such a way that it had some relation to a situation that had recently presented itself to him, or to something he had read. This was then further elaborated in a fantastic way. The whole thing took place as a rule in a tolerably uniform manner, and only varied from this in so far as that sometimes he spoke and acted excitedly; at other times, again, he remained

outwardly tolerably quiet. The last was the case, for example, when at the conclusion of a woman's visit to his room to give some information about her sister, he "dreamed" the following scene. It appeared to him as if the patient who was being spoken of was his sister, and that the sister who was telling the story did not see him and wished to conceal from him that the other sister was ill. (In reality he has only one sister, the other was "dreamed" of). Although he says he knew that the woman was a stranger, yet the idea became as vivid as though he were living the dream, and saw not the persons of his phantasy, but the real persons. At night the scene enacted was that the patient sat up awake in bed, spoke German and Czechish indiscriminately, and then became quiet and slept. The following morning he related that the attendant, owing to his restlessness, came to his bed. He then said, for example, that on the day after his wages had been paid some one accused him of having taken too much money. On this a quarrel arose, and he received a summons to the court, and so on. On another occasion, after severe toothache one evening, he stated on the following morning that during the night at one o'clock (at which hour he had been discovered by the attendant awake and speaking loudly), he had "dreamed" that he could not excuse himself from an offence against the council; that a watchman came and carried him off to prison, where he was flogged. The police-officer then asked him if he wished to offend the council, which he denied, then if he was sorry, after which he was sent back to prison. During the day the patient sought out by preference places where he would be alone and could talk to himself. If spoken to then, he does not at once react, but only after a short pause, and then quite correctly. As a rule, he states, the contents of his "dreaming" are usually quarrels such as he experienced in youth, though occasionally they are lascivious scenes. As to his night "dreaming," he states that if the lamp burns brightly his restlessness and speaking aloud are moderate, whilst he becomes more restless in the dark. This has also been observed by others. So far as an illustration can be given the following is as good as any. On the 22nd January it was observed that during the night, after he had been talking to himself for awhile, he suddenly sat up in bed, and, apparently giving someone a box on the ear, cried out —"Take that! Take that!" His face got red, and his head moved energetically to and fro; finally he struck the bed violently with his fist, threw himself back, and lay quietly. On another occasion the following conversation of the patient was noted by the attendant. "Who are you? Who are you? There is no noise here! You know me? You know me, do you? If he hurts me I'll complain of him." A few minutes' pause. Then again, "What is your name? What is your name?" Pause. "Why do you ask? Why do you ask? Because I must! Because I must!" Pause of about four minutes. "You buy that from the piece." This sentence is repeated several times. "What we want is honesty" (thrice repeated). Pause. "That was no trick! That was no trick! That is no offence!" (twice repeated). Pause. "What do you drink? You won't keep me from eating as well" (repeated). "I am no loafer" (twice repeated).

"What a scoundrel!" (repeated). "I am no loafer, no loafer; let us stop drinking; but they are talking nonsense. You must not drink with such silly people." Pause. "What is your name?" (repeated). Pause. "Eating is forbidden" (repeated). Pause. "If you have an agreement it depends on that" (repeated several times). Pause of five minutes. "Where does it stop?" (repeated). "I have no fear about it" (repeated); "we deduct all that, all that. Yes, you are the bait" (repeated). Pause. "Do you demand that?" (repeated). "You are wrong there!" (repeated). Long pause. "You have written a bad indictment!" (repeated several times in an increasingly loud voice). "There is justice no longer!" (repeated).

As to the relation of true dreams to the dreaming, the patient states that the one never passes into the other; the former are also on the whole not so vivid. For instance, he dreams of a fire or some other horrible thing and wakens at once.

Besides the symptoms fully described above, the patient showed various other less precise ideas of persecution, chiefly associated with his sexual life. These were then brought into insane relationship with "dreamings which he himself felt to be morbid and diseased." In his thirtieth year he had sexual intercourse for the first time, and got a chancre then. Before that he had got some horrid medicine from his sister, and later from his wife. With the latter he was unable to have sexual intercourse because she was too "small," and from this his excitement arose. In connection with the war of 1866, he also developed certain insane ideas, which it is unnecessary for our purpose to enter into more fully. His physical state showed nothing special; in particular the state of his nervous system presented no clearly hysterical stigmata. "Seizures" of a convulsive nature, described as occurring recently by his wife, were never observed during the whole of his stay in the clinic. His condition gradually improved a little under the influence of regular work, so that the night dreaming almost entirely disappeared, and that by day became less frequent.

The chief point to note in this case is that the reverie described has nothing whatever to do with the paranoia which developed later, and which does not especially concern us. As to the patient it is interesting to observe, in view of my first work, that he also is apparently hysterical. At least one may so regard the convulsions which have been described in the history, as also the nodding of the head and the tremors of the hand.

We see also that the reverie began to develop during youth. The phenomena described by the patient himself as occurring in his earliest childhood may perhaps be regarded as an example of *pavor nocturnus*, which it is acknowledged often appears as the forerunner of later pathological nervous conditions. As regards the content of the reveries, it is specially

noteworthy that, in consonance with the statement of Janet quoted at the beginning, this very often corresponds to the type which has been manifested during youth. One is therefore justified in bringing this phenomenon into correlation with it, so that the same significant occurrence affecting the emotional sphere always reappears in the delirious conditions of the hysterical. Both can, indeed, be placed in parallel lines, so that within physiological limits any significant occurrence in youth not seldom reappears in similar form in the later dreams of the full-grown period. I call to mind in this connection the frequent dream of students of the proof of their maturity. On the other hand, in this connection it is to be noted that, whatever the relation between night reverie and real dreams, there was none in this case. In view of the frequently uniform content of the reverie it appears to me of special interest, and possibly not yet quite clearly explained that, according to the testimony of the patient himself, as well as from clinical observation, it usually was apparent that the scene dreamed of usually, and perhaps always, came to an end when the word "just" or "justice" appeared. It is as if the associated emotion were in dissonance with it and the reverie brought to an end, just as the dream of the proof of maturity before mentioned—in my own case at least—was regularly broken off by wakening at the height of the emotion called up by the thought.

Further we see that the content of the reverie is not seldom associated with all kinds of things read about or experienced, so that one may speak of a formal disposition towards reverie in our patient, as was plainly apparent in the story about the woman mentioned in the history. On the other hand, in spite of the great intensity of this disposition, it is apparent that the patient stands in such a relation to his dreaming that the psychical connection with his surroundings is not abolished, that the whole thing proceeds, so to speak, in an intelligent fashion. One can, however, never establish even a hint of transition to a really delirious state, as was observed to some extent in the two cases of my first work. As regards the various influences which affect the intensity of the reverie there is only one really important statement of the patient, viz. the influence of light and darkness. This, along with the observation that the patient prefers to be alone, and apparently dreams

then, says much for the external sense impressions on the patient being of great importance. In my first work I have shown that feminine occupations, especially the old-fashioned knitting of stockings, which have little mental interest, not seldom form the basis of dreaming in young people. We see something of the same thing in this patient, who gave himself up to his dreams not only when he was idle but also during his work. One may therefore not improbably conclude that he was a skilful workman.

The second case refers to a law student, twenty-three years old, who last year came to the out-patient department of my clinic complaining that he suffered from "phantasies," besides various other neurasthenic symptoms, which prevented him from studying. At my request he wrote the following autobiography:—"From my eighth to my eighteenth year I practised mental onanism. (Actual masturbation was denied; after the fifteenth year erection and ejaculation occurred). I forget the details, but I recollect distinctly that these dream-pictures occupied my mind even in school days. In my nineteenth year these symptoms were infrequent, but other dream-pictures appeared in their place, so that later I always regarded their occurrence as usual and a matter of course, as a sort of childish pleasure. (He could not recollect building castles in the air when young, nor when he was older of indulging his imagination—introspectively—in the situation of a play).

"In the year 1897–98, whilst studying diligently but not very successfully for the State examination, I felt a settled depression on account of headache. I worked very irregularly (in October, 1897, not at all). During that time I certainly indulged my imagination, and frequently had self-reproaching on account of my "feeble self-consciousness."

"After the State examination I went to W—. As a reason for doing so I wrote in my note-book at the time, "tormented constantly by the diseased and quite unwarranted idea that every one regarded me in an unfriendly and disdainful way."

"In W— I lived free from care, always had mental occupation, and experienced no phantasies.

"In May, 1899, I noted in my book, 'suicidal thoughts frequent.' In October, 'the first week of October was the most coherent time for a long while, that I had not been visited by my wild phantasies, the products of the delusions of grandeur. In the following week I was back again to the old state.' The whole of the subsequent time showed the same symptoms.

"Among these I distinguished clearly:—1. Delusions of grandeur; 2. Delusions of persecution. To the first group belong the following fancies: *a.* I felt myself to be a great thinker; an authority in philosophy, art, technical and legal questions. These states were always of short duration, because I was always so interested in the subject that I treated it as a basis of real knowledge (in thought as well as in writing). *b.* I imagined myself in all possible professions and

callings (as an advocate, judge, bank official, technologist, manufacturer, a member of society, a friend), heard myself make speeches, but always so that every movement was seen and every word heard by others."

In a subsequent letter he states, that in his phantasies auditory impressions predominated.

When asked about the feeling of reality of the situation, he said, "I have had exactly the same sensation of being glad or ill as if I were really so. There were some vivid ideas which occasionally lasted for several days. I often sat with a book and yet could not study; since October of the previous year this has been specially the case. If I read anything exciting it did not disturb me. In liveliness of thought I have started up and run round the room. At the time when I have become more excited the reality has appealed strongly to my consciousness. At other times I have had a whole situation before my eyes, as, for example, of a duel, where I have seemed really to see the people who were present. The fanciful pictures have had various feelings associated with them.

When asked to give a sample of the course of a whole day he related the following:—"I sleep well, and get up at a quarter to five. I am then somewhat confused, and think I shall be so all day. I imagine I shall fail in my examination, and then consider how my relations will take it."

To the question whether this takes place quickly, he said:—"I am in a moment in a particular situation. I live through the failure in examination itself, as well as all the associated circumstances." He replied in the affirmative to the question whether this was so vivid that he was not conscious of his surroundings.

To the question whether he forgets that he is in a room at his lodgings, he replied:—"I imagine myself in other places. For example, I do not observe when some one comes into the room; so, also, I am not aware that breakfast has been brought in, but I remain in the situation dreamed of, which has to me the character of reality."

To the question whether, so long as he was not spoken to, the presence of a stranger did not disturb him, he said, "No; but if he speaks to me I recall my thoughts and answer correctly." Have you ever been so roused up and given an answer referring to the situation you were dreaming about? "No; my relations know nothing about it; I have never mentioned it to them." He was sometimes unconscious of his surroundings and ran about excitedly, twirling his moustache convulsively; he was apparently conscious, but occasionally did not reply to questions.

Does the situation persist? "Often a situation remains two days in the same stage, or it may disappear quickly."

Is the dreaming interrupted? "Yes; at meals and if I am in company. If I am not, then it is resumed where it was interrupted. Once it lasted two days, and I still think of it with horror. I then imagined myself a Boer general."

Have you taken a great interest in the Boer war? "Formerly I did not; but one day it came into my mind, and I thought of a

mistake which the Boer general had made and of what *I* should have done, and at the time I fancied myself a Boer general."

And actually taken part in the war? "Yes; and this lasted two days without interruption. I went to sleep feeling like a conqueror. I, however, repeatedly thought at intervals that I was only the student H—. But if this idea came into my head it did not last long, and I began again where I had left off."

When asked about the relation of real dreams to the phantasies he said, "Lately I have not dreamed at all; about two years ago I was troubled with horrible dreams."

What caused your phantasies to cease on the second day? "I was broken down and was ashamed of myself, because I always looked upon it as a weakness on my part. I thought, I do it to see myself honoured. For several years if I am going along the street and any one sees me with whom I have conversed before, I immediately think he has a contempt for me. Two years ago this impression was so strong that I was unwilling to remain longer in T—. I had then the feeling all day long that the people had a bad opinion of me, dogged my steps, and looked down on me, that they watched me or looked askance at me. In W—, where I was quite a stranger, I felt nothing of this. Then I returned to T—, and whilst at first I was indifferent and was not disturbed, the feeling reappeared after a time and phantasies were the result. For instance, I met some one in the street when in an unpleasant humour. I thought, how is this so to-day, began to reflect, and then saw that I was beginning to indulge in fancies once more. When I was in this mood a longing for happiness was developed. Such moods always precede the fancies, and a bad humour, of which I am not conscious, is the result; so at least I have always found out afterwards."

Do you conclude from this the existence of a latent mood? "Because I believed that the subject of my thoughts agreed with this mood, I afterwards was seized with the same mood. I remember the uncomfortable feeling I had when I met such and such a person in the street."

Has the dreaming lately been very bad? "For the last eight days it has been almost continuous when I have been alone. A fortnight ago I had resolved that if it could not now be prevented it did not matter at all."

How can you overcome the fancies? "I resolve not to allow them to begin at all, and then I think of nothing but what I see before me."

If you allowed your thoughts to wander, would they then run away? "Then the dreaming would return. The best thing is to fix my mind on realities. Then I succeed in preventing it for days."

Have you always the same fancies? "The last few days I have imagined myself in Prague. I said to myself I can study no longer, I cannot endure it, and have imagined myself in all possible situations. This went on so that, without knowing it, I began to weep. I imagined myself mad, and I was awakened out of my dreaming by the falling tears."

Regarding several other points the patient adds the following. The experiences of weeks are often passed through in a few hours, and those

of months in a few days, in his dreamings. The content of these experiences is not concentrated upon one of them, but is most diverse. The actions of daily life performed at the same time are not done automatically, but with perfect consciousness. The remembrance of them is quite clear. Occasionally the emotional conditions of the dreamy state are carried into real life. Optical impressions play the chief part in the dreamings, but he also hears voices. Intense thought, *e. g.* about an acquaintance can, after a little delay, call up a corresponding dreaming about him. A voluntary evocation of hallucinations does not occur.

In his bodily state the following facts were to be noted. There was nystagmus on moving the eyes outwards; the left pupil was somewhat the larger; the reaction of both was quite normal. There was slight difference in the facial muscles, the left being abnormal. There were fine tremors of the fingers when spread out; very lively knee-jerks; corneal reflex markedly diminished; conjunctival and scleral reflex absent; back reflex diminished; the field of vision on both sides extended outwards only to seventy, and appeared altogether somewhat narrowed.

This second case is noteworthy in so far as no hysterical symptoms could be made out with absolute certainty, consequently the "dreaming" must be regarded as in part a manifestation of a degenerate neurasthenic condition. The beginning of the manifestation is in this case also to be fixed at the period of youth, and is so far interesting that it furnishes us with a clinical paradigm of Havelock Ellis's view already cited of the relation of reverie to masturbation. (Compare also with this the quotation given later from a work of Moeli). As regards the phenomena of the reverie at a later time, the impression gained from all the circumstances is that they are relatively more intense in this case than in the previous one. In opposition to the latter, this patient evidently does not always get the better of the fancied situation; not infrequently his surroundings disappear before it, and the content of the dreaming clearly assumes the character of (hallucinatory) reality.

The greater intensity of the phenomena in this case is further manifest not merely in the fact that the patient can only with difficulty overcome it, but also in that the reality accompanying the reverie is only occasionally interrupted, and then reasserts itself where it was broken off. Contrary to the preceding case, in which the content of the dreaming disappears from active consciousness, one may conclude that in this case this content remains so to speak immediately beneath the tide

of consciousness, only to reappear once more on the surface whenever the moments of reality which suppress it pass away. This also explains how it is that the dreaming occasionally extends over several days. Moreover, by this view one can place in more intelligible relation the circumstance that the mood of the dreaming reacts on the free interval, which was not so in the previous case. We know definitely from the pathology of hysteria what enormous influence moods exert upon impressions lying in "sub-consciousness," and so we cannot fail to notice if the dreaming, which is only slightly withdrawn below the tide of consciousness, influences by its own tone the mood of the free interval. To the patient himself, however, this influence appears to be a consequence of the preceding dreaming. In relation to the influence of mood and dreaming, it is, on the other hand, of interest to note that the patient himself states that the content of the latter depends, not so much on external influences, as on his emotional states, even upon those which are only latent. From all the circumstances already mentioned the ready passage from intense thought to dreaming is also intelligible.

The third case relates to a clerk, eighteen years of age, who was brought to the out-patient department of the clinic on 15th February for the diagnosis of his extraordinary mental state. From the facts told by himself, and ascertained from his parents, the following history is given:—After leaving the national school he attended the gymnasium as far as the third class. From this he was expelled on account of his writing an anarchist letter to one of his teachers. In the technical school, also, which he then went to, he did not long remain, as he got into a quarrel with the principal. He then took up business, in which he did well until lately. From time to time he embezzled small sums, giving as a reason for doing this that he was seduced into it. He gave it away in such a manner that it was not discovered until a few days before, when he stayed away from home on account of a quarrel with his parents about money. This led to inquiries being made. During the last three days as well as nights, he had wandered about. The day before he stayed with friends, and took away a clock which was lying on a chest of drawers. As the theft was at once noticed, and suspicion fell on him, he was searched for and found at the railway station, where he was just taking a ticket to London. His father also stated that he had once said that he had lost money at cards in a coffee-house. On another occasion he had told a tale about a duel (imaginary) which he had had with an officer. He had, indeed, when a schoolboy also told lies, but not in this fantastic way. The father regarded the theft as pathological, because before as well as at the time of it he had quite regularly brought his wages to his parents.

Two friends of the patient stated that for a long time he had shown a tendency to loose living and visited brothels. He had also said that he would like to go to the Transvaal. On one occasion, when he banked a large sum, he said that he was going to run away to the East with a society lady. He also said he had lost twenty florins in gambling, which was not true. He had a special tendency to boast about his writings, and gave an account complete in all details of the duel which he had never really had. Latterly he roamed about, and then told tales of his having spent his time with a well-known family, to whose daughter he was engaged (also a falsehood). The friends further mentioned that they had sometimes seen him sitting staring in front of him for a long time, and when asked about this he gave as a reason that it was his own pleasure to do so. On going up for an examination, it was then apparent that the patient had "day-dreams." The "phantasy," as he called it, had begun in the holidays after he had passed through his fourth class in the national school. He was at that time induced by a companion to smoke cigarettes. He smoked a great deal, and the "phantasy" began after this. If he were alone in a room and his friends came into it and spoke to him he gave no reply. On the contrary, he thought to himself, "Why do these people come to me; what do they want with me?" He thought that at that time the smoke had an influence on the occurrence of the "phantasy"; "then, after that, if anything crossed my purpose, I always seized a cigarette, and by the enjoyment of smoking it I was able to think more clearly and undisturbed." He said he had told tales which he knew were not true, but whilst telling them he actually lived through what he was saying. The tale of the duel was such a "phantasy." Some one spoke about a duel, and thereupon he told his friend the tale, which appeared to him as vivid as if it had actually occurred. Afterwards he recognised that the tale was not true. The following statement of the patient is interesting as regards the sexual relations of the dreaming: "It is and was my custom before going to sleep to throw myself on the bed in my clothes. After lying so for a while the whole of my surroundings disappear; then a beautiful woman seems to sit or stand beside me and speaks to me. Often (but not always) I imagine a sexual act, and often I go to sleep then. But a seminal emission always occurs, which I discover at once, or more often after wakening." This scene has occurred three or four times a week for the last year. He practised masturbation till his sixteenth year, when he began to have ordinary sexual intercourse. The mental form of onanism he pretended to know nothing of. The dreams were associated with what he read and heard or with songs. The content of the phantasies were originally castles in the air. He thought of his future, how he would be a great teacher. At a later time, when there was a great talk of anarchism, this formed the content of his phantasy. Out of this arose the threatening letter to the professor of the gymnasium, the story of which has been given above. "I knew no more about it than that anarchists were adherents of a theory of lawlessness. This teaching, which I did not then understand, took such a hold on my mind that I considered myself not a phantastic anarchist but a real one." He converted several companions to

anarchism, and set before himself a scheme of carrying off the professor from the school if it were possible. This, then, so passed into his daily thoughts that, when called before the board of professors, he declared he was an anarchist. At a later period, in the technical school he was known as a dreamer. When he was spoken to he often was not aware of it. When he was counting he thought how it would be if the sums were really his own. At school he had no time to dream, but it came back later. When customers came in he did not attend to them; when he staked anything he did not know how much it was. On account of these things he was dismissed. He told the following story as being specially characteristic of his latest state. He had some business at the Excise Office. In the middle of this he said to the official, "Would you play that over to me again?" He only came to himself again when he was asked, "What do you say?" After a short time he replied, "We shall not pay the 700 fl." It had seemed to him as if he saw a young lady, who played something to him. He heard the waltz played rather indistinctly, and hence the request he made. When asked about his lies he said, "I had no intention of lying, but what I was relating appeared to be a real experience, even in the recollection of it, after I had lived through it once already. When I began to relate anything I seemed to experience so vividly what I was at the moment saying, that at the time I did not really know whether I had actually participated in the event or not." As regards the thefts he gave the following account: "Although I had lately quite a sufficiency of pocket-money, since September it often happened that I appropriated small sums. I had no actual need for the money, and often gave it away in the most perverse fashion, partly in sweets, good wines or liqueurs, or divided it on every possible occasion among those serving under me." As to his schemes of travelling, he persevered in trying to enlist for the Transvaal. He threw himself into this plan, though he was not quite able to see his way clearly through the whole of it. The theft of the clock was due to this idea, which had become fixed. How strongly this scheme had mastered him is characteristically shown by his father's statement that he yesterday said to the latter that he would bring him a free ticket to London, although he knew that his father was decidedly opposed to this. His statement is noteworthy that he now has no "dreaming." He was so full of the idea of going away that he had no time for it. By way of addition to the history it should be stated that the patient also writes poetry. There was little of interest in the specimens examined, which on the whole differed little from the poems of young people of his own age and imaginative power, except that frequently the contents formed the representation of a "dream." The investigation of his bodily condition shows that there is a diminution of the corneal, scleral, and back reflexes; the sense of pain is irregularly decreased over the whole body. Over both flanks there is a zone of complete analgesia; the field of vision is normal. The circumference of the skull is fifty-five and a half centimetres, and it is asymmetric, since the left half measures twenty-seven inches, and the right twenty-eight and a half inches. This asymmetry is also expressed in the bony framework of the face.

This case also is exhibited in a hysterical person, and is specially interesting on occount of the clearly demonstrable relation of the dreaming to various other manifestations which also appear in hysteria. In this case also we can trace the beginning of the dreaming to the period of youth, and in particular the nicotine intoxication appears to play an important part. As regards the continuance of the dreaming beyond the time when the smoking no longer forms the actuating cause, one obtains the impression, as in the previous cases, that habit clearly plays an important part. The case further is of note as a confirmation of Havelock Ellis's statement given at the beginning, It is unnecessary to enter here into further details of the phenomena of the dreaming. The agreement with the previous cases is too clear. Only this may be specially noted, that in this case the intensity of the manifestation is very remarkable. This is specially evident in one circumstance, on account of which I attach particular importance to this case. Since French authors have written on the fanciful lying of hysterics, great activity has been shown, during the last ten years, especially in Germany, in the investigation of what Delbrück ([6]) first of all fully described as pathological lying, named by him pseudologia phantastica. This author speaks on p. 24 of this work of "half-waking dreams of a hysteric," but from other passages it is quite clear that he does not have in his mind the phenomena of reverie described here, but refers to the transition from lies known to be so to those which the liar himself believes.([7]) In the case under consideration an essentially different relation is seen, namely, the occasionally clear transition from reverie to fanciful lying. The patient first falls, against his will, into a state of reverie, and afterwards this appears to him to have the same value as his previous recollections. It is reproduced by a deception of memory, and is then a lie of his fancy. It appears, therefore, that the lies due to fancy and regarded as real facts must be placed on another basis than that which has hitherto been usually assumed, in so far as I can gather from the literature given by Delbrück. Only in Mach's essay "Lüge und Geistesstörung" (*Zeitschr. f. Psych.*, Bd. 48, p. 285) do I find a reference in a case of "pseudologia phantastica" to its relation to day-dreaming. (This case also is noteworthy as showing an erotic character.) But whilst in Mach's case this relation is made out only from the history, in that

now described the relation was the subject of direct clinical observation. I cannot affirm with certainty whether anything similar to what is here related has already appeared in the literature concerned with the fanciful lying of hysterics, but it may be doubted, especially in view of the small amount of attention hitherto bestowed on the subject of reverie.

I may, in conclusion, summarise the results of the study of the cases described. These may be stated as follows :— Reverie is of specially frequent occurrence in hysterics ; but it also occurs occasionally in neurasthenia, as Féré has already shown. In by far the majority of cases it manifests itself as a development of a similar condition beginning in youth, and often shows a relationship, as Havelock Ellis first pointed out, to the condition named by him auto-erotism. With regard to the hold of consciousness upon the surroundings there are the most diverse transitions, from the vivid play of fancy to the delirious dreaming states of the hysteric. There are further cases of so-called "pseudologia phantastica," the basis of which must be sought in part at least in true reverie.

(1) *Jahrb. f. Psych. u. Neurol.*, xiv, p. 280.—(2) "Auto-erotism in Alienist and Neurologist," April, 1898, reprinted in the author's *Studies in the Psychology of Sex*.—(3) *Nevroses et Idées fixes*, 1898, p. 390. I have been unable to obtain access to a work of Partridge in *Pedagog. Sem.*, 1898, v, p. 445, but it is evidently not concerned with the *psycho-pathological* aspect of reverie.—(4) *Arch. f. Psych.*, Bd. xxxii, 1899, p. 374.—(5) Since the above was written I have been able, by the kindness of the author, to procure the paper of Dr. R. H. Chase on "The Imagination in Relation to Mental Diseases," *Amer. Journ. of Insan.*, vol. lvi, p. 285. As he does not enter into the clinical phenomena of day-dreaming, it is sufficient simply to refer to this paper here. From a reference quoted by him I conclude that Ray has also gone into this question.—(6) *Die pathologische Lüge und die psychisch abnormen Schwindler*, Stuttgart, 1891.—(7) In my first work (*loc. cit.*, p. 301) I have already directed attention to the difference between reverie and the fanciful lying of hysterical or degenerate individuals.

The Construction of Asylums in Tropical Countries.

By P. C. J. VAN BRERO, Physician to the Government Asylum at Buitenzorg, Java.

IN this brief sketch it is my intention to refer to a few of the points which I regard as having an important bearing on the construction of asylums in tropical countries.

Firstly, as to the altitude of the site.

This may be of great importance as a therapeutic agent, but so far, little or nothing is known of the effect of altitude on mental diseases.

In tropical countries it is the custom to send a neurasthenic to the hills. An improvement is soon apparent; the cool air, the lovely surroundings, and the withdrawal from his former routine life seem to invigorate the invalid. Later on, however, the novelty wears off and a relapse occurs. Yet the salutary though temporary influence in mild cases cannot be denied.

In more serious cases, however, the result is disappointing, even in the best hill-climate of Java, viz., Tosari. This is the experience of Dr. Kohlbrügge, the physician to the Sanatorium there.

Amongst the insane the powerful factor of suggestion is deficient, and consequently we do not expect to find the favourable results which have been noted as occurring temporarily in those suffering from neurasthenia.

In many conditions the tropical hill-climate is prejudicial owing to its bleak moisture. In the rainy season catarrhal dysentery is common, especially in the insane, owing to the difficulty of regulating their food and keeping them properly clothed and free from exposure.

Again, by selecting a site where the temperature is high, we have not to make any arrangements for heating our buildings, and ventilation is very simple. As the population of tropical lands is mainly an agricultural one, it is important to select a district where the land can be profitably cultivated without much assistance from skilled labour. We accordingly choose a locality suitable for coffee and cocoa. By doing so we shall provide useful occupation for our patients, and tend to make the asylum self-supporting.

My conclusion, therefore, would be to suggest a site not less than 500 feet and not more than 1500 feet above the sea level.

Secondly, the arrangement of the building (Fig. 1).

In the site I have suggested land is not valuable, and so one reason for having a building of two or more stories is removed.

The greatest difficulties in the construction of asylum buildings arise in connection with making provision for the specially troublesome inmates. In former times such patients resided in

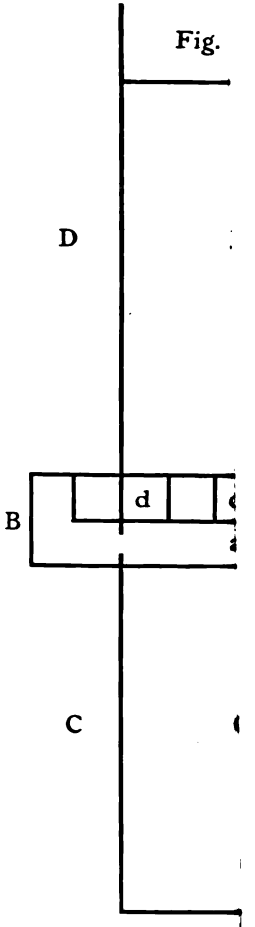
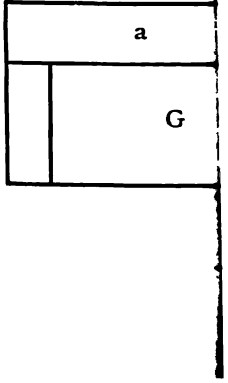


Fig. 2.



cells and single rooms; this arrangement was not satisfactory either from the point of treatment or of safety. The plan of treating certain classes of patients in bed in large rooms, designated observation rooms, in tropical asylums has proved a decided advance for both the patients and the attendants. Besides, as these apartments are under continuous observation, it is possible to construct them of very cheap materials and yet ensure security and proper hygienic conditions.

It is unnecessary to use brickwork for the walls. We may adopt a flat-beaten and twisted bamboo, called bilik here, which is very cheap and durable.

The pillars, wall-plates, tie-beams, king-posts, struts, principal rafters, purlins and ridge-pieces are to be made of teak, the common rafters of bamboo Frequent earthquakes make it desirable that the houses should be lightly constructed. The inside of the roof of these rooms, where patients remain during the day, must be specially lined to protect the inmates from extreme heat.

It will be advisable to treat the above materials with a silicate preparation in order to preserve them and to diminish the risk of fire.

The form of room best adapted for surveillance is the double rectangle (C_{II} D_{II}); this by a partition can be divided into two rooms. At one of the short ends are situated the bathrooms and latrines (*b. c.*); under these a canal (*e. e.*) runs. At the extreme ends are small rooms to be used either for attendants, or for the isolation of troublesome patients, or for stores.

The gallery (*a*), which runs alongside the observation room, is enlarged in several places (a^1) to serve as recreation rooms and dining-halls. I prefer the rectangular form, as it is possible for one attendant in the gallery to control the adjoining garden; and also when the patients in an observation room become calm the attendant there can exercise a surveillance of the garden. The general arrangement of an observation room, gallery, garden, and the requisite single rooms, etc., is shown in the annexed plan.

It will be seen that this arrangement can be repeated to any extent that may be required to meet an increase of the population. Thus, as in the plan, a considerable space is left at (A), and a hedgerow may be planted here if it is not

considered desirable for the inmates of one observation room to see into that of the adjoining block. Some single rooms are provided. These single rooms are placed at (B) (B^1) and are built of brick. Each is provided with a ceiling to prevent the transmission of sound, should the patient be noisy.

Patients allocated to the observation rooms must be at all times under surveillance, and in some of the blocks it is necessary, in order to prevent escapes, that the garden should be surrounded by a solid wall or by an iron fence.

Each observation room is supposed to accommodate twenty-eight to thirty-two patients. These patients should be so selected that only about two thirds should require continuous rest in bed, the remaining one third being under surveillance owing to a tendency to suicide, incendiarism, escape, dirty habits, epilepsy, or to impulsive or perverse acts. These latter would spend the day in the garden or the gallery. By adopting the above arrangement for each block or observation section certain advantages are ensured.

(1) We do not incur the very considerable expense of constructing connecting corridors.

(2) We avoid having sewage canals in the gardens, which canals have a great attraction for the natives.

(3) These blocks or observation-room sections, as I have before stated, can be repeated in accordance with the applications for admission.

For quiet patients, who during the day are not confined to gardens, one recommends pavilions or villas (Fig. 2), such as are common in Buitenzorg. These would of course be temporary structures. The dining-room, called pendoppo here, does not require walls, and the dormitory, being used at night only, does not require a ceiling.

Each dormitory would contain about twenty beds. I would suggest that the latrines be placed as in Fig. 2, so that they might be available during the night. Store rooms are situated at each end of the dormitory.

For those quiet patients who are also sick and infirm it is necessary to provide a ceiling for the dormitory. Cleanliness and brightness are ensured by pasting Chinese paper on the bamboo wall and painting it white.

The above-mentioned arrangements are intended for the

natives. Some modifications are required for Europeans, *e.g.* the bedrooms must have ceilings and the dining-rooms must have walls. The walls may be papered and painted or they may be plastered.

A considerable number of those patients who can afford to do so return to Europe for treatment. For those who remain, a pavilion with a private room for each patient is constructed. The floors of all buildings are made of cement.

The Insane Jew. An open letter to Dr. C. F. BEADLES, by Prof. M. BENEDIKT.

MY DEAR COLLEAGUE.—Your paper on "The Insane Jew" interested me greatly, for the consulting physicians of Vienna have many opportunities of observing the Jews, not only from Austria generally, but also from Russia, Roumania, and the other Balkan States, and specially because I have been occupied for a number of years in studying nervous diseases amongst these Jews.

It is a fact that the different forms of nervous degeneration (general paralysis, ataxia, etc.) and defective sexual power are extremely frequent among them, and that the graver forms of hysteria are met with in male and female Jews.

In my last work (1) I gave the appropriate formula for etiological researches. The function of every organ or organism, healthy or morbid, is dependent on the following factors. In the first place there are the innate qualities and predispositions ("anlage") of every organ or organism. In the second place there are the results of evolution, which depend on various circumstances and influences, and specially on the innate qualities.

Evolution has no power over these innate qualities, which are deeply rooted in the organism. In popular phraseology these qualities are called "second nature." In their effects they rank nearly as high as congenital qualities.

Consequent on irritation, there is a special reaction in accord-

ance with the congenital and evolutionary condition of the organism.

If we construct a formula on these principles and denote with N the congenital predisposition, with N^1 the "second nature," with E the other factors of evolution, with O the occasional irritation, and with L the result of reaction: we get $L = f(\pm N \pm N^1 \pm E \pm O)$.

It is evident that this formula is valid for psychological functions.

In pathology the totality of the factors N, N^1, and E was formerly called predisposition.

Has insanity amongst the Jews any reference to the individual being a Jew? And do the Jews of to-day represent a pure race?

Luschan's studies of skulls found in Asia Minor have proved that even in olden times the Jews were a mixed race. That is still more evident in the present day. We can distinguish at least three original races, *Semitic*, *Armenian*, and *Teutonic* (Amorites).

The last-mentioned intermixture is certainly rare, but can be recognised on living Jewish heads by the characteristic curve of the Teutonic occipital bone.

The first-mentioned, namely, the Semitic, seems to be principally represented by the so-called "Spaniols." These are the descendants of the Jews who migrated to Spain at the epoch of the first "dispersion," where they founded Toledo and other colonies. Exiled 2000 years later by Spanish fanaticism, they exist now principally in the Turkish and Balkan States, and in small numbers in other parts of Europe. This division of the Jewish race is, in my opinion, the Semitic part, because they have preserved more or less the type of the Semites as depicted on the old Egyptian monuments. They constituted an important factor in the progress of human culture in the middle ages, as they translated the Greek authors for the scholars of Europe. The ideas resulting were almost completely suppressed by the Church. They were transmitted from generation to generation principally by the medical profession, and without them the discoveries of Gallileo and Copernicus would have been deferred. This secret transmission did not escape the creator of the fable of Faust. The last Spaniol of modern importance was Spinoza. The Spaniols do

not represent a pure race, and since their isolation from the other branches of their nation they have become still more mixed with the dissimilar people who migrated with them.

It is a very interesting fact that, when the population of a country is dispersed, the different elements of its ancient lineage should separate by a kind of unconscious instinct.

We observe a similar phenomenon in times of great reforms and great revolutions. Parts of the same nation then separate themselves into different sections, each following their original lineage. The tribe of the priests, the Levites, have preserved their tribe traditions up to the present day. In the male line they have remained unmixed, although in the female line there has been intermixture. The Spaniol configuration is common to all the tribes, while the other tribes have also a configuration which is characteristic of them; yet all are assuredly Semitic in descent.

This transformation in the course of centuries depends not only on sexual admixture, but also on other factors of evolution which set their seal on the external configuration as well as on the organism itself.

The second type, viz. the Armenian, is perhaps physically best represented by the Afghans, who are of Israelite descent. The Persians and Armenians of to-day are parents of this section of the Jews. We cannot consider the Tartars, the Mountain Jews of the Caucasus, the Black Jews of Malabar, and the Hindoo Jews in this connection; and we cannot speak of a "Jewish race," but rather of a "Jewish nation." The word nation is not indeed quite applicable, and I shall therefore use the expression "Jewish people."

I shall now describe the characteristic qualities of the Jewish people; firstly, the mental and nervous qualities. No nation in ancient times was so fit to receive abstract ideas on Cosmogeny and the fundamental questions of metaphysics as the Jewish people were, fifteen centuries before Christ. Moses must have recognised this quality in his followers, for he made the bold experiment of imparting to them knowledge of the highest importance from Hamitic and Semitic philosophers, which kept up the mysteries associated with the priesthood. The second psychical quality which was necessary in order that a people might bear this burden was, that high

ethical predisposition to sacrifice their political, social, and economic interest to profound ideas and convictions.

Doubtless the masses to whom Moses entrusted that mission of culture were mainly of Semitic offspring. The intermixture, which took place at a later date, became in time imbued with the ideas and sentiments, and acquired the characteristics of the Jewish conquerors of Palestine. Thus the "nature" of the Jewish Semites became by-and-by the "second nature" of the others, and through long years of the same political, religious, social, and economic life became their "first nature." The same result is noticed in those who migrated to Paris and Vienna, etc. They became in time true Parisians and Viennese.

These prevalent characteristic qualities stamp the Jewish people as neurotic. In ancient days, when agricultural pursuits were common, contact with nature and hard work acted as a corrective. In times of exile, dispersion, and persecution the Jews lost touch for a time with mountain, field, and forest. They lacked sport, they were not refreshed by art, which was partly forbidden to them by their religion and customs; their pleasures were much restricted by religious prescriptions, and they were excluded from public feasts of rejoicing. Other nations could find an outlet for their passions and emotions in outward action; the Jews found an outlet for them usually at the expense of health, and so became more and more neurotic.

Interest was centred in the family. Consequently family feelings became more marked and stronger in them than in other nations. This often resulted in excessive sexual intercourse, *intra matrimonium*. The females chiefly suffered by these excesses, and even at the present day, among orthodox Jews, every female is condemned from maturity till the menopause to an uninterrupted series of pregnancies, parturitions, and lactations. No wonder, then, that *hysteria gravis* is so frequent among Jewish women, and that neurologists all over the world are interested in the number, intensity, and variety of cases seen amongst the Jews.

Severe cases of hysterical aphonia, in endemic form, are very frequent in Jews, male and female. Hysterical aphonia is almost characteristic of Jewish descent, and the severer

forms of convulsions and psychopathies are extremely common amongst females as well as males.

Though the inherent qualities of the Jews have persisted for many centuries, nevertheless they are endowed with a great aptitude for variation, both mentally and physically. I have met with variations, from a psychological standpoint, only in the great Russian population. The son or daughter of an illiterate peasant or rural pope, when educated, passes at one step with astonishing rapidity from bigotry and superstition to extreme modern views. With all the consequences of this change the Jew is also—if the expression may be used—extremely plastic.

When he has received a modern education he becomes completely imbued with the ideas and sentiments of his *Milieu*. He enters into its customs, and even shows that he is not lacking in an aptitude and taste for sport, and for the fine arts, which remained latent in his ancestors. His capability for abstract ideas remains, and his inclination to display an excess of feeling is apparent from the fact that he associates himself with the extreme Chauvinists of the nation whose opinions he has accepted. The Jews, therefore, are not a nation in the true sense of the word. The first condition necessary for a nation is a common language. Hebrew is not absolutely dead, but is not a popular language.

Wherever education is ruled by the State the Jewish population is educated in the language of the surrounding nation. One could speak of a "community" if the separate sections of the Jews had an intimate relation one with the other, but this is not the case. There exists only a superficial connection founded on ancient traditions, and from time to time by the misery consequent on persecution. We have now developed in general the factors N and N^1, the first and second nature of the etiological formula, and also the factor E. We come, then, to the conclusion that the Jews are a very intellectual and neurotic nation, and that therefore there must exist a great neuro-pathological predisposition. We have still to examine the factor O, *i.e.* the causes which bring about neuro-pathological states, and especially insanity and general paralysis.

At the present time syphilis and alcoholism are cited as the commonest causes of general paralysis. I have always held

that this theory was incorrect, and am astonished to find how scientific fashion can hypnotise reason and judgment in contemporaneous literature. I shall divide my patients into two classes, the first consisting of the better class of workmen and the poorer artisans of Vienna; the second composed, to a large extent, of Polish, Russian, and other orthodox Jews. In the first class syphilis is not frequent, and drunkenness is uncommon. Among the orthodox Jews syphilis and drunkenness are still rarer. In both classes the degenerative neuroses and general paralysis are not rare. From these facts I am convinced, *a priori*, that the modern etiological theory is erroneous. In my paper quoted above I have proved that it is erroneous to state that syphilis is the chief cause of ataxia and general paralysis, and I have drawn attention to the fact that irritations, which seem to give rise to nervous degeneration, have in general only an effect when they act on predisposed individuals. This theory is put in a nutshell thus—*Tabicus et paralyticus non fit sed nascitur*. I have restricted the meaning of this sentence in the necessary manner. That the Jews are much subject to neuropathological affections has already been demonstrated. What are the exciting causes of general paralysis among Jews? For a long time I have had the impression that general paralysis is increasing among them. The first cause of this is the ill-treatment and cruelty to which the Jews have been subjected, principally in Russia and Roumania, during recent years; and therefore you observe that amongst the Russian Jews in London general paralysis is nearly endemic. You will naturally ask why general paralysis was uncommon and had not become hereditary in times when the Jews were persecuted and exiled more cruelly and frequently than at the present day? In those days the slaughter of the persecuted and the infinite misery of the exile, which germinated famine and disease, saved the unfortunate from madness. This prevention from madness is to-day less effective. But there are other reasons for the increase of insanity, The standard of living changed very rapidly amongst the Jews. In former times they were very modest in their pretensions to the enjoyment of life. Their influence was not strong enough for them to become favoured members of society. They had no social ambitions, they bore ill-treatment with patience, and consoled themselves

by saying "We are in exile"! As European nations became more democratic, more disposed to be tolerant in religious, social, and political matters, the Jews fell more or less into "Liberty's lap." They became artists, graduates, learned men, engineeers, etc., but had and have still a harder struggle for existence than others. They quickly entered into the modern economic contest with all its fatal consequences as regards nervous integrity. The danger was greater for Jews, as they entered the new life with that tenacity which they had acquired in the epoch of misery, and with that temperament which is innate in them. In the females a curious ambition appeared. Formerly pampered neurotic individuals, they now began to aspire to a better social position; a great number became eccentric in their views and behaviour as regards family matters. Very many of them became, by reason of a superficial learning, actually perverse. All these exceptional circumstances resulted in an exceptionally high percentage of general paralysis in Jews of late years.

The official papers relating to insanity in Austria do not prove absolutely that there is an increase of insanity amongst the Jews. In Austria, and more especially among the Jews in Austria, there formerly existed a great antipathy to asylums. It is possible that this antipathy exhibited by the Jews was sooner conquered amongst them than amongst the rest of the population. Then the official figures, which indicated an increase, would be erroneous.

The statistics relating to the number and increase of the insane, outside asylums, are less instructive. Certainly many cases of insanity amongst the Jews are not reported to the authorities; this is indeed oftener the case amongst the Jews than amongst the rest of the population.

The Jews are well versed in the laws of heredity, and insanity is often concealed for worldly reasons, *e.g.* a profitable marriage.

Personal experience of medical men tells us, more plainly than official data, that the increase of insanity among the Jews is even greater and more alarming than appears from the official statistics.

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[1] "*Tabesfragen vom Standpunkte des Erfahrung und der Biomechanik.*"

The Muscular Sense. By JOHN REID, M.A., M.D. and C.M.

SOME writers lately have been inclined to drop this name, and although the matter has been investigated pretty fully, I do not think it has been much inquired into from the pathological point of view. The following notes will therefore probably not be uninteresting, and they may lead to the subject being more thoroughly investigated.

It is claimed for the muscular sense that the contraction of the muscle and force expended thereby are the elements essential to its existence. There are feelings of weight, of heavy bodies pressing on the head, on joints, etc., and all are estimated as weights of greater or less size, although no muscles exist at the parts where these so-called muscular feelings are located. There are diseased states of muscle, atrophy, etc., but along with these, although there may be rigidity, there is never a feeling of weight referred to the muscle. The only feeling is one of fatigue, or perhaps pain and tenderness; the feeling of weight is absent. When muscles are atrophied, weight may still be felt as pressure. When the muscles are diseased the feelings are of the nature of organic feelings, such as are found in parts under organic nerve-centres. If there is a small subcutaneous ulcer, painful, there may be a rigid muscle. This does not give the sensation of weight, but only of a rigid muscle. Were the muscular contraction a gauge of weight, we might be surely able at times to estimate the rigidity as weight. From whatever cause, so far as I am aware, the rigidity occurs, there is but one feeling belonging to the muscle—that of tension. The gut might feel tight when distended with wind. Trichinosis and rheumatism give stiff feelings in the muscles. How is it that there are no special feelings of weight in the special sense? Even among the insane and those who have done laborious work, there are no subjective feelings referred specially to muscles—so far as I know or have seen. The weights pressing on them of tons and such like are not referred to muscles. Yet the false touch sensations, the false aural, etc., are uniformly referred to their proper organs. Surely with

such a heterogeneous mass of diseased mental cases there should be some *muscle sense* ones described. I should not accept cases of suggestion, which all know to be easily manufactured; but the difficulty with regard to this sense is the absence of such subjective feelings referred to muscles. Cases of weight, of pressure, on bones, etc., are plentiful.

My difficulties in this subject are summed up as follows:

(1) Feelings of weight are not referred specially to muscle.

(2) Muscles diseased, inflamed, etc., never furnish instances of *muscular sense* proper.

(3) Muscles rendered tense by electric shock, by irritants on skin, never give but organic feelings of tension or fatigue.

(4) The absence of the so-called muscular sense feelings among insane hallucinations referred to muscles.

Many of the above points have already been touched on, but I trust that this short notice will lead to exhaustive inquiry.

Punishment. By C. A. Mercier, M.B.

This is the third or fourth time that I have been the occasion of bringing the subject of Punishment before your notice, and my justification for treating of it again is that I am given to understand you are not yet—all of you—of my opinion. On the first occasion I had but one adherent, but that one, Sir William Gairdner, was in himself a host. On the last occasion a good many voices were raised in my favour, and to-day I hope we shall be unanimous. You will remember that the first time I brought the subject forward, it was in connection with the thesis that every lunatic is not necessarily to be considered exempt from punishment; that most lunatics ought properly to be punished for some of their wrong-doings; and that the practice in every asylum is to punish lunatics upon occasion. To this it was objected that although the fact was admitted that we do pursue towards lunatics the same course of conduct that is called punishment when applied to sane people, yet, when applied to lunatics, it is not punishment, because we dare not call it punishment. This led me

to a disquisition upon the nature of punishment, in which I arrived at the conclusion that punishment is the painful consequence of conduct; and to this conclusion I still adhere, but subsequent meditation has shown me that although it is the truth, it is not the whole truth, but that there is another aspect of punishment of equal importance. Moreover, I think that the chief reason of the disagreement between my critics and myself was that, while I looked at one side of the shield and maintained that it was black, which it was, they were looking at the other side and maintained that it was white, which it may have been—in parts. In other words, I was looking upon punishment from the point of view of the punishee, which some of you, at any rate Dr. Noott, will consider was the proper point of view for me to take; while others regarded it from the point of view of the punisher.

Now, whatever differences may hereafter disclose themselves between you and me, we shall probably be at one up to this point. We shall admit that to the punishee punishment has a very different appearance from that which it has to the punisher.

From the point of view of the punishee I maintain that my original thesis was correct. Whatever pain is brought upon a man by his own conduct, of whatever description, in whatever department of activity, is, for him, punishment, and in this sense the punishment is a warning that, if he persists in that course of conduct, he will perish. If I strike my fist against a brick wall I suffer pain, and the pain is my punishment for acting in a way that is inappropriate to the circumstances, and is a warning that, if I continue that course of conduct, I shall perish. If I go on knocking my fist against the wall I shall get first inflammation and then gangrene in my hand, and of this I shall die, unless I alter my conduct. So if I get my feet wet and sit in my wet boots, I get a cold, and the inconvenience and discomfort of the cold is my punishment for pursuing that course of conduct, and is a warning that, if I persist in it, I shall perish. I shall get cold upon cold, and finally, inflammation of the lungs; and of this I shall die if I don't alter my conduct. So if I assault or rob my neighbour I shall be sent to prison, and there, if I continue this course of conduct, I shall be flogged and otherwise punished until I die; and whether I die from gangrene of the hand, or from inflamma-

tion of the lungs, or from suspension by the neck, or from the hardships of prison life, the end is the same; and from the point of view of the punishee, punishment is a warning that he must change his course of conduct or perish.

It has been maintained from the time of Beccaria and of Bentham that punishment is effectual, that is to say, deterrent, in proportion as it is certain and as it is prompt; but this is not the true statement of the deterrent element in punishment. The true statement is that punishment is deterrent in proportion to its known inevitableness, or, to put it otherwise, in proportion to the cohesion or closeness of association, in the mind of the punishee, between the conduct and the pain which is its consequence. It is possible for punishment to be both prompt and certain, and yet to have no deterrent effect whatever. It is possible for punishment to be neither prompt nor certain, nay, to be non-existent, and yet to be very efficiently deterrent. A man goes to the Campagna at Rome, or to the West Coast of Africa, and allows himself to be bitten by mosquitoes, and in a few hours he is prostrated by malarial fever. The punishment follows promptly, and it follows with inevitable certainty; but, in spite of this, it has no deterrent effect, because there is no perceptible link, no connexion in the mind, between the conduct and its result. On the other hand, we see daily that if a man, especially a woman, is firmly convinced that conduct will have a painful result, that conviction will be sufficient to deter from that course of conduct, even though in fact no ill-consequence has ever followed upon such conduct. How many people are there who would not rather submit to certain inconvenience than sit down thirteen to dinner, or walk under a ladder, or wear an opal, or begin a journey on Friday, or keep peacocks' feathers in the house. No ill-consequence has, in experience, consistently followed any of these practices, and it is not the punishment that they incur which deters from them; it is the firm conviction, the cohesion in the mind between the conduct and its painful effect, that is the efficient deterrent. So far as the promptitude and certainty of punishment are deterrent —and I am far from denying that they do deter—they deter only indirectly by establishing in the mind of the punishee a firm connection between the conduct and the punishment that it entails.

Now let us change the point of view, and regard punishment, not as it impresses the punishee, but as it is regarded by the punisher. My contention is that from the point of view of the punisher, punishment is primarily and essentially retaliatory. It is self-protective. It is a fundamental duty which every individual owes to himself, a duty the neglect of which is fatal. Punishment from this point of view is retaliation upon aggression, and if we allow aggression to pass without retaliation we must perish in the end. It is contended by Lord Justice Fry that the fitness of punishment in sequence to transgression is a fundamental fact of human nature, a moral element incapable of further analysis; but I think that it is possible to reduce it to simpler terms. "Why," says Lord Justice Fry, "do we strive to associate pain with sin? The judge who pronounces sentence on the criminal tries to do this. The parent who punishes his child for a lie strives to do this. In our whole talk about the inequality or the fitness of punishments, we assume some relation between the two things. Why do men complain of the sufferings of the good and of the prosperity of the wicked—why do they esteem it one of the hardest riddles of the universe—but that they assume that, in a right state of things, pain ought to go with sin and happiness with righteousness? Why, but for this, should not hell appear the proper home of the righteous and heaven of the wicked? Is not this the foundation of Job's loud wail, and of the echo which it has found through long centuries of men? Here we seem to be near a fundamental fact of human nature, a moral element incapable of further analysis (so far at least as my chemistry goes)—the fact that there is a fitness of suffering to sin, that the two things, injustice and pain, which are both contrary to our nature, ought to go together, and that in consequence we naturally desire to bring about an association of the two where it does not already exist.

"Whence do we derive this principle? Not from the outer world; for, as we have seen, the world responds to it only imperfectly, and by reason of its very imperfection drives us to efforts to realise by punishment that association which otherwise would not exist in fact. Punishment, in short, is an effort of man to find a more exact relation between sin and suffering than the world affords us."

The whole gist of this argument rests upon the meaning

that we attach to the words sin, injustice, transgression, wrong, and wickedness, which are used in the course of it. Taking them to be, as used here, convertible terms, then I elucidate them in this way. The verb to sin is essentially not an intransitive verb as it appears to be, but a transitive verb. There can be no sin without a person sinned against. We may sin against other men or we may sin against God, but in any case there must be another party to the transaction; there must be an object sinned against; and whatever the nature or precise character of the sin, it must be of necessity injurious. An act done with the object and intention of benefiting or complimenting another may be injudicious, may have various questionable qualities, but it cannot under any circumstances be a sin against that other. It is neither a sin, nor a wrong, nor a fault, nor a transgression against him, nor is it punishable by him. The only acts which are wrong or which are punishable are those which are injurious.

Now, it is a fundamental necessity for every organism that it must protect itself against injury or it must perish. Self preservation has been called the first law of nature, and although this statement is in my opinion erroneous, yet it may fairly be called the second obligation which lies upon every organism. Every organism must protect itself, on pain of death if it neglects the obligation. When we are threatened with injury, we are bound and obliged to take measures to prevent what is threatened. When we are actually in process of being injured we are bound and obliged to repel the injury, and more than this, we must, if we are to be safe, put the assailant into such a position that he cannot repeat his attack. If a man is after me with a revolver, it is not enough for me to dodge the bullets; I shall not be safe until I have deprived him of his weapon. So that it is clear that if retaliation upon injury is to be efficient, is to be preventive, some part of it must be subsequent in time to the actual injury. And then retaliation becomes punishment. From the point of view of the punisher, therefore, punishment is preventive retaliation. It is manifest that efficiency of retaliation upon injury has been, throughout the secular struggle for existence, a very powerful factor in securing the survival of the retaliator; and as all beneficial action will, if continued long enough, become fixed and embodied in an instinct, so has retaliatory action

been thus embodied, and thus has been originated and preserved the habit of the pursuit of punishment, or what is called vengeance, that is to say, of pursuing retaliation after the cessation of the injury.

But man is a social animal. As a member of a community he witnesses attack and retaliation made by others, *inter se*, within the bounds of his particular grex. As a spectator, an indifferent spectator, of attack and retaliation carried on between other people, he very soon learns to apportion the gravity or severity of the one to that of the other, and I venture to differ from Lord Justice Fry's supposition, that this apportionment of equality between the two is inexplicable and is a fundamental fact of human nature. A retaliation which is greatly in excess of the primary object of retaliation, viz.: self-defence, loses its retaliatory character and becomes an original aggression, justifying a counter-retaliation. Now, it needs much less keenness of the self-preservative instinct than most primitive men possess, to recognise that an internecine warfare within the limits of the community lays the community open to defeat from without; and to guard against so obvious a disadvantage in the struggle between communities, an instinct very early becomes developed, which leads him to abhor such excess of retaliation and to strive to prevent it. To this instinct or sentiment or emotion is given the name of justice; and the sense of justice may thus be shown to have a basis as strictly utilitarian as the instinct of self-preservation to which it is contributory. I do not say that it is the whole and sole foundation of the sentiment, but it is certainly the lowest and broadest stratum of its foundation. Gradually experience teaches that no man can be trusted to keep within the bounds of proper and justifiable retaliation; that no man can be an impartial judge in his own cause; and hence, to put a stop to the constant public danger of private vendetta, the right of retaliation is by slow degrees taken out of the hands of the individual and vested in a central authority representing the whole community.

It is often assumed that the establishment of courts of justice and the suppression of direct retaliation by the injured party is owing to and is a recognition of the fact that by a crime not only is the individual injured, but that the community also is injured, and with this I should agree; but the nature of the injury

suffered by the community is variously stated to be either a kind of *lèse majesté*, or a general sense of insecurity that is diffused by the crime. I do not think that either of these is the primitive view. They seem to be too elaborate and refined to enter into the consideration of primitive people. They bear the stamp of an *ex post facto* explanation invented to fit the facts rather than growing naturally out of them. It seems obvious that long before the power of abstract thinking had so far developed as to allow of a community being conceived as a body corporate, susceptible of being injured by theft or violence committed by one of its members upon another, the primitive man could achieve the conception "while we are fighting among ourselves, we shall fall an easy prey to the Philistines, the Amalekites, the Perizzites, the Hivites, or the Hittites." This, it seems to me, is the origin of punishment inflicted by the State. It is a purely retaliatory act, undertaken by the community because it was found unsafe in practice to leave it in the hands of private individuals.

In any case, whether this be so or not, the origin of punishment is in the prolongation and completion of an act of self-defence. The effort of an injured person is to repel the injury then being inflicted, and where the injury may be renewed the moment retaliation ceases, it is evident that the retaliation must be pushed and must be prolonged. It then becomes punishment in the ordinary sense of the word. As soon as intelligence and foresight become sufficiently developed in the injured party, the object of retaliation becomes not merely the repulsion of an existing attack, but the prevention of similar attacks in future. Almost as soon as it comes into existence arises the intention to make it not merely defensive but deterrent; and in this latter day the immediate defence is swallowed up and lost sight of in the future prevention, and punishment is now regarded as deterrent only.

Thus I think that that indestructible association in our minds between pain and sin which Sir Edward Fry speaks of, can be accounted for by the principle of natural selection. It is the necessary association between attack and defence; it arises from the fundamental necessity for self-conservation. And our explanation goes further, and shows why, in the words of Sir Edward Fry, "the principle is true not only absolutely, but *secundum majus et minus*, and that we feel that great

suffering is fitting to great sin, and small suffering to small sin." For if the attack is violent, the defence, to be effectual, must also be violent ; while, if the punishment is severe out of proportion to the offence, then it will provoke a counter attack, with the danger to the community which a vendetta involves. It is a remarkable fact that this balance of proportion between the magnitude of the offence and the severity of the punishment is as clearly recognised by dogs as by men. If a dog has stolen, or destroyed, or violated any other canon of canine ethics, he will submit without a murmur to the consequent thrashing, so long as the punishment is, in his view, proportionate to the offence. But if it becomes, in his view, excessive, his outcries and expostulations leave no doubt in the mind of the observer as to the keen sense of justice that he possesses.

The deterrent effect of punishment is looked upon by Sir Edward Fry as a secondary object or motive for its infliction, but, in my view, it is not secondary but primary. The object of instant retaliation is to neutralise an actual attack then in being, and the object of the prolonged or delayed retaliation that we call punishment is to prevent future attacks. Now, to be efficient in deterring, punishment must have those qualities which are efficient in binding together in the mind of the punishee that sequence of pain upon transgression of which Sir Edward Fry speaks. Of these qualities the promptitude and certainty with which the punishment follows the offence are two, and are very important, but, as we have already seen, they are not the only ones. What is more important is that the punishment should seem to be a natural and inevitable consequence of the conduct which brings it about. No punishments are so deterrent as those which are inflicted by inanimate things. If I hit my fist against a tree I am punished by a pain, which is not only instant and certain, which is not only proportioned to the violence which I have used, but which is inseparably bound up in my mind with the act on which it ensues. These, then, are the characters that we should seek to give to the punishments that we inflict. They should, first of all, be prompt. They should follow as speedily as possible upon the crime. Second, they should be certain ; there should be in their incidence a fateful inevitableness against which no defence or evasion should prevail. Third, they should be severe in proportion to the gravity of the offence. All this is

generally admitted, but this is not all. Punishment, to be thoroughly effectual, ought to have another quality which is not usually given to it. It ought, as far as possible, to appear to be the natural and inevitable result of the conduct to which it is applied. It should bear upon it the stamp, not of caprice, not of accident, not of haphazard, not of human invention, but of inexorable fate. It should seem to follow on the offence, from no vindictive feeling in the mind of man, but from the undeviating action of natural laws.

This has been put very clearly by Herbert Spencer in the case of the punishment of children. The passage is too long to quote, but I may paraphase it thus. A child leaves its toys scattered about the floor, or a little girl making doll's clothes disfigures the room with shreds, or a handful of flowers is left dispersed over tables and chairs. For such misdoings the usual punishment is a scolding from the nurse while she is picking up the things. The proper punishment is to make the child itself clear up the mess that it has made. The labour of putting things in order is the true consequence of having put them in disorder. Every trader in his office, every wife in her household, has daily experience of this fact. A little girl is never ready in time for her walk; the governess and the other children have invariably to wait, and from the mother there comes invariably the same scolding. In the world, unreadiness entails the loss of some advantage that would else have been gained; the train is gone; or the steamboat is just leaving its moorings; or the best things in the market are sold; or all the good seats in the concert room are filled. The inference is obvious: if the child is not ready at the appointed time she should be left behind and lose her walk. Take the case of a boy who is habitually reckless of his clothes—scrambles through hedges without caution, or is utterly regardless of mud. If he is beaten or sent to bed he is apt to consider himself ill-used; but suppose he is required to rectify as far as possible the harm that he has done—to clean off the mud with which he has covered himself, or to mend the tear as well as he can. Will he not feel that the evil is one of his own producing? Will he not, while paying this penalty, be continuously conscious of the connection between it and its cause? Will he not, in spite of his irritation, recognise more or less clearly the justice of the arrangement? If several

lessons of this kind fail to produce amendment, and if there occur occasions on which, having no decent clothes to go in, the boy is debarred from joining the rest of the family on holiday excursions, it is manifest that while he will feel keenly the punishment, he can scarcely fail to trace the chain of causation and to feel that his own carelessness is the origin of it all.

Compare this system with the system by which our criminals are punished. Whatever the nature of the crime, the punishment is the same; and whatever the nature of the crime, the punishment is ingeniously devised so as to have no natural connection with it whatever. The man who habitually beats his wife, the man who strikes her in a fit of passion, the shop boy who takes money from his master's till, the vagrant who sleeps under a haystack, the jealous lover who shoots his mistress, the fraudulent trustee who converts trust funds to his own use, the solicitor who contumaciously clings to a document, the wife who poisons her husband, the cabby who gets drunk in his day's work, are all punished in precisely the same way, by precisely the same means, to precisely the same extent, save only in the duration of the punishment. Could anything be more unintelligent? It is the treatment of Dr. Sangrado applied to crime. And not the least of its defects is that it deprives the judge of the exercise of his ingenuity in devising a punishment that would fit the crime. Why should not the thief be compelled to make restitution? Why should not the wife-beater be flogged? Why should not the homicide be compelled to work in slavery to support the family of his victim?

But it will be objected, what has this to do with insanity, and with the punishment of insane people? It has this to do with them—that, so long as the mind of the lunatic is clear enough to be capable of forming a true and intimate connection between the wrong doing and the punishment which follows it, so long we are justified in inflicting upon him some punishment. I do not say, and I have never said—I have always protested against the position—that lunatics should be treated in the same way and punished with the same severity as sane people; but I still maintain, as I have always maintained, that of the conduct of most lunatics part is sane and part is insane; and that while they may not properly be

punished for the insane part of their conduct, they may properly be punished, though with mitigated severity, for wrong doing which belongs to the sane part of their conduct.

Discussion

At the General Meeting of the Medico-Psychological Association, 23rd May, 1901.

The President.—Dr. Mercier has explained to us, in that very lucid manner which you all know is characteristic of him, his attitude on this subject. We have here to-day several distinguished members of other professions who are specially interested in the subject of punishment. We, as medical men, welcome them, and I have much pleasure in inviting them to take part in the discussion.

Mr. Montague Crackanthorpe, K.C.—When I came into this room I had not the slightest notion what part of the subject named on the card Dr. Mercier intended to deal with, and I confess that to be called upon suddenly to make some observations on his very able and very interesting paper is, even to a veteran lawyer like myself, a little disconcerting. Dr. Mercier, whose argument was not the less cogent because it was concise, began by maintaining that punishment was, in its origin, retaliatory or vindictive, and that it remained so still. I agree with him on the first point; I venture to differ from him on the second. There are many conceptions and institutions now in vogue which are very different from what they were in their origin. Of such, punishment is, in my opinion, one. Dr. Mercier has quoted my friend Sir Edward Fry as an authority for the dictum that criminal punishment is "suffering following upon sin." With the greatest respect both to Sir Edward and Dr. Mercier, I regard this dictum as of no value from the juridical point of view; and even from a moral standpoint I doubt its propriety, for are we not told in the Scripture, "Vengeance is mine, I will repay, saith the Lord"? In this metropolis there is a great deal of unpunished and unpunishable sin. If the law were to deal with sin, as such, the criminal courts would be always open, and as for the unfortunate judges, they would never get a holiday. They have enough to do in dealing with those offences against society which are defined as criminal, and to mix up sin and crime is, to my mind, to obscure the issue.

The next observation I should wish to make is as to the object and end of punishment. I hold that its main object is a double one: (1) to deter others from doing likewise, (2) to restrain the original offender from repeating his offence while his sentence lasts. Its secondary object, which Dr. Mercier did not, I think, mention, is, in my view, to endeavour to reform the criminal. This I regard as a State duty. If the State shuts up a man in gaol for a number of months or years, it should take care not to turn him loose at the end of that time a worse or more helpless man than he was before he was convicted. Many in this room will probably agree that the effect of a long incarceration is to destroy rather than to strengthen the power of will and self-control, because the conditions of prison life are wholly artificial and differ from those of the outside world. Hence it is well to allow a man a certain amount of liberty at the end of his sentence that he may know how to order his own life and be able to grapple with the difficulties he will have to encounter when he becomes a free man. Our present prison system for adults, in which there is no halfway-house resembling that of our juvenile reformatories, leaves much to be desired in this respect.

With regard to the measure of punishment, it would be a great mistake (to use a hackneyed phrase) to try to "fit the punishment to the crime" without reference to the individual offender. This is what we formerly did in England and what the Code Napoléon would be doing at the present day in France but for the introduction of "extenuating circumstances" which it is competent for the jury to find. Prisoners guilty of the same crime may be of very different kinds and may require very different treatment. All of them may be roughly classed under four heads:—(1) There are those who, in the opinion of experts like yourselves, are totally incapable of distinguishing right from wrong, and who are properly detained "until the pleasure of the Crown shall be made known." These are the insane. (2) There are those who have committed a single crime from passion—*un crime passionnel*,

as the French say—which they are never likely to repeat, but for which they must be punished by way of warning and example; (3) There are the habitual offenders, the men who steal again and again, or who give way again and again to drink which leads them into other criminal courses, and whose brain is below par, either from hereditary causes or by reason of their own acts of self-indulgence. For these a prison-asylum would be a more fitting place than a gaol as at present conducted. (4) There is the professional criminal, the man who has several times been previously convicted, and who deliberately pursues the career of preying upon society for his own private ends. This class of person should (and here I agree with Dr. Anderson's recent article) be sequestrated for a considerable period, if not for life, but he, too, should, after a time, be allowed a certain amount of freedom. The element of hope should never be wholly shut out, but he should only be liberated, if at all, when the prison authorities have become satisfied that this may be done with reasonable safety to the community. In this respect he should be placed on the same footing as the inmate of a lunatic asylum who, after long confinement, is discharged as of sound mind. The "indeterminate sentence" resorted to in some of the states of America has not been without good results.

One other point with regard to the measure of punishment occurs to me. Some persons hold that an educated man who betrays a trust should be punished with a a much longer sentence than a common thief who has frequently been convicted of larceny. This at first sight seems reasonable, but I am not sure that it may not sometimes work injustice. The educated man, who has lost the whole of his worldly prospects by reason of his misconduct, has been already punished severely, and it may be unfair to put him on the same level as the professional pickpocket, burglar, or blackmailer who has lost practically nothing, and to whom, in some cases, a prison affords as many material comforts as did the surroundings from which he has been forcibly removed. This matter has not, so far as I am aware, been considered by our judges in conclave. Would it not be well that they should come to some agreement about it, with the view of making their sentences more uniform?

Before sitting down let me again refer for a moment to the test of criminal responsibility known as the rule in MacNaughten's case. It was there laid down, in effect, that the crucial question for the jury is, Did the accused, at the time he committed the act charged, know that he was offending against morals? This test has been conclusively shown by Sir Fitzjames Stephen to be unsatisfactory. And so it is. Whether a jealous husband shoots down his wife's lover in order to vindicate his own honour, as sometimes happens in France, or a burglar stabs a policeman in order to prevent being arrested, as sometimes happens in England, each is, at the time of the act, incapable of distinguishing right from wrong. In the first case, the thirst for revenge; in the second, the desire for liberty, completely deadens all moral sense. If the test of momentary responsibility was applied without discrimination, a large percentage of sane persons must either be acquitted of crime or sent to Broadmoor. Here then, too, there is room for improvement of the law, and it would be for the benefit of the community if the rule in MacNaughten's case were authoritatively re-stated in clearer and more precise terms.

Dr. SAVAGE.—Mr. Chairman and Gentlemen, I think there is a misunderstanding in something said by the last speaker. I certainly did not understand Dr. Mercier to say that the essence of punishment is retribution or revenge, but rather that in the evolution of legal punishment this was the starting-point, the original idea, but that now this had been subordinated to the deterring influences of education. Similar evolutions have taken place both in Medicine and Law. I remember nearly forty years ago, when our best medical teachers were beginning to impress upon us the fact that it was not the function of Medicine to treat disease, but that we had to treat the diseased person. That we had not fever to treat, but a fevered man, and so I recognise the importance of what the last speaker said when he spoke of the real question of treating not crime by repression, but the criminal by training and reforming where possible. It would certainly be very satisfactory if one could make the criminal in some way restore to the injured what had been lost or destroyed, but the old Mosaic idea of an eye for an eye, a tooth for a tooth, is no longer to be considered as practical. I have nothing to say in relationship to the question of sin—that does not at present

concern us, either as lawyers or doctors; but from my personal experience I may be expected to speak of the connection between insanity and punishment. I have no doubt that the mere bringing the two terms together will offend many, for the insane are taken to be irresponsible, and therefore beyond the question of punishment. It is all very well to say that the insane are all to be treated as irresponsible; I should not go this length without a clear definition of insanity; for I feel that there are many persons who are of unsound mind, and yet who are not to be treated as legally insane. One of my chief difficulties in practice is to distinguish clearly those who, being of unsound mind, are legally insane. I have to decide which are so far alien as to require removal from social life, and such as, though of unsound mind, may be guided, directed, influenced, and, perhaps, Dr. Mercier would say, punished for their own good and for the benefit of society. I have developed in my ideas, and I feel more in harmony with many of my legal friends now than I formerly did. I recognise the justness of the French "mitigated responsibility," and if we admit the limited responsibility we must allow limited power of receiving correction. The much-abused British jury, after all in most cases, judges fairly enough as to the limited responsibility. I have often thought verdicts wrong, but this does not prevent me from seeing that as Society is constituted the jury system works fairly well. To sum up I cannot admit any necessary exclusion of all persons suffering from some degree of mental unsoundness from all the legal consequences of their acts.

Sir Herbert Stephen.—I am glad to find myself in agreement with a good deal of what Dr. Mercier said in his paper. I agree with what I take to be his practical conclusion, namely, that some lunatics ought to be, and probably must be, punished when they do wrong, by those who have the control of them. I also agree that, historically speaking, the infliction of punishment by human beings upon each other was probably founded upon what has been called retaliation, but may perhaps as well be called revenge as anything else. That is to say, the principal sentiment in the minds of the persons who first inflicted punishment probably was, "You have hurt me, and I am going to hurt you." So far I agree, but I go much further. I think that this sentiment of revenge, or retaliation, is still, and will continue to be, the principal ground upon which punishment is based. I differ from those who hold that the idea of revenge in this connection is an archaic barbarism, that it has passed away from the minds of benevolent legislators and administrators of law, and that all that has to be considered in the proper infliction of punishment is, (1) an endeavour to reform or improve the character of the offender, and (2) what has been called its "deterrent" effect upon other persons likely to offend in the same manner. Let us test this opinion by reference to an actual case, and consider how it would work if judges were actually to take into their consideration nothing but the improvement of the guilty person's conduct, and the desirability of preventing other people from behaving in the same way. Consider such a case as that of Jabez Balfour, which I specify only because its general features are probably within the recollection of every one present. Jabez Balfour was convicted of a number of frauds by committing which he deprived a great many people, some of them very poor, of all they had. For these crimes he was sentenced to a long term of penal servitude. What would have been the position of the judge who had to pass sentence upon him if he had not been allowed to give effect to any feelings except the wish to improve Balfour's character, and the wish to deter him and others from committing similar offences in future? He would probably have addressed him somewhat in this fashion:—You have been found guilty of extremely grave crimes, and in the ordinary sense of the words you may be considered to deserve severe punishment. But that is in itself no reason for sending you to penal servitude. I am not here to gratify any feelings of animosity, or to make you suffer because others have suffered through you. I have to consider, first, what course of treatment will have the most effect in reforming your character, and making you a useful citizen; and secondly, how I may best prevent you, and similarly evil-minded persons, from perpetrating similar frauds in future. First as to your character. It is manifest that at your age, and after the life you have lived, no punishment that I could inflict would have any effect upon that. It is impossible to suppose that, going into prison as bad a man as you are, you would come out any better. From that point of view, therefore, no punishment would

be of any use. Next as to "deterring" you from doing the same things again. In your particular case, sending you to prison would have no such effect. You are not like the professional housebreaker, whose habits are so deeply ingrained that the only way to protect the public from his depredations is to lock him up. He will break into people's houses whenever he is at large, and it may be sometimes necessary to imprison him for a long period on his conviction of an offence trivial in itself. You, on the other hand, are rendered harmless by the mere fact of your conviction and disgrace. All your offences were founded upon the misplaced confidence of rash people, in your supposed intelligence and probity. Your name and character are now universally known, and nobody would be foolish enough to subscribe a shilling to a company of which you were known to be a promoter, nor would any sane person associate himself with you in any such enterprise. The only remaining reason that there could be for subjecting you to punishment would be that other wicked people might be afraid of following your example. The experience of mankind teaches that the fact that disgrace such as yours may culminatie in imprisonment, probably has no such "deterrent" effect. Persons who steal on the enormous scale that you do are essentially gamblers. They always hope that things will go well, and that they will realise huge fortunes, and be able to meet all their obligations. They know from the beginning that if they fail they will be utterly ruined and lose all their property, their seats in Parliament, their social consideration, and so forth. That is the penalty which they dread and seek to avoid, and if that risk does not "deter" them from embarking on a course of crime, they will certainly not be "deterred" by the added risk of being sent to prison when they have failed and their offences are discovered. I should therefore serve no useful or humane purpose by sending you to prison, and my order is that you must be bound over in your own recognisance to come up for judgment when called upon.—Can any one suggest that such behaviour on the part of the judge would have been anything but a flagrant and inconceivable dereliction of duty? Take again what has been described as the *crime passionel*—the case of a man who finds himself betrayed or disappointed in the master passion of his life, who watches for his successful rival, and kills him deliberately and with forethought. Such cases are not very common, but they occur now and then, and if you are not angry with such a man for committing murder, why in the world do you want to punish him? It is futile to suggest that his character is likely to be effectively reformed by punishment. The probability is that he was a perfectly respectable and well-conducted person before the crime, but he was one of the few people who, once or twice at most in a lifetime, become so entirely engrossed in a personal affection, that for the moment no other considerations have any effect upon their minds in comparison, and that will continue to be his nature however much, or however little, you punish him. And as for deterring others, when a crime of this kind is committed the offender is, *ex hypothesi*, perfectly willing to take his chance of any kind of punishment in order to gratify the passion which wholly engrosses him.

In reference to the general question of the reformatory effects of punishment upon the characters of adults, I was once making inquiries of a well-known prison official, who was at that time deputy governor of a prison with an average population of about one thousand convicted persons, and I asked him what proportion of that number were, in his opinion, persons with regard to whom there was any hope whatever of improving their characters or doing them any good. He answered, after consideration, "Perhaps four." I do not of course suggest that anything like this is true of what are called "juvenile offenders," but my own belief is that, among criminals twenty years of age and upwards, the hope of making any considerable number of them honest and respectable is chimerical.

In one point I must express total disagreement with Dr. Mercier, and that is in his wish for the introduction of what I may call fancy punishments, of the kind suggested by Bentham. Penal establishments can be conducted only by rule, on lines ascertained beforehand, and life is not long enough for the invention and execution of penalties supposed in each case to have some specific appropriateness to the circumstances of the offence.

It gave me great pleasure to gather from one or two speakers confirmation of an opinion I have lately formed—that we have got pretty well to the end of the

old quarrel between you doctors and us lawyers as to the effects of insanity upon legal criminal responsibility. I cannot see that there ought to be any quarrel at all. Whether a man is mad is a medical question, upon which we want your advice. Whether he is legally responsible is a legal question, upon which you are interested only in so far as you may be lawyers. The law is, and I believe you will agree that it ought to be, that some men are mad in such a manner as not to be legally responsible, and others are legally responsible although they are mad. The tests actually accepted for distinguishing, in criminal cases, between these two classes are, in my opinion, susceptible of some slight improvement, but the more I see of them the more I am inclined to think that they supply a good working rule, which juries can and do apply with results that are satisfactory in the main. I have noticed of late years that medical witnesses on the Northern Circuit, especially at Liverpool and Manchester, seem to understand perfectly what is and what is not required of them, and to give their willing assistance in the application of the established legal principles to the facts of particular cases.

In conclusion, I wish to reiterate my opinion that the true and ultimate basis of all human punishment is retribution, or retaliation, or revenge, or whatever you like to call it, and that it will continue practically to be so whatever any of us may be able to persuade ourselves, or each other, to the contrary.

Rev. R. D. Swallow.—The subject under discussion is one in which I take a good deal of interest, but I have no right to intrude upon you this afternoon. I have no acquaintance with criminal law or with mental diseases, but at the same time there are two or three points on which I may venture to ask for information, and shall be very grateful if some of my medical hearers in particular will satisfy me upon them. I think everyone who knows anything about the training of the young is conscious that at the present time there is a growing reluctance to submit them to punishment at all. I frequently as headmaster of a school, where I have been for some twenty-five years, find parents coming to me asking me to abstain from punishing the children. Children over and over again are neglected in their homes in respect of punishment, and parents are constantly desiring the same sort of neglect on the part of the schoolmaster. Of course, we have outlived what I must call "the good old days" of Mr. Wackford Squeers. I feel perfectly convinced from experience that in almost every schoolboy there is a strain of the "offending Adam," which ought to be whipped out of him, and I shall make earnest appeal to the doctors to support the schoolmasters in this respect, and not to comply with the wishes of parents, who like to be told that their children are unable to bear punishment. I say the mother is chiefly to blame, but ultimately the fault must come back on the father, because I will mention what bears more or less upon the subject, and that is that in my boyhood it used to be the custom for the father to interview the headmaster, and for the father to deal with the boy at school, but it is the mother who does nearly everything now, and this really has a very serious effect upon the discipline of school life. Now we are hearing a great deal of Hooligans among the working-class population, and I regard with very great apprehension the growing Hooliganism in the middle classes. Up to this time I am glad to say that boys of the higher middle class are more or less free from a taint which developed into the "Mohawks" of the eighteenth century, for the English boy who is well born and bred does submit to punishment, but in the lower middle classes, especially in those large classes of boys who are being drafted in greater numbers every year from our Board Schools, punishment is a very difficult thing. Boys of that class, as a rule, cannot submit to punishment as boys of a higher class do, and it is perfectly impossible to imagine that all punishment in schools should be made as absolutely suitable for the character of the offence as Mr. Herbert Spencer would have us believe.

The opener of this discussion quoted Mr. Spencer as suggesting that to leave children out of the "family walk" would be a suitable punishment for such as were not ready for it at the hour fixed. I have known children who would have been guilty of the unpunctuality for the sake of earning the punishment. In my own well-disciplined society the outlawry of an unpunctual boy from first lesson would hardly tend to promote punctuality.

The difficulty of the position which I have indicated is accentuated by the

neurotic tendency of the rising generation. The schoolmaster may well appeal to the doctor to assist him in the disciplinary side of his work by strenuous effort to control this disposition, which is surely mischievous for the moral as well as for the physical fibre of the race.

Dr. NICOLSON said that when Dr. Mercier took up a subject he dealt with it in explicit terms, and never failed to call a spade a spade; but he objected most strongly to the word sin being introduced into the discussion, because in his opinion sin and sinning were subjects entirely outside the range of work which the members of the Association as practical psychologists had to deal with. There was no saying where the metaphysics of punishment might lead them in their discussion, but coming to the matter-of-fact modes of punishing crime, misdemeanour, misconduct, or offence, or whatever (except sin) we chose to call it, he (Dr. Nicolson) thought that, taken on the broadest grounds, the question of punishment had to be considered from three general standpoints. The first was the legislative and judicial, where the judge had to award sentence or punishment upon lines laid down by the laws of the country: as in sentencing to death a person convicted of murder, or to penal servitude or imprisonment a person convicted of a less heinous offence. The second was the official standpoint, where, for instance, governors or superintendents of prisons, asylums, reformatories, and the like, colonels of regiments, schoolmasters, and heads of departments, firms, or families had to inflict punishment. Here a sense of duty in seeking to carry out successfully a responsible trust was the gauge or guide by which punishment was measured, and notions of mere vengeance were not to be entertained. This sense of duty was no doubt varied in its outward expression by the individuality of the punisher. The third standpoint was the personal one, and here sentiment on the one hand and retaliation on the other were the feelings which struggled for the mastery in the mind of the individual when meting out the punishment. A point that has to be considered is the variety of ways in which the same punishment affects different individuals. *Quot homines tot sententiæ.* I have seen a convict take three dozen lashes without turning a hair or making a sound above his ordinary breath, and another writhing all through the flogging amidst his penitential howls. It is many years since I witnessed a flogging, but much as I personally disliked seeing it, my opinion is that in prison it is necessary to retain flogging as a punishment in extreme cases, and after careful and well-considered examination into the circumstances of the case. For us, as asylum medical officers, the official standpoint is the one of chief interest, and when an inmate of an asylum has to be corrected, or, if you like it, punished, as children have to be corrected or punished, we must never forget that the feelings of the inmate, however much or however little his insanity is now actively at work, have in the first instance been outraged by his having been compulsorily taken from home and shut up and deprived of his civil and domestic rights and privileges. I think that this point is one that is apt to be overlooked. Again, we ourselves, as we get older—at least, that is my experience—are influenced by considerations which in our younger days of sterner notions on the punishment question were less apt to sway us. By all means let order be maintained on firm principles and by disciplinary means, but my somewhat lengthy experience has taught me to derive greater satisfaction from the success of punishment by kindness, if I may use the phrase, with its genuine spontaneousness, than at the not always lasting success that attends punishment on rigorous principles. We are all conscious that we ourselves from time to time offend others by saying something for which we are sorry, or by doing something which on reflection we regret; and it is well for us to try not to forget this when we are searching in our mind for the appropriate punishment for those who similarly offend or who break rules.

Dr. DONKIN.—I think that an equivocal use of the word "punishment" has been a source of much confusion in this debate. Those who hold that the spirit of the "lex talionis" still largely informs the principle of legal punishment cannot reasonably extend this theory to the punishment in any form of those not wholly sane. But punishment according to another definition, with the sole object of restraint and improvement, in the form of deprivation of comforts or privileges, etc., is practically admitted as necessary and beneficial in some cases of this kind. On the other hand, those who contend that retaliation has no part in the State notion of punishment, the objects of which are only deterrence and reform, cry out against the punishment in any form of persons of imperfect control, thus using

the word "punishment" in a sense different from that of their own definition of it. The matter is thus largely a war of words. I agree so far with Sir Herbert Stephen that, rightly or wrongly, we have not rid ourselves of the *retaliatory* or "serve-him-right" notion as an element of State punishment of offenders, and would further say that without this notion, consciously or unconsciously held, public opinion would scarcely justify even the comparatively mild forms of modern penal methods.

Dr. JAMES SCOTT.—A good deal has been said as to the object of punishment. I do not think this can be stated in one word, for it is complex. I consider, however, the chief aim is deterrence. Dr. Mercier has been sweeping in his denunciation of our system of punishing criminal offenders. He spoke as if the deprivation of liberty is scarcely a punishment at all. From my experience I think there are comparatively few prisoners who do not consider this a very great punishment. It would be difficult to argue in the Law Courts that insane offenders should be punished to some extent. At present the state of matters is practically this—when a person is a certifiable lunatic he is exempted from penal treatment. If one can only say that the prisoner is of weak mind, he or she is liable to be sent to prison, but the degree of their responsibility is taken into consideration.

Dr. J. BENSON COOKE said this was a subject of peculiar interest to all who, like himself, were engaged in medical work among prisoners. None of the previous speakers had referred to public opinion as the strongest influence at work in moulding and shaping the decisions of magistrates and judges in awarding sentence and in determining the character of prison discipline. The trend of public opinion was all in the direction of excessive leniency. The prison population was a dwindling one, and if the conclusions of some optimistic student of morals were correct we must rapidly be approaching the Millenium. This might seem absurd (a voice—"It is!"), and some among them would be of opinion that there was another side to the picture. But if these conclusions were correct, the subject for discussion that afternoon would be one of academical rather than practical interest. He referred to the animated discussion on the habitual criminal that has recently been carried on in the daily press, and expressed the opinion that the law was wrong in making it possible for a professional criminal to be constantly in and out of prison. In this the country was not dealing fairly with itself, or with the criminal, or with his relatives and friends. Whenever he went outside a prison he was a focus of moral infection. He should be considered unfit for liberty, but his continuous imprisonment should be made easy. It was objected that no judge or jury would undertake the responsibility of branding any man as an habitual criminal. He (the speaker) allowed that this was a very strong objection, but he thought the difficulty might be surmounted by taking the penal record as a guide, and when it was found that something like three sentences of penal servitude and five or six or more minor convictions were recorded against the accused, the burden of proof that he was not an habitual criminal should rest upon him. The way in which men of this class spend a large part of their lives in prison, with intervals of liberty, was most distressing, and was fraught with great danger to the public.

Dr. HAYES NEWINGTON.—I am glad that on this occasion the question of punishment has not got as far as the asylum, the discussion having gone on more general grounds. I am sure that several present would have been ready to join issue as to the admissibility of punishment into the treatment of insane patients. On the occasion of a similar discussion some years ago I analysed as far as I could the purposes of punishment on the same lines as have been adopted to-day, and I gave reasons against its employment in the case of the insane, whether as a measure of retribution, as a deterrent, or as an improving agent. It is satisfactory to find that in regard to the latter, which affords the only possible ground for even discussing the matter from our point of view, the eminent authorities who have spoken to-day have such divergent opinions as to put it out of court altogether.

Dr. MERCIER, in reply, commented upon the progress that had been made since he first introduced the subject. He then almost needed an escort of police to get him safely out of the room, while now he had the powerful support of Dr. Savage and other members of the Association, while the opposition was practically non-existent, or at any rate silent. It had been made a complaint that he had made no

mention of reformation, but he regarded reformation and punishment as totally distinct things, though they might be conducted together. The fire that cooks our dinner may be very useful in drying our clothes also, but a section on the drying of clothes would be out of place in a cookery book, and the treatment of reformation would be equally out of place in a paper on punishment. It was no doubt true that public opinion was more and more against the infliction of punishment, both in gaols and schools, as well as elsewhere, and he was not sure that the trend of opinion in this direction was wholly beneficial. He was himself at a public school where the boys were caned all day long, caned for everything and caned for nothing, and, "Gentlemen," said he, "look at the result." The suggestion that judges would never allow unsoundness of mind as a plea for mitigation of punishment was a little unfortunate in view of the cases which it had been his duty to report in the Journal of the Association, in which this plea had again and again been accepted and acted upon; and cases of the kind were, he was glad to say, becoming more numerous. He was a little sceptical about watches having been hung by the wayside in the reign of Henry VI, seeing that they were not invented until Henry VIII was king.

Clinical Notes and Cases.

A Case of Epileptic Homicide. By R. PERCY SMITH, M.D., F.R.C.P., Physician for Mental Disorders, Charing Cross Hospital.

ON March 4th, 1901, Charles Edward Canham was tried at the Nottingham Assizes for the murder of his wife and infant child. The facts were as follows:

On November 29th, 1900, prisoner and his wife went to bed at 11 p.m., the child sleeping in the same room. At 7.30 the next morning the eldest daughter went as usual to call her father and mother and to take them cocoa. She knocked, but received no answer; about half an hour later she knocked again and thought she heard him say, "Your mother and I have had a bad night; go down and come up again." She went again subsequently and obtained no answer, but eventually assistance was obtained, and at 12.30 the door was broken open. The wife was then found to be dead in bed with four penetrating wounds in the skull, as well as three other contused wounds, and a mark in the pillow as if it had been struck with an instrument which had penetrated it; the child was found to have its throat cut so extensively that all the vessels and the trachea were completely divided, while the wound had extended through an intervertebral disc, and had even gone into the

spinal cord. A coal hammer was found on the floor wrapped up in a towel, and a carving knife, covered with blood, on the washstand. The husband was sitting in a chair in the middle of the room in his nightshirt with his eyes closed, his head bent, and his hands loosely in front of him.

He seemed to be quite unconscious, made no reply when spoken to, shouted at, and shaken, made no resistance when laid on the floor so that he might be dressed to be taken to the police station, and was carried in the same flaccid unresisting state to a cab. He, however, closed his eye when an attempt was made to test his conjunctival sensitiveness, and the doctor who examined him considered that he was "not totally unconscious." An empty phial, which had contained chloroform and oil of cloves was found on the washstand, and there was a smell of the latter drug. There were blood-marks on the prisoner's nightshirt and arm.

Arrived at the police station, at 3.15 p.m., further attempts were made to rouse him, and with the idea that possibly he had taken poison a stomach-pump was passed but the fluid that was drawn off merely contained clear gastric secretion, and did not smell of either chloroform or oil of cloves. The police surgeon was convinced that no poison had been taken. He, however, believed that the prisoner was conscious at this time, his reasons for this belief being that the prisoner resisted having his mouth opened, and moved his head from side to side, although he kept his eyes closed and made no reply to questions. Ultimately, after pressure on the supra-orbital nerves, he opened his eyes and began crying. Afterwards the police surgeon saw him again in the cell, when the prisoner, who was crying, was said to have asked where his children were, or according to another version he is reported to have said "I have been roughly treated, which of my children is dead?

At 5 p.m. he was further examined by another police surgeon for the purpose of ascertaining whether he was in a fit condition to understand the nature of the charge to be made against him. At this interview he appeared to be thoroughly conscious of the position he was in and to be sane, but said he was entirely unconscious of anything that had happened between the time when he last applied the chloroform and oil of cloves after going to bed, in order to relieve severe neuralgia, and the time when he became conscious again at the police station after

the stomach-pump had been passed. He burst into tears and used many expressions of endearment in regard to his wife and children. When charged by the police superintendent he said, "Oh my poor boy, are any of the other children hurt?" and added, "We never quarrelled in our lives. How could I have done it? I suffer very much from my head, especially at night."

The prisoner was examined at the Nottingham Prison by Dr. Evan Powell for the prosecution, and subsequently by me for the defence, his story being practically the same to each of us.

His history, as elicited from various sources before and during the trial, appeared to be as follows:

He was fifty years of age. He went into the army in 1870, and joined the Army Service Corps. He was in the Ashanti Campaign of 1873–4, and suffered severely in health. He had a sunstroke and was unconscious from noon one day till the next morning. He also had severe attacks of "fever and ague" with delirium many times. At Mansu he was very ill and had to be sent down to the coast and admitted to hospital. He was then sent home, but was very ill on the voyage, and had fever and delirium at Teneriffe. He was subsequently ill at Aldershot with fever and delirium, and then, while staying with his relatives for two months, he was said to have had several "fits." These fits were said by the witnesses who proved their occurrence to be exactly similar to a definite epileptic seizure which his brother had had when a boy, that in them he seemed completely to lose consciousness and was subsequently very violent to his brother and two other men, though there was no ill-feeling between them. It was proved that on one occasion he kicked his brother out of bed, and on another tried to put him up the chimney when there was a large fire, and had to be restrained by force. There were said to have been a great many of these "fits" during the two months he was at home, sometimes six or seven in a night, and that sometimes he recovered consciousness between them and sometimes did not. It was further proved that "when the fit was over he did not recollect what he had done, and they could never convince him that he had done anything." After these attacks he had great pain in the head, and said it used to "open and shut.' After two months at home he rejoined his corps, and though there

was no evidence of any further "fits," evidence was given that at the Hulme Barracks, at Manchester, in 1875, he had further attacks of fever and delirium, and that he would "sit down for hours and stare before him without saying a word." He was noticed to be very depressed at times, the attacks of depression coming on suddenly, and passing off much in the same way. He also suffered severely from pain in the head. He was looked upon by those who were at the time associated with him as eccentric.

His health seems to have improved for a time after this, and in 1878 he married, eight or more children being subsequently born of the marriage, and he and his wife and children were always on the most affectionate terms.

In 1881 the attacks of depression were said to have increased.

In 1882 he went out to the Egyptian Campaign and had much hard work and exposure to the sun, and again many attacks of fever with delirium.

Lieut.-Col. Martin, of the R.A.M.C., saw him in Egypt, and treated him for a week for "petit mal de soleil," and thought him peculiar and eccentric, and used to call him "cave canem." He was in Egypt and the Soudan from 1882 to 1886. He does not seem to have had what could be looked upon as a definite epileptic fit, though the term "petit mal de soleil" used by Colonel Martin is suggestive; but according to his own statement he had "fainting fits," especially after work at high pressure. He never bit his tongue or passed water in these, but had "surging in the head" first, and lost consciousness for a long time. As to his character while in the army, there was plenty of evidence of its having been exemplary.

The late General Wauchope had given him a testimonial speaking in the highest terms of his capacity, tact, judgment, and pluck, and saying, "As a warrant officer of first-class rank there was hardly an office he was not fit to hold," and the colonel of the regiment he was connected with in the Soudan testified to the excellent services he had rendered and the efficient manner in which he had carried out his duties in charge of the supplies.

He moreover had special promotion for service in the field, and had attained to the highest non-commissioned rank in the Army Service Corps. He appears to have been strictly temperate, and to have been a man of strict religious views

and principles. He left the army in 1891 with an excellent discharge, and had never had a bad entry against his name.

Subsequently to leaving the army he had followed a civilian employment, and had for the last two years lived in Nottingham, and had been an agent to the Prudential Insurance Company.

He still continued to be subject to attacks of ague, though apparently now without delirium; but sufferely severely from neuralgia. His own description was that he had suffered "untold agonies" from it ever since the Ashanti Campaign, and that it used often to come on without warning, sometimes with and sometimes without ague. He said, "I have been in such agony that I did not know what I was doing and what to do; it has been uncontrollable and unbearable; I have said to several people that this would drive me mad."

He had tried various drugs, the chief being gelsemium, bromide of potassium, and "nerve tablets," and also chloroform and oil of cloves as an external application. On the day of the general election he was so bad with it that he could not vote, and from this time down to the 29th of November he was very bad with recurrent attacks of fever and insomnia and neuralgia. He had at times to stay away from his office and could take very little food, and became depressed and weak. During the last few months he had also been very anxious about his wife's health. She had had a uterine operation, which, although it was trivial and successful, he thought was very dangerous; he even went so far as to be speak to people about his wife being in a dying condition, to the annoyance of the doctor who was treating her. There is no doubt he had a very exaggerated notion of the danger his wife was in, and was very solicitous about her. The prisoner had always been a very religious man. He had held services in rooms and in the open air, and had preached at times. His house was found to be full of texts of scripture written out, partly to remember them and partly to give away. Those who had been with him in Africa also spoke of his strong religious views, one of them going so far as to suggest that he must now be suffering from "religious mania" to account for the crime. In Egypt, although he could not read Greek, he appears to have always kept a Greek Testament. In only one respect recently had his conduct shown a departure from strict rectitude, and that was the fact that, instead of pay-

ing the premiums for life insurance, which he received from policy-holders during November, into the banking account of the insurance company, he had paid them into his own account at another bank.

These cheques amounted in all to some £200, and he would have had to account for them on the 30th of the month. It was found further that he had been lately, and especially since his wife's illness, spending money more freely than was his custom. It was also shown that he had some business in hand connected with some patents, from which he rightly or wrongly believed that he would receive about £1000 in commissions at Christmas.

We now come down to the days preceding the murder. On the 28th November he had very severe neuralgia and had very little sleep. He got up late on the 29th and went to his office for a short time, and did a little business. In the afternoon his wife sent him a note to say that one of their boys was ill and he went home to see him. This illness will be referred to later. At tea-time he was so bad with neuralgia that he could not sit down with the others. The eldest son and daughter went to a lecture in the evening, and he and his wife stayed at home. After the return of the children they all went to bed at about eleven. The son who had been ill in the day slept in the next room, his gas being left alight at a bead, and his father gave him a stick to knock on the wall with if he wanted anything. After a short time the son knocked, and when his father went to him he said the gas had gone out and had been escaping and he had turned it off; the father then saw that it was properly shut. The gas was also left alight at a bead in the eldest daughter's room upstairs, in which three other children slept, and it also went out at some time in the night and was found to be escaping. The man's own account of what subsequently happened was as follows :—"I went back to my room, locked the door, and got into bed, my wife asked me about the boy, I bade her good-night and tried to go to sleep; felt my head bad, and said so to her. I did not take any medicine or tablets, but could not go to sleep with pain in the right side of my head. I got out of bed (I do not know the time) and tried to stop the pain with chloroform and oil of cloves, I rubbed it on the jaw and side of the nose and behind the ear, and put some in the ear on wool. This did not check it and I then snuffed some up my nose; it burnt my

nose and seemed to set my brain on fire. I did not inhale it but snuffed the fluid up; it was the last of what was left in the bottle; I did not drink any. I do not know anything else till I was at the Guildhall." This, it will be remembered, was on November 30th, after he had been removed.

Of course the actual sequence of events immediately preceding the murder will never be known; but it would seem that during the time when he appears to have been unconscious he must have gone downstairs to the coal cellar and obtained the coal hammer—which was kept there,—and must also have obtained the carving knife from the kitchen, then returned to his bedroom and murdered his wife and child in the horrible way described. The daughter thought she heard a door bang at the time she woke up and found the gas was escaping; but no other sound was heard.

Referring to the events of the ensuing day he said, "I do not remember my daughter knocking at the door, or answering her; I do not remember the door being opened, nor anyone speaking to me. The next thing I remember is a pain in both eyes, and that someone was trying to gouge my eyes out. I felt something taken out of my mouth, but did not know what it was. My brain, as it were, suddenly sprang into mad activity, and I felt as if there were a throbbing and intolerable anguish in my head. I did not know if I was dying or not. Some one shouted questions at me; I then found myself in a cell; police were round me. I heard someone say that I had murdered my 'missus and the kid.'"

He was very much upset in telling this, but his emotion was not in any way exaggerated; he said that he and his wife had never had any disagreement all their married life, that he had no cause for killing his wife, and that it was the worst thing that could have happened to him under any circumstances, and his words were, 'Just when she was getting better I killed her, awfully murdered her; it seems incredible to me now.' His last sentence to me was, "I had no reason to kill my wife, but a thousand reasons against it. I would have died a thousand times rather than she should have been hurt. She was the best of wives. This ordeal I have to go through is terrible to me and I think of my poor dear children—my girls and boys."

He made no attempt to simulate insanity at my examination, did not plead epilepsy or previously existing insanity, and did

not seem to know that the condition might be regarded as a post-epileptic one. He adhered to his statement that he knew nothing of what had happened except what he had subsequently heard. My firm conviction was that his statement was perfectly genuine.

The medical officer of the prison did not detect signs of insanity during the time the prisoner was under his observation.

The prosecution had two theories; first, that the prisoner being in money difficulties had determined to kill his wife and child and also the other children, and with this object had gone down to the coal cellar, turned off the gas at the meter—knowing that the gas was left alight in the bedrooms at night,—and had then turned it on so as to suffocate those who were not in his bedroom. It was supposed that he then brought up the coal hammer and a knife to murder his wife and child, and that he had subsequently attempted suicide by drinking the chloroform and oil of cloves which he had purchased ostensibly for neuralgia.

The second theory was that the prisoner, having committed the murders, but not suicide, then shammed unconsciousness of his acts and of the occurrences of the next morning until he was forced to allow that he was conscious after a stomach-pump had been passed and his eyes had been vigorously tested at the police station.

With regard to the first theory, although he was in difficulty about accounting for the insurance premiums which had been paid to him, and for which he would have had shortly to account, it was at the same time proved that he expected to receive a large sum of money shortly, which would put any temporary difficulties absolutely right, and therefore the money difficulties did not seem at all sufficient reason for his murdering his family, and it may be safely said that even if this had been proved to be his motive for the murder, it might fairly be looked upon as an insane motive, and certainly would not have proved sanity. Moreover, in killing his wife and family who were at home, as well as himself, he would still have left two elder sons, who were not living at home, to bear the disgrace and misery of the occurrence, so that they would not all have been put out of their misery together. With regard to the escape of gas, it was proved that the boy had called his father's attention to the

escape of gas before the time when the man alleged that he lost consciousness and, further, that the gas had behaved in a similar way before, and, most important, that the key of the meter had been hidden some time before by an elder son in order that the children might not play with it. The man himself declared, and I believe quite truthfully, that he had not seen the key since it had been hidden, that he did not know where it had been put, and that he had never touched the meter since he had been in the house. With regard to the visit which he must have made to the cellar to fetch the hammer, it is interesting to note that he had on the previous evening gone to the cellar to fetch some coal in the absence of the charwoman, who usually did this for them, and had then used the hammer to break some coal. It seems quite certain, however, that he did not on that occasion bring up the hammer, and it looks as if the visit to the cellar in the night and the subsequent use he made of the hammer were a more or less exact repetition automatically of acts done shortly before in a normal state.

The suggestion that he had attempted suicide was negatived by the results of passing the stomach-pump, and was not pressed at all.

It may be said that the attempt to prove sufficient motive for the murders, to prove attempted murder of the other children in the house by suffocation with gas, and to prove a suicidal attempt had entirely failed.

The second theory was that the prisoner, having committed the murder of his wife and one child without any definite motive, and although he had been a most exemplary and devoted husband and father, subsequently shammed unconsciousness. The daughter who called him in the morning thought she heard him speak on the second occasion, and what she thought he said was what he had often said before after he had had a bad night, and the remark might have been made automatically on this occasion. The surgeon who was called when the murders were discovered thought he was "not totally unconscious," and that the reflex closing of his eye meant that he felt pain. The police surgeon who subsequently saw him thought he understood what was going on, and that the resistance of the jaw to an attempt to open his mouth, the moving of his head from side to side, and the tight closure of the eyes when

their sensitiveness was tested, meant that he was conscious at that time. It is acknowledged by the prisoner that he became conscious about this time, and the first remark he is said to have made was an inquiry as to which of his children was dead. The prosecution rightly laid stress on the point that if he had asked this question spontaneously it would in all probability have implied at least some knowledge of the events which had happened. It transpired, however, in the course of the trial, that there was no doubt that just before or at the time when he definitely and confessedly became conscious the subject of the murder had been spoken of in his presence by those around him, and that a constable had been censured for it. Assuming the truth of his statement to me, which was not contradicted by the prosecution, that the first thing he heard was someone saying that he had murdered "his missus and the kid," his subsequent question, and the fact that he began to weep were completely explained. We now come to the question as to what was the condition leading to unconsciousness during which a man devoted to his wife and family, with no known motive, should in an apparently purposive manner seek for weapons, murder his victims by acts of extreme and unnecessary ferocity, and subsequently be found in an unconscious state, with no memory whatever of the occurrences, and should make no attempt to escape or to hide the traces of his crime. It was, of course, at this point that the expert evidence became important. Dr. Evan Powell, of the Nottingham City Asylum, had examined the prisoner in prison, and, as I have before said, the statements made to him by the prisoner agreed with those he subsequently made to me.

Dr. Powell was a witness for the Crown, and in his examination in chief stated that the facts were consistent with the assumption that he was suffering from epilepsy, and in his cross-examination he allowed that, given a family history of epilepsy, a personal history of sunstroke, of attacks of delirium with great violence and subsequent unconsciousness of his acts, and finally, worry, sleeplessness, and severe pain, the more likely would the prisoner be to suffer from some form of epilepsy. Further, supposing that he was an epileptic, Dr. Powell considered there was absolutely nothing inconsistent in the apparently deliberate search for a weapon, the extreme violence, the subsequent unconsciousness, and then a return to

the normal, and also in the fact that a long interval of years had elapsed since the prisoner had had anything that could be looked upon as a definite epileptic seizure. With regard to this point, although there was no definite history of any "fit" since those in which he attacked his brother, I think the history of "faints," of sudden attacks of depression in which he would stare at people and subsequently become suddenly cheerful again, his exaggerated way of talking about trifles, and his very marked religiosity have all to be taken into consideration in coming to the conclusion that the man was epileptic.

Dr. Thomson, of the Norfolk Asylum, was also called by the Crown to prove the fact that the prisoner's sister had been at that Asylum suffering from puerperal insanity. In addition, he proved that her son, born before the puerperal attack, had also died there of phthisis, his illness having begun with epileptic seizures with homicidal tendency, and ended in dementia. Dr. Thomson considered that not only was it possible that the murders were committed in an epileptic state, but that it was more likely than not.

Lastly, we come to the collateral facts, which were brought forward to show that the prisoner belonged to a neurotic and insane family, and that epileptic seizures had occurred in several members of it. The prisoner's brother had in boyhood suffered from a definite epileptic seizure, but had apparently remained free since. Two of this brother's children, one a boy of ten and the other a girl of eight months, had died in epileptic fits, there being no insanity on the mother's side. The prisoner's sister and her son had suffered as above mentioned. No history could be produced as to family history in preceding generations. A very important fact, however, came to light, which was that the prisoner's son, the boy whom he went home to see on the afternoon before the murders, suffers very often from attacks which are called "fainting fits," in which he suddenly becomes unconscious, becomes stiff, though without clonic convulsion, and sometimes wanders afterwards in his talk and has no memory of the attack. These attacks are looked upon as being nervous in origin and not cardiac, and it seems to me that it is fairly arguable that they are attacks of minor epilepsy. There were therefore in the prisoner's family at least five cases where some form of seizure or fit had occurred, in one case

followed by insanity, and in addition one case of puerperal insanity.

At the trial the counsel for the prosecution showed great willingness that any facts which could weigh with the jury in the prisoner's favour should be brought forward, the prosecution called for the production of the case-books from the Norwich Asylum to prove the sister's puerperal insanity, and it may be fairly said that both the expert medical witnesses for the prosecution became practically witnesses for the defence, so that in his summing up the judge (Mr. Justice Lawrence) had the duty, pleasant to the Court, as well as to the medical witnesses, of remarking that the contention of the defence was borne out by the medical witnesses for the prosecution, in other words, there was not the conflict of expert evidence which is apt to produce such an unfavorable impression in such cases. The judge did not refer to the rules in MacNaughten's case, did not mention the question of "right and wrong" and knowledge of the "nature and quality of the acts" committed, but said that the question the jury had to consider, "practically the only question, was whether the deed was committed under circumstances which would absolve the prisoner from the full consequences of the crime." They had to decide whether the prisoner was suffering from epilepsy, and whether the defence had satisfied them "with regard to the prisoner's epileptical history." The evidence of Dr. Evan Powell and myself was read over with the comment that the medical men had declared that, given tendency to epilepsy, the whole thing was consistent with the commission of the crime during an attack of epileptic mania. Moreover, the judge said, when they were considering the history of the prisoner they could not shut their eyes to the history of the other members of the family.

It will be seen that the judge allowed the greatest latitude in admitting the evidence of the past history of the prisoner, his family history, and the expression of the opinions of the medical witnesses as to the facts which could not have come under their immediate observation, and that his summing up was distinctly in favour of the prisoner. The jury returned a verdict of "guilty, but insane," and the prisoner was ordered to be detained during His Majesty's pleasure.

I must apologise for bringing this case at such length

before the Association, but, considering the doubts which at present exist as to what view the judge may take, and what ruling he may deliver to the jury in any case where the plea of insanity is raised, such cases are always full of interest. Moreover, although the case now reads as a connected whole, the history was not pieced together till the last moment, and witnesses had to be unearthed who could give evidence as to long-past events. It may be safely said that the result shows the value of getting the most complete history of the family, and of the past life and medical condition of any patient, whether he be an ordinary patient in a hospital or asylum, or a prisoner at the bar.

DISCUSSION

At the General Meeting of the Medico-Psychological Association, 23rd May, 1901.

Dr. THOMSON said the case Dr. Percy Smith had brought forward was one of those interesting cases in which doctors are convinced that murder may be committed in a state of unconsciousness, and he was sorry that some of the legal gentlemen who had taken part in the discussion on the previous paper had left the room. Having been called as a witness in the case he did not think Dr. Smith had omitted any of the details. He considered that the word "fit" was so loosely used by the relatives of patients, that not much reliance could be placed on their descriptions, and he doubted whether the man had really had epileptic fits in the past.

Dr. HYSLOP stated that he had found that a large percentage of cases of sunstroke were followed by epileptic seizures; some of these cases recovered after a sea voyage. He asked if care had been taken to exclude other conditions in which homicide is associated with unconsciousness.

Dr. SMITH replied briefly to the effect that the man's past history seemed to point to definite seizures, at least at one former period of his life, and that all the possibilities had been considered but were rejected in favour of a post-epileptic state, though of course nobody observed the man at the time of the murders.

Notes on Two Cases of Insanity following Chorea. By ROTHSAY C. STEWART, M.R.C.S.Eng., Superintendent, Leicester and Rutland Asylum.

THE apparent rarity of cases of insanity associated with chorea, has induced me to bring forward to you to-day two cases which have recently been in this asylum.

M. A—, a female æt. 16, was admitted into the Leicester Infirmary on February 13th, 1900, suffering from marked chorea. Is said to have had a previous attack. About a month afterwards she showed marked signs of mental disturbance, taking the form of melancholia. She was certified and removed to the Leicester Borough Asylum. From here she was transferred to the Leicester County Asylum on

May 16th, 1900. While at the Infirmary she would sit in one position for a long time. She would not dress herself properly, and threatened to throw herself out of the window.

On admission here she had a dazed, vacant expression, was slow in action and speech, and the same question had to be repeated many times before an answer was elicited. Her memory, too, seemed to be at fault, and she could give no reliable account of her previous history.

There was no distinct evidence of chorea present. Lungs were normal; heart was regular; pulse 80; no cardiac murmur. Patellar reflex was dulled, pupils dilated, equal, and acted but slightly to light. Urine, sp. gr. 1002 and acid.

May 21st.—Takes little or no interest in her surroundings, wanders aimlessly about the ward, and is frequently in and out of bed. She takes her food well. Cries without any obvious reason.

28th.—Is beginning to do some odd jobs in the ward, and to take some notice of her surroundings.

June 5th.—Is much brighter, and less inclined to cry.

July 1st.—Is considerably improved, and is generally occupied in sewing or other work. Has gained flesh considerably.

September 15th.—Was discharged recovered.

Some few weeks after her discharge she was readmitted into the infirmary for gastric ulcer.

J. A. S—, female æt. 28, single, admitted December 27th, 1900.

History.—No indication of any neurosis in the family, and no history of rheumatism. When she was about twelve years old she was run over by a conveyance and very much shaken; shortly after this she is said to have developed chorea. Ever since then her character changed, and she has been different to other young girls. During the last six months she became much worse mentally; she would enter the neighbour's houses, walk into any room she fancied, lie down on a sofa or a bed, and sometimes proceed to undress herself. Lately she has become rather excited, and would create a disturbance in the street or in church. On one occasion she emptied a can of milk over her mother, and in other ways threatened her parents. She has taken her food indifferently, and slept badly at night.

On admission she was very restless, talked freely in a peculiar, affected manner, and repeated a remark several times over with much gasping; for instance, she would say: "You have two pianos—for deliverance—for me." "Yes, you have two pianos—for deliverance—for me." Or, again, "a gold watch and chain—for deliverance—for me." When talking she would pay little regard to questions put to her. There was considerable twitching of the facial muscles, and her eyes would turn upwards.

Physical condition.—A tall, slender woman with dark complexion. Hair brown, eyes dark grey. Pupils widely dilated, equal, but do not react to light. Patellar reflexes dulled. Abdominal tenderness. Tongue furred. Urine, sp. gr. 1010, acid, no albumen or sugar. The heart is slightly enlarged, action regular and forcible, and there is a double aortic murmur.

The following are the notes in the case-book up to the present time:

January 9th, 1901.—Holds herself stiffly with arched back, talks in the same strain; unoccupied. Is given a mixture containing iron and arsenic.

23rd.—Is beginning to make herself useful in the ward.

February 12th.—Sings loudly in chapel and very much out of tune.

20th.—Feet and ankles œdematous. Temp. 100°.

24th.—Complains of pain all over; is sullen and morose; is confined to bed.

28th.—Left knee was swollen. Temp. 100°. Cries out at night at intervals.

March 3rd.—The swelling has gone down. Says she has no pain, and does not cry out, but she is very weak, and has some difficulty in getting out of bed. She is now very communicative and polite in her address.

30th.—Answered questions in a snappy manner, and appeared very cross. Still repeats sentences. Is stronger and able to leave her bed for a part of the day.

Remarks.—Cases of choreic insanity have apparently certain symptoms in common; there is change of temper and character with suspicions of persons around them; there is loss of memory and a diminished power of attention.

Dr. Arndt in his discussion on "Chorea and Psychosis," says that chorea does not exist without more or less simultaneous affection of the intellectual faculties; that in many cases it is so slight as to escape observation, and that the main features are incoherence of ideas and inattention to surroundings.

The seat of the disturbance is probably in the cortex, but morbid anatomy has not yet given us any change of sufficient frequency to indicate the primary lesion. Chorea has been explained by some as due to minute emboli, and Letschenow has put forward the theory that the disease is in the optic thalami.

Dr. Clouston has recorded two cases of choreic insanity which were closely associated with rheumatism, but in neither of these was there any cardiac murmur, and he lends his support to the hypothesis that the cause is to be found in a change of the blood. Leube accepts the idea that the blood-change is a chemical one, having a specific action on certain parts of the nervous system.

The most frequent change found *post mortem* is endocarditis with minute vegetations on one or more valves, but facts have

been brought forward to prove that the endocarditis is often secondary to the chorea.

In the two cases I have quoted there is a history of more than one attack of chorea, and in my opinion this rather points to some change in the composition of the blood.

Discussion

At the Spring Meeting of the Northern and Midland Division, 3rd April, 1901.

The President said he was quite sure they would agree with him in saying their hearty thanks were due to Dr. Stewart for these interesting notes. Sir W. Gowers held that chorea was always due to an alteration in the blood state. It was also held by many authorities to be due to a microbe in the blood, but unfortunately the microbe had not yet been discovered. In quite a number of cases he had had under his own care lately he had noticed that chorea had been associated with hysteria. In three cases the hysteria was quite as marked as the other condition. Of course many authorities held that there was a close relationship between rheumatism and chorea; indeed, he believed Dr. Cheadle went so far as to say that every case of chorea was due to rheumatism, but that in his (the Chairman's) experience was not true. Many cases were due to fright which caused an alteration in the blood-state, as rheumatism would also do.

Dr. Macphail said that in the last few years he had had sent to him two adolescent girls, who had had the advantage of seeing one or two well-known physicians. They had been in various hospitals, and were both diagnosed before he got them as cases of chorea. Eventually both turned out to be cases of general paralysis.

Dr. Pope (Senior Physician, Leicester Infirmary) said they had been kind enough to let him attend their meeting as a visitor, and as one of the cases referred to by Dr. Stewart was under his care, they would perhaps allow him to make a few observations with regard to the case of the elder girl. He could not add very much to what Dr. Stewart had said about the mental condition. She was, so far as he was able to judge, almost a typical case of melancholia. There was one point about the case which Dr. Stewart mentioned as being unusual, namely, that the reflex knee-jerk was rather dull. She had, however, been treated by large doses of arsenic—his usual custom in these cases—and that might account for the knee-jerk not being very brisk. In chorea the knee-jerk is rather brisk than otherwise. Another case came under his notice when he was examining some backward children in the schools in Leicester. It was the case of a boy of twelve, who a year or two ago was described by his own doctor as an idiot. No doubt the diagnosis was correct as far as the doctor could see at that time. The boy was unclean in his habits, used to steal and lie, and altogether had apparently no moral sense whatever. Well, he (Dr. Pope) saw the child eight or nine months perhaps after the certificate of idiocy had been given, and at that time he described him as an imbecile. He was still dirty, would wander about and steal, had a dull sullen look, and would not answer questions, and had very much the look of an imbecile. He saw the child again, and the teacher rather demurred to the diagnosis of imbecility, saying the child was not hopeless. It was three months after his first examination that he saw the boy again, and he certainly was not an imbecile then. He had begun to talk quite rationally and to answer questions, could do little sums, and was beginning to know his letters well, whilst he could repeat a certain amount of what had been read to him. That child had had a very bad attack of chorea at the age of five. Of course, the opinion of their members here would be better than his, but it struck him that this was really a case of dementia following chorea. The child was a dement when he was described as an idiot, and passed through the stage of imbecility. Now he was better. Then they came to the question of the pathology of these cases. Of course, it was in doubt. He was afraid he must disagree with the President, for his experience was that chorea was as much an evidence of rheumatism as were rheumatic nodules. He thought it was almost invariably

a manifestation of the rheumatic state, excluding one or two abnormal forms of chorea. He thought the child that had had chorea would often develop rheumatism afterwards or heart trouble, and other conditions which accompanied the rheumatic state. Well, then, what was it due to? They did not know. They might suppose either that a bacillus invades the brain and affects the large cells, or else the bacillus itself might be the origin of some of the small emboli which had been found in cases of chorea. These cases of insanity following chorea resembled insanity following acute diseases; possibly the pathology of them might be found to be the same as the pathology of the other types of insanity, which he believed was quite unexplained at present. It had been his fortune to see a large number of cases of insanity of short duration following typhoid fever. After all the febrile symptoms had passed away, and the patients might be considered to be in a state of convalescence, he had seen almost every form of insanity—melancholic and violent cases—and in one case he remembered particularly that long after the patient was able to be dressed and get about, there was distinct evidence of what might be described as mania. He had seen two cases of persistent delusions lasting for weeks; one man said he had got a broken leg, and it was not until he had been actually put on his feet and made to walk across the ward that he would believe his leg was not broken. Dr. Pope thought, perhaps, that this is the direction in which they ought to look for the explanation of the pathology of these cases.

Dr. STEWART, replying on the discussion, said Dr. Pope had suggested that the doses of arsenic given to the elder girl would account for the knee-jerk being dull. But the second patient had also got a dull knee-jerk, and as no arsenic had been given in that case the explanation did not seem to hold good. These were the only two cases he had ever seen in his life, but he must say that whether they were due to rheumatic poison or not, it was still *some* poison. He did not think it was due to the emboli, or, if it were, how was it these patients had more than one attack? Neither did he think rheumatic poison was sufficient to account for it, because they did not get any history of rheumatism. In the case of the second girl there might be a suspicion of rheumatism, because her ankles were swollen in the last month, and the knee-joints also, but she had never had rheumatism before, and in most cases he rather thought the chorea was due to some poison other than rheumatism.

A Case of Glioma of the Cerebrum. By W. J. A. ERSKINE, M.D., and A. F. SHOYER, M.D.

A. J. B—, æt. 25, no occupation, admitted January 19th, 1897. Epileptic, not suicidal, not dangerous. Duration of attack three years.

Medical certificate.—She is irrational, noisy, and violent in her behaviour, trying to rush downstairs, and throws furniture about regardless of consequences. She has frequent epileptic fits, during and after which she is dangerous to herself and others.

Personal and family history.—Can read and write; factory hand. Has had three children, all alive and healthy. Age of youngest, four years on December 11th, 1896. None have fits, none weak in mind. No miscarriages. She was industrious and regular in habits, sober, of mild and feeble disposition, which has not changed. She was odd and peculiar, in so far as after a fit she would be strange in her manner for about ten minutes, after which she would be all right. Always healthy. Menstruation regular.

Family history.—No history of consumption, drink, or insanity.

History of present attack.—At the age of eleven she fell the distance of ten feet on to the crown of her head, and lay in hospital three weeks suffering from concussion of the brain. Her fits commenced after being confined with her second child seven years ago. She commenced to take slight fits, "more like faints or weaknesses," shortly after her third confinement. About three years ago she received news of the sudden death of her husband, who was killed abroad, from which time the fits became more severe, and she became strange in her mind after then.

History since admission.—Excited after fits, rushing about talking to herself. Repeats that she keeps awake, and has no passage unless she has medicine. Is demented and confused, chatters, and has the delusion that she never sleeps.

August 10th, 1898.—Memory much weakened, very anæmic, irritable, and fights at times.

October 11th, 1900.—Yesterday morning complained of feeling unwell and also of headache. She was sent to bed at 8 a.m. Later on, during the morning visits, was found in an unconscious state. She was pale and breathing quietly, her pupils were unequal and her legs drawn up. On pricking the skin of the face she raised each arm in a reflex manner. The right arm was much colder than the left. No paralysis of legs. About 1.30 p.m. she became comatose and blue in face and lips, and was breathing very slowly and noisily. Pulse small and about 100 per minute. She died shortly afterwards.

Autopsy.—Body well nourished. The sinuses of the dura mater and the veins in the pia arachnoid were distended with dark fluid blood. The lower one half or two thirds of the right frontal lobe and nearly the anterior one half of the right temporo-sphenoidal lobe were occupied by a gelatinous growth, coming to the surface on the lower aspect of the frontal lobe, where the sulci were obliterated, and on the opposed surfaces of the right Sylvian fissure (see Fig. 1).

The right central ganglia were also occupied by the growth, although retaining their form, and it thus had a free surface in the right lateral and third ventricles.

The remaining organs were healthy, but all were congested.

Pathology.—A section of the growth taken from near its centre showed it to consist of an intricate mass of interwoven fine fibrils, amidst which lay numerous cells, altered nervous elements, and altered blood-vessels.

(1) The cells appear to be of two varieties (Fig. 2); the first is a cell of irregular shape with a relatively large nucleus; the protoplasm of the cell stains fairly well, and the nucleus exhibits well-marked nucleus network These cells are the glioma cells. Fewer in number are round-cells with a nucleus about one fourth the size of that of the above cells, and which stains darkly and does not distinctly show figures. The cell-protoplasm scarcely takes up stains. These are apparently the

original neuroglia cells which have been invaded by the glioma cells.

(2) The nervous elements vary in condition according to the stage of invasion. Near the periphery of the growth the nerve-fibres can be seen to be undergoing degeneration, as shown by their beaded varicose condition. Nearer the centre of the growth they become broken up with bright refractive granules, which are first scattered about the field but are gathered up as described below.

(3) The changes in the blood-vessels are of interest.

At those portions of the growth where the nerve-fibres are becoming decomposed into the bright refractive granules mentioned above, the vessels are seen to be surrounded by large granular cells (Figs. 3 and 4), loaded with these very granules. These cells have nuclei of the same character as those of the neuroglia cells, and not like those of the glioma cells. And at a later stage of the process the granule cells discharge their contents, and the vessels appear surrounded by a mosaic of neuroglia cells (Fig. 5). These rapidly form fibrous tissue, and now the vessels appear to have enormously thickened fibrous coats. Still another change may take place, and the vessel be replaced by a hyaline rod without any appearance of a lumen (Fig. 6). All stages of this hyaline degeneration are to be seen. Sometimes the wall of the artery becomes calcified, as in Fig. 7.

From the above description it is apparent that the glioma cells are not found *in situ* but invade the other tissues. When the growth in this case started I am not able to decide, but should surmise that its point of origin was in the central ganglia.

FIG. 1.—Coronal section right frontal lobe.
FIG. 2.—To show two kinds of nucleus (*a*) glioma, (*b*) neuroglia, also eroded nerve cells.
FIGS. 3 and 4.—Granular cells about vessels.
FIG 5.—Granule cells in perivascular lymph space, after discharging their contents.
FIG. 6.—Hyaline degeneration of vessels.
FIG. 7.—Calcareous degeneration of vessel.

FIG. 1.

FIG. 2.

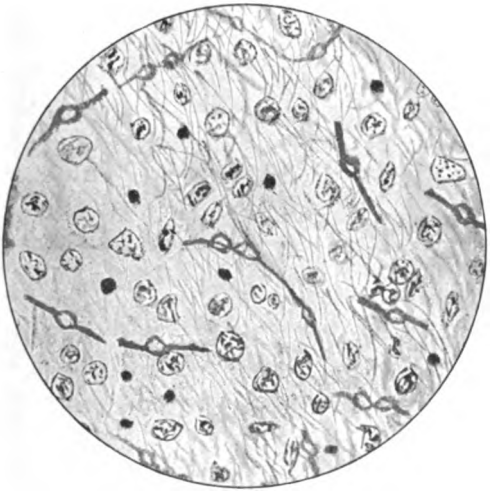
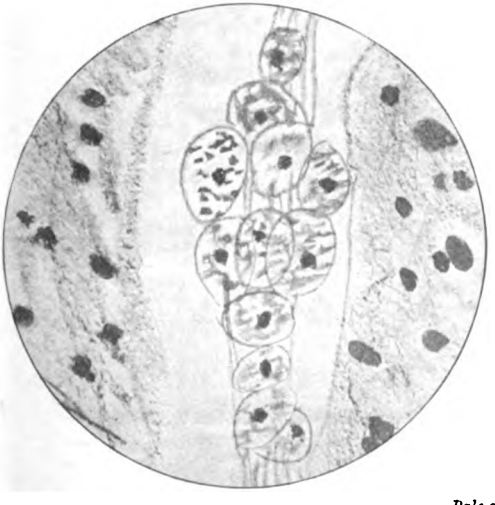


FIG. 3.



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To illustrate paper by Drs. FUSKINE and SHOYER.

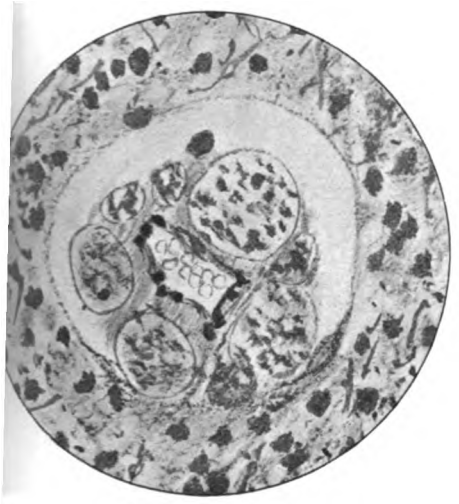

FIG. 4.

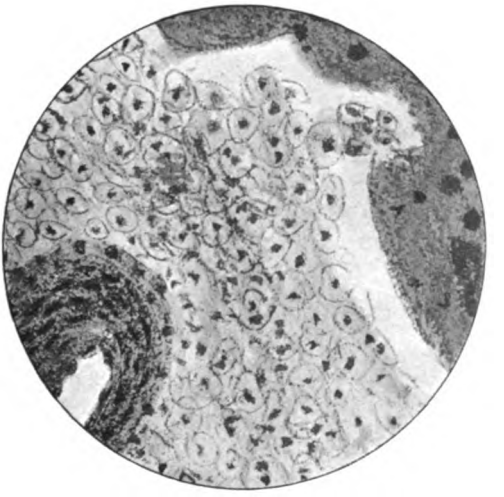

FIG. 5.

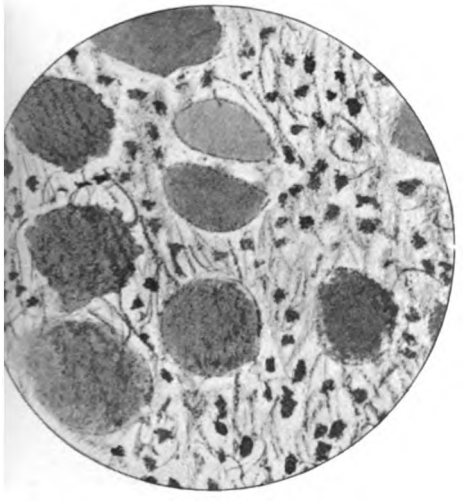

FIG 6.

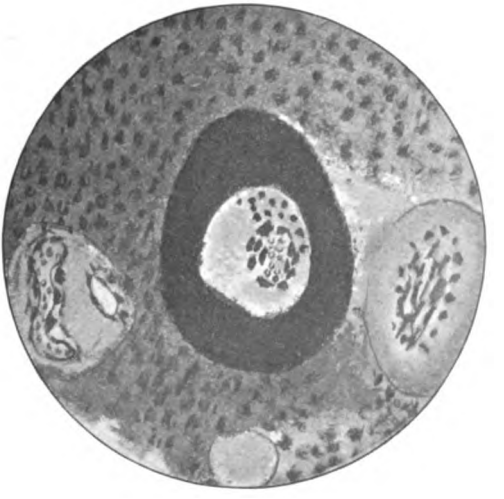

FIG. 7.

To illustrate paper by Drs. ERSKINE and SHOYER.

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Case of Double Sacculated Intra-cranial Aneurysm.

By B. HENRY SHAW, M.B., B.Ch., R.U.I., Senior Assistant Medical Officer, County Asylum, Stafford.

AUTHORITIES are very much at variance as to the most frequent variety of intra-cranial aneurysm; Erichsen states that they "are almost always formed by the uniform dilatation of a limited portion of the artery—the sacculated variety being rarely met with." Treves is impartial, while in Osler's series of twelve cases, eleven were sacculated. They are rarely met with in the asylum *post-mortem* room, the mental symptoms commonly produced being simple irritability, restlessness, or depression of spirits, very rarely definite insanity as in the following case.

A woman, J. A—, æt. 50, in fair general health, came under treatment here on August 15th, 1900, for Delusional Insanity, the duration of which was given as two years. No family history could be obtained. The following signs and symptoms were noticed.

(α) *Mental.*—From its onset her mental affection appeared to be of a simple delusional nature. While here she manifested various delusions of persecution, principally connected with telephones and electricity, and auditory hallucinations seemed to play a strong part in the production of these. The latter were of an intermittent character, and principally *en evidence* during the night-time. When not troubled by them she spoke nicely and reasonably, and was at all times quiet and courteous in demeanour.

(β) *Physical.*—She had almost complete right ophthalmoplegia, viz. ptosis, external strabismus, and fixity of pupil. This latter condition, though present as a rule, was not constant; there was no optic neuritis, nor did she complain of any dimness of vision when her other eye was covered. She said that this condition came on suddenly a few years ago, being preceded for about twenty-four hours by a violent pain in the right side of the head. She constantly suffered from a buzzing sound here, and periodically from acute pain of a hemicranial nature though she never vomited while under our observation. A habit of inclining her head over to the left side—that opposite the lesion—was also very noticeable. No other signs of organic disease were detected.

Termination.—On February 19th, 1901, I found her suffering from an apoplectic seizure, the convulsions being strongest on the left side. This was shortly succeeded by another in which they were universal, and she died soon afterwards. During these seizures her pupils were at first strongly and equally contracted, and finally moderately dilated.

Post-mortem Appearances.—On opening the dura mater, which was normal in adherence and texture, a large hæmorrhagic effusion was

seen beneath the pia arachnoid, distributed in a patchy manner over the frontal, occipital, and cerebellar regions, and most of the base; it was also present in the lateral ventricles, but especially so in the right, which was greatly distended by clots. This hæmorrhage resulted from the rupture of a sacculated aneurysm on the right middle cerebral artery, about the size of a pea, which had caused softening of the anterior portion of the island of Reil, gradually pushed its way towards, and finally ruptured into the right lateral ventricle. This aneurysm showed no fibrinous deposit, being thin-walled and perfectly empty. Another large sacculated aneurysm arose from the right internal carotid just as it pierced the dura; it was quite hard, being almost completely closed by laminated fibrin, about the size of a walnut, oval in shape, its long axis lying antero-posteriorly; below it pressed on the right cavernous sinus, and above had softened a considerable area, involving a portion of the anterior perforated space and uncinate gyrus. But for these areas of softening the cortex cerebri, both micro and macroscopically, showed no departure from normal. The heart was hypertrophied, and the aorta, cranial, and other arteries markedly atheromatous. The other organs do not call for special comment.

The principal points of interest in the above case are:

(1) The causation—evidently atheroma,—and cardiac hypertrophy.

(2) The spontaneous cure undergone by the larger aneurysm, evidently due to its own pressure on the trunk of the internal carotid in the cavernous sinus.

(3) The fact that the reputed site of the auditory centre is in the temporo-sphenoidal lobe, lends special interest to the association of persistent auditory hallucinations, and delusions founded thereon, with extensive degeneration of the uncinate gyrus, the cortical lesion here being of much greater extent than that caused by the smaller aneurysm on the middle cerebral.

Occasional Notes.

The Professional Examination of the Medico-Psychological Association.

Specialisation is ever advancing, and examination follows fast; if the one is established the other is almost justified. The reasons for an examination in medico-psychology are

certainly cogent, and it is to be hoped will be more convincing in the future to possible examinees than they appear to have been recently.

Medical men are now compelled to attend a course of lectures and clinical teaching on insanity, but few, if any of them are subjected to examination therein, so that they approach the duties of treating incipient insanity, certifying for lunacy, and in many instances the taking charge of single cases without any adequate test of their ability for such work.

That all medical men should pass a special examination in medico-psychology is unnecessary, but some proof of knowledge of insanity is certainly most desirable for those who undertake special relations to the insane.

The care of single insane patients, for example, should only be undertaken by medical men who have attained some special knowledge of the insane, by study or experience. The present state of the law, which admits of any one, medical or lay, taking charge of an insane person, is a scandal of the first magnitude.

What would the public say if it understood that lunatics were often taken charge of by persons without any special knowledge or experience, and that there was no mode by which the Commissioners in Lunacy could insist on such tests of fitness for such important responsibilities. The Association assuredly has a duty to perform in enlightening the public on the existence of this grave abuse.

The certification of the insane—a most important and onerous matter,—is by law thrust on medical men, however inexperienced in such work; there is no other way by which a lunatic can be put under control, and hundreds of medical men are most unwillingly compelled by force of circumstances to undertake this grave and disagreeable imposition. The law, we may hope, sooner or later, will provide that certification shall be done by medical men specially qualified, and in that event, the passing of the Medico-Psychological Association's examination should be made one test of a qualified certifier

Poor-law medical officers who have to sign numerous certificates of lunacy, should also have obtained some special knowledge before entering on work which at present they have usually to learn by experience, taught perhaps at heavy expense to their patients.

The existing Medico-Psychological Association examination would, no doubt, as it was intended, be sufficient to qualify students or medical men for such work; but for the more highly specialised posts of superintending institutions for the insane a higher qualification should be necessary, comparable to the Diploma of Public Health.

The Commissioners now insist on a certain amount of experience in persons undertaking the superintendency of private asylums, but they cannot prevent the committees of county or borough asylums from occasionally appointing persons who have had no previous special experience in mental disease; a higher special examination would make the latter abuse very much more difficult, and render the task of the Commissioners lighter.

To make special examinations a success, therefore, the Association, as a body, should press the need of reform in these matters on the Legislature, enlighten the public in regard to them, and enlist the sympathy of the general profession; unless some definite advantage or expectation of advantage can be held out to candidates, it is to be feared that the number of these will not largely increase.

The Sligo Cruelty Case.

Those who have had much to do with the rapidly increasing and rising class of politicians, may be disposed to echo with a slight alteration the words of the Latin poet, which Tom Ingoldsby was so fond of, "*politicum si dixeris omnia dixisti;*" but we are at present inclined to look at things in another way, and to entertain a real regard for the Irish politician. For a long time we could not understand why many of the most prominent of the Irish political leaders have expressed a strong desire to make the care of the insane in Ireland a national charge, and to place their management entirely in the hands of the Government. We did not see why a scheme should find favour so much at variance with modern democratic notions of Local Government. We believe we understand it now, that is, if anybody can understand anything Irish.

In the *Irish Times* newspaper of May 14th, 1901, we find the following announcement:

CRUELTY TO A LUNATIC. A KEEPER SENT TO JAIL.

Yesterday, at Sligo Borough Petty Sessions Court, before the Mayor, Mr. E. Foley (presiding), and a large bench of magistrates, a man named Thomas Gaffney, an attendant in the Sligo Lunatic Asylum, was charged by the Crown, at the instance of District Inspector Carden, R.I.C., with having brutally assaulted a lunatic patient, named P. Lenehan. Mr. W. R. Fenton, Crown Solicitor, prosecuted, and Mr. R. Tighe defended. An application on behalf of the defendant for an adjournment for three months was made, Mr. Tighe stating that the governors of the asylum had placed the keeper Gaffney on probation for that period, as a punishment for the assault. The magistrates decided to hear the case. Mr. Fenton said that the patient who had been so brutally assaulted was a most inoffensive man, the form of mania which affected him being restlessness and depression. It appeared that because the patient did not sit down immediately, on being ordered to do so by Gaffney, the latter beat and kicked the unfortunate patient in a cruel manner. The assault took place on the 2nd April, and the Inspectors of Lunacy held a sworn investigation on the 4th April. The result of the investigation was that the inspectors recommended the Board of Governors to dismiss the attendant; but the Governors refused to do so, and cautioned him instead, and put him on probation to be of good behaviour for three months. Evidence was then given by the man who was beaten, and another attendant also deposed to the fact that Gaffney had kicked the patient. Dr. Gilcrist, the assistant medical officer of the asylum, and Dr. E. C. M'Dowel, the visiting physician, gave evidence as to the injuries inflicted on Lenehan. The defence was that there was a struggle, and that both the attendant and the patient fell, the latter injuring himself by falling against a chair. It was admitted that Gaffney struck the patient with his hand because the latter did not sit down when told to do so. The majority of the magistrates decided to send Gaffney to jail for two months, the maximum penalty.

It is hardly necessary to comment on this delightful story, and we feel that we could not do justice to it. One pleasant feature is apparent, and one pleasant inference is to be drawn. The first is that the Inspectors in the performance of their duty have for once succeeded in securing the co-operation of the Government. The inference is that the Irish Members, who distrust local control of lunatics, are right after all and know their country. They too are to be congratulated on their courage—but *quo usque, Domine?*

Laboratory of the Scottish Asylums.

The fourth Annual Report of this important and valuable Institution gives evidence of the good work being done by it, and also of the promise of future activity.

The pathologist, in his brief sketch of possible research, gives satisfactory prominence to the toxic elements in the causation of insanity, and the importance and advantage of their investigation, an evidence that he is well abreast of current medical thought and will devote his energies into practical and up to date work.

The educational usefulness of the Laboratory is, however, less known to our readers than its completed work, with which they are already familiar. During the past year four assistant medical officers of Scottish asylums have been given a laboratory course; the library and demonstration sets have been largely utilised; while two assistant medical officers and three other medical men are at present carrying out researches. This side of usefulness is undoubtedly of the very greatest importance, and the liberal recognition of this by the Executive Committee is shown in their extending this advantage to three medical men unconnected with Asylums.

The Report of the General Board records that five district asylums and one private asylum have not yet joined in the good work. All interested in Scottish lunacy will devoutly hope that the appeal of the Board to these asylums will be successful.

The balance-sheet tells of a total expenditure of £617; it is almost incredible that so much good work can be done for so little outlay. Visions are suggested by this of the possibilities that exist for the employment in a similar way of a small percentage of the huge profits of some of the public hospitals in England.

Even in Scotland it may be questioned whether a much larger proportion of the money at present devoted to structural embellishments and improvement might not be devoted to this end. Insane patients would probably prefer being cured in a comparatively non-palatial structure, to enjoying the advantages of a sumptuous hall or magnificent chapel for the rest of their lives. Such an institution as the Laboratory certainly tends to assist the former and prevent the latter alternative.

The development of the Laboratory by very considerable additions to its funds is very desirable, and the practical wisdom which has hitherto guided the treatment of insanity in Scotland will no doubt lead to their being rapidly augmented.

Psychology—Normal and Morbid.

We are well pleased to be able to state that Dr. Mercier's forthcoming work is now in the hands of the printers. It has been an open secret that his work for some years past has been nearing completion, and that it has at length assumed definite shape. The germ of Dr. Mercier's thesis has been already made known to us in his earlier writings, and now he is to produce the results of his matured thought and experience. The book is primarily intended as an introduction to the study of insanity, and under the title of *Psychology, Normal and Morbid*, it will constitute a general survey of mental processes with special reference to their bearing upon *Conduct*. The processes of reasoning, usually omitted from psychological works, are dealt with in considerable detail, this part of the book being practically a New Logic. Belief, with its morbid variant, Delusion; Truth; the theory of Probability which is extended from the domain of psychology; Will and Desire, in their normal and morbid manifestations; the significance of Pleasure and Pain; and the obscure region of Self-Consciousness are all dealt with from a new point of view, which permits of new conclusions being reached. Dr. Mercier's reputation as a psychologist drew a very large audience to the Royal Institution in May, when he delivered a lecture on Memory. No doubt that is promise of a still larger circle of readers intent to learn and to debate what is soon to be set forth in the systematic style above indicated.

The Treatment of Criminals.

We have reprinted an address lately given to the Society of Comparative Legislation by Mr. Crackenthorpe, K.C., convinced that it will be of interest to our readers. The Lord Chief

Justice stated that he noted a great change as to ideas as to prison treatment during the last few years, and never was the readiness to seek light from all quarters more marked than at present. It is remarkable that the discussion did not deal with responsibility and insanity, a question so often raised in connection with the treatment of criminals. The time is at hand when the present rule must be changed; the inequalities in administration resulting from the judge's answer in the McNaughten case are yearly becoming less marked, and should be swept aside by an authoratative reconsideration of the law in the light of later knowledge.

Assault on a Lunacy Commissioner.

The serious assault on Mr. Urmson, the Commissioner in Lunacy (from the effects of which we hope he has now thoroughly recovered), draws attention again to the dangers which beset those engaged in the supervision of the insane. The casualty list amongst medical superintendents quite recently has included our President-elect Dr. Wiglesworth, Dr. Moody, and many other well-known specialists; and in addition numerous attempts or hair-breadth escapes have passed without notice or record: they are in the day's work and nothing has been said of them.

The dangers thus incurred are borne willingly as a necessary price paid for the advantages in treatment in freeing the patients from restraint, and little is said of such occurrences from fear that they might be used as an argument by retrogressives; yet it is to be desired that some unobtrusive record could be made of these casualties for reference when questions arise of pay and pensions.

A certain amount of danger is unavoidable, but it is a point worthy of consideration whether the special risk which the Commissioners incur on counting the patients at their asylum inspections is not both avoidable and unnecessary. The Commissioner thus engaged has his attention largely occupied, and in this state is exposed to every lunatic who has a hatred of the authority that detains him or is liable to entertain delusions against a man who is apparently making notes against him in a book.

The sympathy so widely felt for Mr. Urmson, however, needed no enhancement from the fact that his injury was incurred under such conditions, and if his injury leads to saving the Commission from exposure to similar danger in the future we may congratulate him both on his recovery and on his not having suffered in vain.

Stone Asylum.

The City of London Asylum at Stone has recently had very important additions and alterations, testifying at once to the liberality and enlightenment of the City Corporation.

A very handsome detached chapel, a new female hospital, a fine recreation hall, a laundry block, new baths, laboratory, mortuary, electric lighting, etc., have been provided, involving a total outlay of sixty-eight thousand pounds.

The formal dedication of the chapel by the Bishop of Rochester, on the occasion of an official visit by the Lord Mayor and Members of the Corporation, was attended by a great number of members of this Association. The inspection of the new buildings and the speeches at the luncheon afterwards should be the means of still further enlisting the interest of the Corporation in the care of the insane. Dr. White is to be congratulated on having charge of such an admirably organised institution as the present Stone Asylum.

Lunacy (England) Bill.

The Lunacy Bill, of which mention was made at the opening of the Parliamentary session, had not been brought before the House of Lords by the third week of June. Doubt may therefore be entertained whether it will really be produced this year.

If this hardy perennial has not blossomed so late in the season, even in the favouring warmth of the upper conservatory, it can scarcely be expected to be passed to the cooler temperature of the lower house with any expectation of producing fruit.

Lunacy (Ireland) Bill, 1901.

Lord Ashbourne, Lord Chancellor of Ireland, has introduced a bill, which has passed its third reading in the House of Lords, with a view to amending the Irish Lunacy Laws by applying to Ireland certain provisions which have been in operation in England for some years. The bill provides that the Lord Lieutenant may have the power of discharging criminal lunatics conditionally, and may be able, in case the conditions are broken or the discharge is otherwise revoked, to again order by warrant the detention of the criminal lunatic.

"Sections three hundred and twenty-two (which relates to ill-treatment of lunatics) and three hundred and twenty-four (which relates to abuse of female lunatics) of the Lunacy Act, 1890, shall apply to Ireland, and the said section three hundred and twenty-two as so applied shall extend to striking, and shall include any person employed in the care of a single patient or of a lunatic in a workhouse." These are excellent provisions, and many recent and remarkable examples show how urgently they have been needed in Ireland.

We hope that the machinery for prosecution in cases of cruelty or criminal assault is already provided in Ireland. Section 325 of the English Act of 1890 makes special provision for this, but that clause does not appear to be extended to Ireland.

The protection of female lunatics, however, will remain imperfect in one respect in Ireland as it is in England. While all the unsound of mind are protected from the employés of asylums under the Act of 1890, only idiots and imbeciles are protected from persons not employed in asylums, because "idiots and imbeciles" are the individuals mentioned in "Stead's Act." The term "idiots and imbeciles" is capable of a very narrow interpretation. This was shown a few years since in a case which occurred in Ireland. In a certain asylum two criminal assaults on female patients occurred within a short time, one committed by a workman of the asylum, one by a stranger who had managed to obtain access to the asylum grounds, solely with criminal intent. Both were tried under Stead's Act. One was found guilty, the patient assaulted being an idiot. In the other case, tried before Mr. Justice

Gibson, the learned judge directed an acquittal, on the ground that the patient of whom advantage had been taken was a secondary dement and not a congenital case, Stead's Act from its wording being held only to apply to the latter. The framers of Stead's Act probably did not intend this, and there is no reason why the secondary dement, and indeed every other lunatic, should not have the full benefit of this enactment.

Lord Ashbourne's bill further provides that the sixteenth section of the Act 38 and 39 Vict., cap. 67, shall be extended to include persons committed to asylums under the Act 30 and 31 Vict., cap. 118. In other words, the property of this class (known to the Irish law as "dangerous lunatics" and forming the greater number of the admissions to public asylums in Ireland) can, when this bill becomes an Act, be rendered available for their support.

Notes and Queries.

Sense of Smell in Nietzsche.

THE sense of smell is so closely related to the sexual instinct in a large number of animals, that there has long been thought to be a direct relation between them, and the relation of defect of smell and of sexual power in general paralytics was investigated many years ago without success. It may be doubted, therefore, that Nietzsche's acute sense of smell is, as Dr. Watson suggests, a reversion to a lower type; if it were so it should be rather accompanied by enhanced sexual instinct. The conclusion is that it was entirely pathological—a morbid sensory irritability, cultivated and exaggerated by habit.

Recovery.

Is it possible to arrive at a general understanding as to what constitutes *recovery* on the discharge of a patient from asylum care? A recurrent case may *recover*, yet there is every probability of relapse sooner or later. An acute case may *recover* sufficiently to take his place in the world, yet some indelible trace of his disorder may remain. A patient may be reported as having *recovered* after removal from the asylum, while he remains on the register, yet there may be doubts as to the value of such a report.

What constitutes a *recurrent case?* Should the term be used

on the second attack, or should it be reserved for the third and subsequent attacks? Or, in a case of *circular insanity*, at what point of the malady is the patient to be so classified?

Reviews.

The Report of the Commissioners of Prisons (England) 1900, with special reference to the working of the Prisons Act, 1898.

The very general use of expressions such as the fitness of things, the survival of the fittest, a perfect fit, a fitting reason and the like, raises the presumption that fitness is that which we now strain after in especial. Fitting correctly punishment to crime, then, if the thing to try to do, is yet presumably difficult, assuming that such a statement as the following by Sir H. S. Maine is to be accepted unreservedly: "It is always easy to say that a man is guilty of manslaughter, larceny or bigamy, but it is often most difficult to pronounce what extent of moral guilt he has incurred, and consequently what measure of punishment he has deserved. There is hardly any perplexity in casuistry or in the analysis of motive which we may not be called upon to confront, if we attempt to settle such a point with precision."(1)

Nor is the difficulty lessened if we recognise the force of the arguments used by Mr. H. Ellis in his chapter on the treatment of criminals(2), in which he quotes with approval two such different authorities, as Reinach saying in *Les Récidivistes*, "Imprisonment, especially if short, is an excitation to crime;" and the words of Prins the Inspector-General of Belgian Prisons, "What is the advantage, unless the necessity is absolute, of putting into prison the head of a family, etc.?"(3).

In fitting punishment to crime we are, therefore, met with two initial difficulties—(*a*) the form of the punishment to be inflicted, due regard being paid to the kind of criminal and the nature of the crime; and (*b*) its quantum, by reason of his imputability and susceptibility. There is not one common antidote for all poisons, nor is the same medicine given in similar doses to every patient. Why, then, should all offenders be either fined or imprisoned, and all who, for example, steal £5, be (broadly speaking) treated to a like amount of punishment?

As an aid to appreciate the advantage of appropriate punishment, that is, of retributive treatment, as being the form modern society's dealing with a recalcitrant member should rather take, a few preliminary observations upon the history of punishment and the right to punish, as well as upon its proper aims and objects, may here, perhaps, be not out of place.

The origin of punishment is often attributed to the reflex action of the individual injured, which in the case of a person struck prompts

him to strike back (4), with a force to some degree proportionate to the impression the blow just received has made upon himself. Some evidence of the truth of this view is seen in the circumstance, that, when the duty of punishing passed to the head of the family as part of the *patria protestas*, he adopted much the same principle as did the Sovereign power upon which it devolved in the next stage, which latter authority, even in the highly developed instance of Roman law, always permitted the offended person to strike back the offender with a harder blow when caught red-handed, than after the sting of the original outrage, through the action of time, ought to have gone off.(5) A similar principle is still recognised with us in provocation being permited to reduce murder to manslaughter in aggravated cases, and in penal science this is now usually expressed by the formula that the punishment meted out in each case should be proportionate to the offence committed, and also since we look further ahead in this regard to the circumstances of the offender.(6) Thus a poor man should not be fined as heavily for a similar theft as should a rich one, (*a*) because the punishment would not be equal in the two cases, and (*b*) because the temptation to steal was inferentially greater to the first than to the second offender. Another great rule, namely that punishment should be personal, that is should strike the wrong-doer only, and not like an angry blind man swinging a club others as well, is of later origin. In olden days the community to which he belonged was equally liable with the actual offender for *wehrgeld fredum* or *bannum*, and if he could not be found some relative was wont to be punished in his place; the root idea being that the tribe must not be allowed to suffer, and that the injured member should at all hazards be compensated. The same thing is done now-a-days. Not that a substitute is accepted for the offender who shall be permitted to suffer for him vicariously, but his family is too frequently reduced to misery along with him, as the necessary result of his punishment. Prins, to continue the quotation given above, says, "What is the advantage, unless the necessity is absolute, of putting into prison the head of a family to devote him to infamy, to compromise him in the eyes of his fellow workmen, of his wife and of his children? Is this not to condemn these latter to abandonment, misery and mendicity?"(7)

Among the difficulties, then, that arise in making punishment proportional, are that in so doing we shall probably be effecting in it too great a similarity to the *Lex Talionis*, and in making it strictly personal, we shall be freeing the offender from what he ought to suffer, in order to save the family from misery. As the right to punish springs from the impossibility of society going on without its proper exercise, and not from any obligation on our part to make the offender expiate his crime for any reason, nor yet to show our abhorrence of his act by making him a moral scarecrow, so its primary object should be reparation to the injured party (8) combined with reformation of the offender, rather than retribution or even prevention of apprehended crime on the part of other evil-doers. About the sixteenth century the idea of punishment got itself crystallised into that of public vengeance and public utility conjoined. To make an example was at that period the main object

of the criminal law, and therefore torture and all sorts of other methods were resorted to, that admissions of guilt might be freely obtained. Thus the *Défense Sociale* became so arbitrary in its methods that Beccaria, Kant, Voltaire, Bentham, and Romilly rose in their wrath against it, almost at the same period, a century and more ago. The pendulum then swung into the opposite direction, and free trial by jury became the order of the day. Whereupon the idea grew up that ten criminals had better get off, than one innocent man be wrongly condemned. With regard to punishment, Kant put an end to the doctrine which had been unreservedly accepted for so long, that its application merely depended upon public utility, and not upon principles of abstract justice as well. After him De Broglie and Rossi clearly showed that if the root idea of punishment was justice, so that it could only be exercised in cases of violation of the moral law, yet that its measure depended upon contemporary social requirements. The double principle of punishment was now for the first time fully recognised, that not only should a firm attempt be made to reform by its means the criminal himself, but also to repress the manifestation of crime by others. Soon, however, the principle of utility got the upper hand again with penal scientists, as these mixed methods failed to stop recidivism, and thus *La défense Sociale* became the chief and almost only object of the modern Positivist school. To carry this out society has to be made to believe that the criminal is a wild beast, who kills because he has an atavistic instinct to kill, and the chief question is not his guilt, because he is practically held to be irresponsible for his acts, but the measure of his danger to society, and not his blameworthiness, as is the main doctrine of Spiritualists. With the Positivists, then, the question of the appropriateness of retributive treatment does not arise. All that is before them is what is best for the State, of which they fail to remember that offenders are an undivided fact. Some Positivists think them curable, others not, but most of them consider criminals as the fated victims of atavism, and a return to the savagery of ancestors. This is not true, because criminality is not so wholly repugnant to the ideas of men as it would be if it were the case, and also because much of what is now held to be crime, has always been considered as such(?) in the past. Directly the individual, and not the family or tribe became the unit, the life of the individual got itself respected, and to kill him was punishable. In early days men were not anarchical in the modern sense of the term, nor was man then upon the whole more criminal than now. And so atavism cannot be pleaded as an excuse for lack of self-control. In the same way it may be shown that crime is not madness, nor wholly even due to defectiveness, but that a vast proportion of criminals are normal beings, who have taken to crime as a profession, and it is with such as these that we are chiefly concerned in the application of appropriate punishment. For defectives of all sorts have to be treated rather with a view to their infirmity, than to their quantum of imputability, if any.

Appreciation of what was then conceived to be the appropriateness of punishment is to be seen in the burning of heretics by the Church in early days ; the idea being that such a form of punishment was the only one by means of which effective purification would take place.

Another example of the same attempt to fit punishment to crime, is to be seen in the old law of Béarn with reference to forgery. The forger had the forged instrument affixed to his head with tintacks, and was in that condition marched round the town, and subsequently expelled. The adulterer, too, was hustled through the streets in a state of nudity, and likewise expelled from the scene of his iniquity. Bentham had a similar idea in mind, when he proposed the punishment of perforating the tongue and affixing to it a huge pen, in the case of those who had been guilty of a serious crime of deceit and false representation. Not so long ago in Denmark, infanticide and bad cases of concealment of birth were punished with imprisonment and a whipping once a year, on the day the offence was committed. In yet older times, the punishment in Egypt for the same offence was, having to hold in the arms the dead child for three days ([10]), the idea of which seems somewhat similar to the cutting off in certain cases of the offending member.([11]) As Tarde well says, "In this way the authority attempts to oppose to such manifestations of crime as it dreads, obstacles of a kind similar to that which is their cause.([12]) That our present methods are not satisfactory the statistics of most countries clearly show. Garofalo says that the worst class of crime has made great progress throughout([13]) civilised Europe during the past fifty years. In France, in 1891, there were([14]) 95,213 recidivists, and but 508,255 offences in all reported by the police. In 1889, out of a total of 13,075 convictions for serious offences, 11·6 per cent. were of recidivists.([15]) With us, in the last report, it seems that 107,724 men and 48,118 women went to gaol, of whom 48,699 men and 11,999 women had been there before.([16]) On the other hand, a parliamentary paper recently issued([17]) shows that in the Metropolitan district, out of 2,820 prisoners released, and so not sent to prison at all under the provision of the Probation of First Offenders' Act, 1887, the number of reconvictions was only 290. In Lancashire the figures are respectively 3,741 and 372; in the West Riding of Yorkshire 961 and 132; in Staffordshire 658 and 81; and in Durham 579 and 98. From these figures, if only approximately correct, it is a fair inference that other methods rather than prison ones have in our case proved the more satisfactory. The compilers of the French statistics likewise speak of the good effect of *La loi du 26 Mars*, 1891, *sur le sursis conditionnel, dont l'habile et salutaire clémence rend la menace de l'emprisonment plus efficace bien souvent que son execution*([18]), the result of which has been not only to reduce the number of recidivists but of first offenders, the latter from 126,857 in 1894, to 115,085 in 1897. The *sursis à la relégation* also seems to have worked well, as even in 1890 it is spoken of in M. Herbette's *Code Pénitentiare* as *La mesure si utile de sursis.*([19])

So, too, most humane persons would think who read the life history of prisoners like the following. B—, 55 years, fifty-four convictions of, in all, 168 months' imprisonment, besides the time spent in gaol awaiting trial. Two convictions having been for theft, he was sentenced to transportation. Being very ill when sentenced he was not transported, and died shortly afterwards. Or that of C—, 57 years, a violent prisoner, who soon after the age of sixteen was convicted many times of outrages on the police and similar offences. At twenty-four he began to steal. After this he was

frequently imprisoned for poaching, drunkenness, vagabondage, and assaulting the police. He has been convicted sixty-six times, and undergone fifteen years of prison, and five of transportation.(20) What then but harm can their penal treatment have done these individuals?

May not the true position of the State towards the offender be thus summarised? In dealing with him, not only he, but those dependent upon him as well as the offended person, the public, and those likely to offend in a similar way, have to be kept in view. His treatment should take a form likely to prove, if not beneficial, at least not harmful, to him or his wife and children, beneficial, if possible, to the injured person, and a useful object lesson to other probable offenders. The treatment adopted, at least with reference to him and his congeners' future conduct, should be prophylactic, and not simply therapeutic, and the position be further improved all round by enforced better hygienic surroundings. Its necessary characteristics are that the remedial agency employed be as personal, proportionate, quick, certain, just, and humane as may be. What exact form it takes should be made to depend upon the class of offender to be treated, and the nature of his offence. For example, whether he be a professional offender or not. His age, his temptation, his motive, and general circumstances too will have to be considered. The nature of the offence, that is, whether a crime of violence or deceit, aggravated or simple, or merely venial as a contravention of some municipal law, necessarily goes far to determine the form of the retribution to be demanded of the offender. One great thing to strive after is appropriateness; that is, that the proper class and degree of retributive treatment be dealt out in each case. Fine, imprisonment, work in a penal colony, work in a disciplinary regiment or ship, exile and loss of station, are among the forms of practicable punishment. A crime of violence should be treated more sternly than one of deceit, because the class of offender who does such things is probably of a rougher and harder character, temperament, and type than the mean thief, who is gentle if cunning, timid if resourceful. The professional criminal should be interned, when he has shown himself unmistakeably to be such, for the term of his natural life.(21) No one should ever be sent to prison except as a last resource, and plenty of time must always be given for the payment of fines. Offenders when fined ought always to be fined according to their means of paying. A man, especially if married, will not, as a rule, run away to escape a fine which is not grossly exorbitant. The fines should go mainly to the parties injured and not to the State. It is more fitting that the injured should get reparation than that the fisc should gain by the commission of crime. A fine or a few days' imprisonment is no appropriate manner of dealing with a drunkard, who ought to be made to work in an inebriates' home.

Few realise, and yet it is certainly true, if drunkards were dealt with thus, and time given for the payment of fines, that our criminal population would be decreased by about one third. When all youths fit for the army and navy are compulsorily enlisted, our prison population will be considerably further lessened. Penal colonies can be made more healthy and beneficial in their action than prisons, especially prisons in towns, which should be kept for incurables who are unfit to

work on the land. Let the renegade by all means continue in scarceness. It is fitting that he should not be comfortable, until he has made reparation. But let his discomfort be such as he is able to bear, and his treatment likewise tolerable and moralising in its character. Let all who know what it is be struck by its reasonableness and unerring precision, which will depreciate the force of crime as a competitor in the labour market. Then, when the miserable who require State aiding are eliminated from the list of offenders, it will be reduced chiefly to those who slip but occasionally from the proper course, and for these a happy issue from the result of their mistaken conduct may be often confidently expected, if they be but appropriately taken in charge by an offended but discriminating Society, in which their rights and privileges are held to be but temporarily suspended. In this way the appropriate measure of punishment will be dealt out to the various classes, who have shown themselves unable to adapt themselves to their environment sufficiently to avoid grossly outraging the moral law.

Such measure is more difficult to ascertain than the measure of damage in civil matters, because more complex, affecting as it does so many difficult interests. It has nothing to do with Mr. Crackanthorpe's Standardisation of Punishment, nor is it like Sir E. Fry's somewhat Mosaic methods, nor again does it group all offenders alike in a moral hospital, suitable perhaps for some, or the perchance too academic groves of an American Elmira. It tries to differentiate and to deal appropriately with each class thus differentiated, so as in this way to arrive at the fitting measure of retributive justice due in each case to the offender, the offended individual, and Society alike. Have we not here more than is purposed to try to effect in most other systems of penal science at present in operation?

(1) *Early Institutions*, p. 380.—(2) *The Criminal*, chap. vi.—(3) *Criminalité et Repression*, ed. 1885.—(4) Whence came directly the *Lex talionis, talis*, similar, though Franck says it was never used by States, *Philosophie du Droit Pénal*, p. 83.—(5) Maine, *Ancient Law*, ed. 12, p. 378.—Franck, *Phil. du Droit Pénal*, ed. 2, p. 156, cf. The Idea of Prescription.—(6) Picot in *Journal des Savants*, 1900, p. 562, cf. *Tarde. Crim. Comp.* p. 146, as to the modern liability of an entire body of armed men for the deed of one of them.—(7) See, too, Franck, op. cit., p. 155.—(8) This principle is recognised in the *Code Pénitentiare*, and by Garofalo., *Crim.* p. 375.—(9) "Joly, Le Crime," reviewed by A. Franck, *Journal des Savants*, 1889, p. 580.—(10) Tarde, *Criminalité Comparée*, ed. 2, p. 133.—(11) Cf. the excuse for castration in the *Code Napoleon*, sect. 325.—(12) Tarde, op. cit., p. 131.—(13) *Criminologie*, p. 230.—(14) *Compte Général de la Justice Crim.*, p. 14.—(15) *Code Pénitentiare* for 1887, p. 58.—(16) *Prison Commissioners' Report*, 1900, p. 71.—(17) *Daily Chronicle*, 14th January, 1901.—(18) Page 14.—(19) *Code Pénit.* for 1899, p. 48.—(20) *Code Pénit.* vol. xiii, pp. 58 and 59.—(21) The object of the French Law of 27th May, 1885, was avowedly "*Expulsion du continent des malfacteurs d'habitude, c'est là le principe de la loi*," *Code Pén.* vol. xiii, p. 59, the idea being "*chaque méfait qui s'ajoute multiplie le coefficient moral de criminalité*," *Code Pén.*, vol. xiii, p. 410.

W. R. WHITEWAY.

The Pathological Statistics of Insanity. By FRANCIS O. SIMPSON, L.R.C.P., M.R.C.S. Baillière, Tindall and Cox, London, 1900, pp. 132 (including tables). Price 10*s.* 6*d.*

This work consists of—(1) A scheme for collecting the pathological statistics of the insane brain, which is comprehensive, and which might be followed with advantage. (2) Two chapters; the first dealing with the insane cranium and giving the changes observed in the various forms of insanity; the second concerned with the naked-eye changes found in the insane brain. The records are based on the observation of 398 cases (245 males, 153 females). We find a statement to the effect that progressive paralysis is much more prevalent, more speedily fatal, and of more insidious origin in the north of England than in the south. The author presumably speaks from his experience in Yorkshire and Hampshire (the latter largely an agricultural county). We have heard a general assertion to the same effect, and there may be sufficient grounds for it, but we should prefer definite evidence. Is the above statement true in respect of the West Riding asylums as compared with those of London? And how do the asylums further north, say of Durham and Northumberland (where mining districts are served), compare in this respect with those of the West Riding? Glamorganshire lies south-west, but we should be much surprised if inquiry showed progressive paralysis to be, in any of the respects mentioned, appreciably different there from the disease as seen in Yorkshire. (3) Successive tables are given, following the scheme, for both sexes, together and separately, stating in percentages the conditions found under the different headings, and these for all forms of insanity and for separate forms. Lastly, comparative tables are given on a like plan, stating the percentages for the different forms of insanity in parallel columns for easy comparison. These tables, representing much labour, are especially likely to be useful, and should recommend the work as one for reference to those interested in the subject dealt with.

Asylums on the Continent. Report of a Deputation of the Lancashire Asylums Board. (W. F. Jackson and Sons, Salford, 1900, pp. 71. Can be had from the Clerk to the Lancashire Asylums Board, Preston. Price 5*s.* and postage).

In view of additional asylum accommodation being required in Lancashire, the Asylum Board there appointed a deputation consisting of Alderman Jenkins, Vice-Chairman of the Board, Dr. Cassidy, and Dr. Wiglesworth, to visit some continental asylums, and submit recommendations regarding the form which the new accommodation should take. The present book is the report made by that deputation. Ten asylums in Germany and four in France were visited, as well as the Gheel Asylum and Lunatic Colony in Belgium. In each case a description is given of the architectural features, general plan, and arrangements of the asylum, and detailed information is added on a number of points connected with administration and management, par-

ticularly on initial cost per head of buildings and land, cost of maintenance, average number of escapes, occurrence of suicides or accidents, and supervision of epileptics at night. Of the German asylums visited six are arranged on the segregated or Villa-Colony plan, while all the French asylums were of the pavilion type. At Gheel, as is well known, there is a central establishment for sixty-five patients of the most acute class, while the other cases are boarded in ordinary houses in the village or district. The asylum at Alt-Scherbitz, as being the best known of the institutions built on the Villa-Colony system, receives detailed description; and Herzberge, the newest but one of the Berlin asylums, is also very fully described. The latter consists of an asylum proper or main portion, made up of detached pavilions, and of a Villa-Colony. A number of illustrations are included in the report, and give views of the general arrangement of the buildings in the different asylums, and plans of some of the villas and other details. The book thus contains much information of great interest and value to those concerned in asylum construction. In the closing chapter the members of the deputation give their general conclusions and recommendations. They propose that a new (sixth) asylum should be provided for Lancashire, that it should be entirely for epileptics and imbeciles, and that it should consist of villa buildings, containing each not more than fifty patients, and preferably only from twenty-five to forty patients. They are strongly in favour of the segregated system of construction. The main arguments they advance for that view may be stated as being (1) more home-like arrangement; (2) more individualised care of the patients; (3) no greater liability to accidents; (4) no increase in expense; (5) greater convenience in erection of the buildings and in making additions to them; and (6) more easy and efficient sanitation. This is not the place for entering on an examination of these arguments, or of the considerations which might be advanced in support of the opposite view. It appears, however, from the statistics of admissions and discharges, and from other points mentioned in the report, that in some respects the circumstances in the German asylums vary considerably from those of asylums in this country, and it will therefore become of great importauce to ascertain if the test of actual experience of the segregated system of asylum construction and administration which will soon be available in Scotland, and probably also in Lancashire, bears out the favourable anticipations of its supporters.

Diseases of the Thyroid Gland, Part I. Myxœdema and Cretinism. By GEORGE R. MURRAY, M.A., M.D., F.R.C.P. London: H. K. Lewis, 1900. Royal 8vo, pp. 108. Price 7*s.* 6*d.*

In this very readable volume on myxœdema and cretinism Dr. Murray has incorporated portions of his Goulstonian Lectures of 1899, on the "Pathology of the Thyroid Gland," and part of his article on the "Diseases of the Thyroid Gland," in vol. iv of the *Twentieth Century Practice of Medicine.* The second volume is to deal with goitre and other thyroidal diseases.

In the first chapter the author gives a description of the anatomy and physiology of the gland and of the effects of thyroidectomy. The account of the chemistry of the thyroid might, with advantage, have been more complete in a work of this kind. The author, however, gives a most interesting account of his own experiments on thyroidectomy in monkeys and in rabbits, and of the after-treatment of the former with thyroid extract. Dr. Murray agrees with the French and Italian observers who attribute the acute nervous symptoms which sometimes follow thyroidectomy to the simultaneous removal of the parathyroids, one of his reasons being that administration of thyroid extract does not relieve or prevent these acute symptoms, whereas it will prevent or cure any myxœdemic symptoms which may arise. However, that parathyroidectomy is the sole explanation of the neurotic symptoms may be doubted, for certain German observers assert that the parathyroids may be removed without ill effects; and again, Welsh, in this country, was unable to relieve the symptoms in cats by administration of parathyroid tissue.

The second chapter is devoted to myxœdema, and is an admirable description of the disease. Dr. Murray nearly always speaks of the disease as consisting of a fibrosis of the thyroid gland with atrophy of its epithelium, but as he is unable to tell whether the fibrosis or the atrophy is the primary process, and as he inclines to the view that "the atrophy of the glandular tissue takes place primarily," and that "the fibrosis is only a replacement fibrosis" (p. 58), it would seem more correct to speak of the disease as consisting in a thyroidal atrophy with fibrosis rather than as a thyroidal fibrosis with atrophy, and this would more effectually accentuate *the* fact of myxœdema which, of course, Dr. Murray duly emphasises, namely, that its immediate and essential cause is deficiency of thyroid secretion.

The third chapter deals with cretinism, which the author denotes as "myxœdema arising in infancy or childhood before the age of fifteen."

The volume is illustrated with numerous photographs, contains full directions for the thyroid treatment of myxœdema and cretinism, and altogether forms a valuable memoir of the most marvellous discovery in recent medicine, and one in which the author has taken so worthy a place.

Diagnostic et traitement des maladies nerveuses. Par JOANNY ROUX. Paris: Librairie J. B. Baillière et Fils. 1901. Pp. 553. Pr. 7f. 50.

Within the compass of a small volume Dr. J. Roux has succeeded in presenting a clear and succinct account of our knowledge of nervous diseases, and classifying the signs and symptoms upon which we base our diagnosis of these affections. The results of recent researches on combined scleroses, on the peripheral distribution of spinal roots, on spinal metamers, etc., have been included, so that the work is up to date. To the student, the general practitioner, and even to the specialist it should prove useful and often invaluable in obscure cases. A number of diagrams serve to elucidate such complicated questions

as the localisation of the centres for visual perception, of the cortical centres for oculo-motor innervation, the localisation of speech-centres, etc., and there are also explanatory notes dealing with points in nervous pathology, which are controversial or still *sub judice*.

In a few brief pithy words the author also sums up the indications for treatment under the heading of each disease.

Aide-Mémoire de Neurologie. Par le Prof. PAUL LEFERT. Paris: Librairie J. B. Baillière et Fils. 1900. Pp. 274. Pr. 3 fcs.

This is a small note-book on nervous diseases, giving in brief the leading symptoms which characterise them; and laying stress more particularly on those diseases which are commonly met with in practice. Should prove useful to the student before an examination.

A Text-book of Pathology in Relation to Mental Diseases. By W. FORD ROBERTSON, M.D., Pathologist to the Scottish Asylums; formerly Pathologist to the Royal Edinburgh Asylum. Edinburgh: W. F. Clay, 1900. Pp. xvi, 380.

Few are better equipped for making a general review of the pathology of insanity than the Pathologist to the Scottish Asylums, who has produced a book which will be indispensable for some time to come, not only to the neurologist, but to the general pathologist. It embodies not alone the results of his own original work, naturally the most interesting, and to a specialist the most important, part of the book, but also a critical digest of the literature of the subject up to date, in which, however, if we were inclined to be carping, we might possibly object that the authorities quoted are sometimes treated as of too equal value.

After a short introductory chapter, which contains some sensible remarks on the futility of attempting any elaborate classification of mental diseases in the present state of our knowledge of their ætiology and pathology, the author goes on to deal in Chapter II with methods of pathological investigation. In doing so he rightly restricts himself to those which he has personally found of greatest utility, instead of wasting space in describing a number of the countless processes now more or less in use. Several of those included have been devised by himself, such as the method of superficial horizontal sections; the methyl-violet method for nerve-cells, which when successful certainly gives beautiful results; and the platinum-deposition method, the capabilities of which have not yet been fully worked out, though it has already done good service in his hands, as shown later in the book.

In the next chapter, after a short account of the morbid conditions of the scalp, the pathology of hæmatoma auris is discussed at length. The author has given much attention to this subject, and we think has succeeded in proving, once for all, that the lesion is primarily due to degenerative changes in the cartilage of the ear leading to the forma-

tion of cysts. These changes, though not uncommon in the sane, are especially well marked in sufferers from certain forms of mental disease, and are always liable to form the starting-point for hæmatoma from rupture of newly-formed capillaries in the cyst-walls, rupture which need not necessarily be of traumatic origin.

Morbid conditions of the skull are next described, and a working scheme is framed for craniometric research in asylums, in making which the use of "Hepburn's craniometer" is strongly recommended. Later on the subject of microcephaly and other forms of cranial abnormality are discussed, including deformities of the palate, as to which latter the author does not consider a decided opinion yet attainable. Thickening of the skull he considers very common in chronic insanity, having found it in 51·5 per cent. of all cases. Osteosclerosis he met with most frequently in general paralysis, in which it was almost constant.

The next two chapters, which are among the most valuable in the book, deal with the morbid conditions of the meninges, and contain much excellent original work. Dr. Robertson lays great stress on the physiological and pathological importance of the dural perivascular channels, which he believes, with Obersteiner, to open into the cranial veins, and hence to form "one of the channels by which the cerebrospinal fluid is carried into the general circulation." The greater part of this Chapter (V) is occupied with the discussion of subdural membranes, to which the author has given much attention. He considers that, while some such membranes are simply the result of a hæmorrhage into the subdural space, often from vessels not belonging to the dura, the true dural false membranes, which are so specially common in the insane, arise from a process which, commencing with proliferative changes in the perivascular channels and walls of the dural vessels, goes on to obstruction of the latter, followed by the development of new capillaries. Both these and the older vessels undergo fatty degeneration and rupture readily, and thus the membrane is formed from a clot which, ultimately becoming organised, develops capillaries liable to rupture in their turn.

Batty Tuke's views of the normal structure of the pia-arachnoid are accepted and worked out thoroughly, and the author goes on to describe the morbid changes in this structure. He found that the "milkiness" so often met with in chronic insanity is due to "proliferation and degeneration of the endothelial cells of the trabeculæ and outer surface," with "slow hyperplasia of the fibrous tissues," and that the morbid adhesion of the membrane to the cortex is the result chiefly of connective-tissue hyperplasia in the adventitia of the vessels, though assisted by increase in the number and strength of the glia-fibres.

A most interesting account, enriched with original observations, of the normal structure and pathological changes in the cerebral vessels follows, the author expressing the opinion that from this point of view mental diseases may be divided into three categories, viz. those in which the vessels play no part; those in which vascular changes, though secondary, have "considerable influence in preventing or retarding recovery;" and those directly due to vascular disease. He then goes on in Chapter VIII to deal with the neuroglia, and in so doing makes one of the most

important of the recent contributions to our knowledge of the subject. Working with his own platinum method, he was able to demonstrate that the glia-cells are of two classes. The first of these are the ordinary large neuroglia-cells of epiblastic origin, regarding which it may be noted that the author, on the ground of his own observations, refuses to accept Weigert's views as to their structure, considering that "the fibres remain in anatomical and physiological union with the cell-body;" and he also rejects Bevan Lewis's theory of their function. The second class consists of small cells with short branching processes ending free, which react to staining and to irritants in a different manner to the larger cells. Taking these observations in connection with those of Capobianco and Fragnito on the part played by the mesoblast in the formation of the neuroglia, the author concludes that these are the cells of mesoblastic origin, proposing to distinguish them by the name of "mesoglia cells;" a conclusion which, however probable, will require confirmation, though of the existence of the two varieties of cell there is no doubt.

A long and valuable chapter on the nerve-cell follows, which is practically a recast of the author's "Critical Digest," published in 'Brain' some time back, and gives the state of knowledge of the subject up to date. We may note that, with regard to the observations of Apáthy and others, Dr. Robertson's conclusion is that "no discovery that has yet been made really weakens the case for the neuron theory."

With this chapter concludes the larger and more valuable part of the book. It is followed by a short account of the morbid variations in the physical properties of the brain, and then by a long discussion of the physics of the intra-cranial circulation and lymphatic system, in which, chiefly on theoretical grounds connected with the part assigned by the author to the dural perivascular channels in the removal of cerebro-spinal fluid, the views of Hill are severely criticised, and the the Monro-Kellie doctrine rejected. Although some of the arguments advanced by Dr. Robertson are open to objection, it would occupy too much space to criticise them in detail, and in any case we think that with so intricate a problem it is somewhat futile to attempt a solution on theoretical grounds. It may be said, however, that although the author's arguments will assuredly demand attention in any future consideration of the question, and although the theories of Hill will in all probability have to be modified, especially in the light of such researches as that of Cavazzani, we hardly think that Dr. Robertson's views are likely to be generally accepted in their entirety.

After shortly discussing the congenital abnormalities and focal lesions of the brain, Dr. Robertson goes on to give a brief account of the pathology of some of the more important clinical types of mental disease, already partially dealt with under other heads. He strongly emphasises the importance of "the toxic basis of insanity" of all forms, though he admits that it is, in its general form, merely a fairly probable hypothesis. As regards the pathology of general paralysis, he adopts, in opposition to Mott, the view of Angiolella that the vessels form the first point of incidence of the disease. This clinical section is rather short, being compressed into a single chapter; and although

Dr. Robertson was probably right to expedite the publication of his book by condensation of this part and omission of two chapters which were in the original programme (those namely on special parts of the nervous system, and on special organs or tissues), we hope to see the condensation extended and the omissions supplied in the next edition, which no doubt will shortly be called for.

The book is well printed, and the abundant illustrations, most of which are in colours, are in general admirable, and greatly enhance the value of the work. W. DAWSON.

The Psychological Index. Compiled by HOWARD C. WARREN, with the co-operation of J. LARGUIER DES BANCELS, G. V. N. DEARBORN, and LEO HIRSCHLAFF. New York: Macmillan. London: Stechert, 1901. Pp. 179, large 8vo. Price 75 cents.

The *Psychological Review's* annual bibliography (1900) has, as usual, been issued with remarkable promptitude, and all credit is due to Dr. Warren, of Princeton University, and his collaborators. This seventh issue differs little in arrangement from that issued last year. There are 2,627 entries—a slight increase on the previous total. A further attempt has been made to improve the classificatory grouping, which is now under nine main heads, with many subdivisions. It would seem that every classification is open to some objection, but while that adopted in the present issue still renders it sometimes necessary, as before, to search for the same subject under more than one heading, investigation of the table of contents makes the path fairly clear. The Index is remarkably complete and accurate, and is certainly indispensable to the worker in every branch of psychology, normal or abnormal.

HAVELOCK ELLIS.

Leitfaden der Physiologischen Psychologie. By Prof. TH. ZIEHEN. Fifth edition. Jena, Fischer, pp. 267, 8vo.

We have repeatedly called attention to this clear, thorough, and concise text-book of physiological psychology, written by an eminent alienist on the lines of the English associational school. The new edition has been revised, and a few illustrations added, although the total increase of matter only amounts to about four pages. It may be interesting to note that Prof. Ziehen has lately left Jena, to take up professorial duties at Utrecht.

Psychologische Arbeiten. Vol. III, Parts 2 and 3. Leipzig: Engelmann, 1900.

In these two parts Professor Kraepelin and the able workers he has gathered around him continue their experimental work along the lines they have now rendered familiar. Thus Ach deals with the influence of certain drugs on attention, etc., as tested by the method of reading

nonsense-syllables, etc. The drugs selected were alcohol, paraldehyde, bromide, and caffeine. The general result was that alcohol and paraldehyde showed a paralysing influence on attention; that caffeine had a distinctly favourable influence, though only to a slight degree; and that bromide had no effect one way or the other. There was, however, a distinct difference between the action of alcohol and that of paraldehyde; the disturbing influence of the alcohol was gradual and prolonged; that of the paraldehyde was sudden and well-marked, disappearing rapidly. The favourable influence of caffeine appeared in from fifteen to twenty minutes, and lasted at least an hour and a half. Ach remarks that his results indicate that paraldehyde is much less injurious than alcohol or trional, and that it is a suitable hypnotic in cases in which sleeplessness is due to a difficulty in falling asleep, *i.e.*, to cases in which only the first stage of sleep is affected. Bromide is not properly a hypnotic at all, its influence being due to its soothing action on conditions of excitement accompanied by feelings of discomfort.

Adolf Gross deals with simple psychic reaction in three epileptics. The results were varied and by no means easy to explain. In all there was a tendency to slowing of reaction time, but there were certain inexplicable anomalies between different classes of reaction. Like other similar pioneering experiments these results await further work for their eludication.

The influence of acute alcoholic intoxication, whether due to small or large doses, on mental processes has often been studied by Kraepelin and others. Kraepelin and Kurz have now sought to investigate the persisting influence of slight chronic alcohol intoxication. It was necessary, of course, to exercise prolonged and considerable care in carrying out these experiments; complete abstinence from alcohol during long periods was necessary, and it was also necessary that a perfectly regular and uniform life should be led during these periods. The daily dose of alcohol decided on was 80 g. (equivalent to two litres of beer), and it was taken before going to bed. The tests were of the usual kind (sums in addition, learning figures, etc.) The subjects of the experiment were two medical men, one of whom had been a teetotaler for years, while the other seldom took alcohol. The influence of these moderate doses of alcohol were found to be decidedly unfavourable; mental aptitude slowly, and then after some days more markedly, decreased, the loss being in one case equal to 25 per cent. of the normal ability. Moreover, in one case at least the unfavourable influence did not cease with the discontinuance of the alcohol. When after five days' abstinence alcohol was recommenced, its unfavourable influence was more marked than in the first series, this indicating that its after effects had not ceased. An important practical result of these experiments is that even a very moderate dose of alcohol exerts its effect for more than twenty-four hours. The author considers that a drunkard should be defined as one in whom a persistent influence of alcohol may be demonstrated, *i.e.*, one who takes a second dose before the effects of the previous dose have had time to disappear. It is noted that the subjects of these experiments were not in the slighest degree aware of any decrease of mental ability while taking alcohol, and

it was at first thought that the experiments were not unfavourable to alcohol. The authors point out the very great practical importance of these observations, since they indicate that a vast number of people who only drink alcohol in moderation must be demonstrably in the early stages of chronic alcoholism.

Schneider has made very interesting attempts by the simplest method to study perception and attention in senile dements. The chief point to which he attaches importance is their very marked inability to give attention to new impressions, even when they appear to be quite capable of observing objects. He thinks this may be important in diagnosis.

Lindley continues the investigations of Amberg, Rivers, and Kraeplin into the relations between rest and work. The most notable result of his observations seems to be the very marked individual differences among healthy adults in the amount of rest required after half an hour's work.

Origin and Character of the British People. By N. C. MACNAMARA, F.R.C.S. London: Smith, Elder and Co., 1900, pp. 242, 8vo.

Mr. Macnamara, who had prepared himself for the task by his anthropological investigations in India and elsewhere, has here attempted to analyse the racial elements of the British people, and to ascertain the relationship of those elements to the chief races of the world.

He sets out by summarising the main features of the finds of relics of prehistoric man, more especially in Western Europe and Great Britain; this excellent account is well illustrated, considerable use having been made of the neglected wealth of anthropological material in the College of Surgeons.

He then traces what he conceives to be the anthropological history of Western Europe in general, and Great Britain in particular, from early neolithic times, when our islands were peopled by short, probably dark, long-headed people, of the Iberian or Afro-European stock. Then came an invasion of tall, probably fair, long-heads, of much greater mental development, who lorded it over the Iberians; the Cro-Magnon remains belonged to these people whom Mr. Macnamara calls Aryans and associates with Asia. Then came tall broad-heads, probably fair, from the direction of the Baltic; these were a northern Mongoloid race, and the author thinks that we may find their present representatives in the Finns. Finally came the short, dark broad-heads: these were the southern Mongoloids; they had affinities with the Burmese and they brought bronze with them. Subsequent invasions belong to historic time and introduced no new racial element.

It may be noted that Mr. Macnamara's account cannot be said at every point to harmonise with the opinion of recent anthropological authorities. In insisting on the importance of the Iberian element as a primary British stock he is on safe ground; but in assuming, without discussion, that the Cro-Magnon people were a perfectly distinct "Aryan" race from Asia, he is departing from the tendency of recent

anthropological research. He seems to rely chiefly on the test of stature, but this is now regarded as the least reliable of anthropological tests. It is the more remarkable that he should have thus followed unquestioningly the old Aryan theory, since the book is dedicated to Prof. Ripley, while many other writers who utterly reject that theory are frequently quoted with respect. In emphasising the Mongolian influence Mr. Macnamara is, on the other hand, much more in harmony with the trend of recent work, and his account of these Mongoloid racial elements seems to overcome various difficulties.

An interesting feature of the book is the attempt to trace the chief traits of the British character to a source in these primary elements, differently intermingled in different parts of our islands. Thus the Iberians are a proud, courteous, ostentatious, impulsive, but unreliable people, insisting on "popular rights" and fond of music. These Spanish and North African qualities were described seven hundred years ago by Giraldus, as characterising his Welsh fellow-countrymen, and the account of Giraldus still holds good to-day. The Burmese have been called "the Irish of the East," and the author believes that this is accounted for by real racial affinity. The southern Mongolians are essentially a religious race, loving their homes and their lands; while very sensitive and very hospitable, they are at the same time indolent and unstable; such characteristics are common in Ireland and also in the Celtic Highlands of Europe as we proceed towards Asia. The Teutons and other "Aryans" furnish the domineering, self-reliant, warlike, and yet slow and laborious traits.

Everyone who follows up any line of psychological work sooner or later finds himself confronted by puzzling questions concerning the influence of race on psychical and physical characteristics. Such a book as this (supplementing the careful but more general works of such authorities as Ripley, Sergi, Deniker, and Keane), while not always conclusive, will be found helpful in suggesting answers to these questions. It is throughout clearly written, and is not encumbered by unnecessary technicalities.

Stachyologie weitere vermischte Aufsätze [*Stachyology and other Miscellaneous Essays*]. Von P. J. Möbius. Leipzig, 1901. Octavo, pp. 219. Price 4 marks, 80.

We guess that *Stachyologie* means stray ears of corn gathered together, both nourishment and chaff. The twelve essays bound together all deal more or less directly with questions in metaphysics and psychology. Some of them are of no great interest, but on the whole the book is a credit to the author. Möbius has a good style—a quality rare with German authors, and his power of expression is not greater than his power of thought. He begins his preface by observing that a hundred years have passed away since the birth of Fechner, and he hopes that the coming century will pay more attention to his writings than the past. "Fechner wished to satisfy both the necessities of the reason and those of the affections, and his way is the only one possible for both. But the believers turned away because they did not want

reason, and the philosophers turned away because they wanted no heart. The believers sit in Abraham's bosom and trust that it will be right with them, but for us, wasted by the flames of doubt and anxiety, Fechner's teaching is a cooling drink."

In the first paper Möbius gives a dialogue on metaphysics. Had we been present at the colloquy we might have said something, but for this review it would be too long. The second essay is a dialogue on religion, in which the subject is freely handled. Then we have a sympathetic essay on the youth of Rousseau based, of course, upon the "Confessions." Möbius complains that the French have scarcely done justice to a man who was never a Frenchman, but who was probably the most eloquent writer in their language.

In the last six papers, making up about half the book, the author fully justifies his presenting it to the public not too deeply interested in psychological researches.

Some people write in a mysterious way about genius as if it were some peculiar faculty superadded to the ordinary minds of men, and they arrange this or that person in the ranks of genius in an arbitrary manner. Möbius begins his essay on the "Study of the Talents" with the observation that a sharp definition between talent and genius is impossible. Talent is a capacity for doing some things better than most people can, and genius is nothing more than a higher grade of talent. Genius carries the idea of some creative force, but every powerful exercise of talent contains something new, and every great talent has something of genius in it. It would be difficult to settle what are distinct talents or faculties, but it will scarcely be denied that the musical faculty is one of them. The lowest species of musical gift is the simple pleasure derived from hearing music, then that of remembering tunes, and of singing and performing. The title of musical genius is often reserved for great composers, but Möbius observes that many great performers or directors who cannot compose are spoken of as possessing musical genius. Between the highest and the lowest it is but a question of degree. The taste for painting and sculpture is a human gift not so widely diffused as that for music. A special talent for art may have several qualities; some men naturally take to historical paintings, others to landscapes; some artists are good at colouring, others better at form. Möbius observes that in a simple grade of society musical melody and poetical rhythm are not distinguished; the singer and the poet are one person, nevertheless it is certain that musical and poetic talent are two separate capacities. It looks as if the common basis of a talent for art and poetry might be a love for the beautiful, but experience shows that this does not hold good; often the love goes no farther than the special talent. The lowest poetical faculty consists in the susceptibility to be affected by poetry, the next stage is to have the feelings heightened in the same manner by events, and the highest is the power of active poetical expression in different degrees of intensity. Great talents and genius are so far rare that they can scarcely be studied by direct observation. To generalise we must read a number of biographies. The author's opinion that genius is inborn will scarcely be questioned; he affirms

that it almost always shows itself in childhood. The most important question is, How does talent arise?

Möbius has no faith in the view that genius is pathological and should be classed amongst the neuroses. It does not follow them nor does it beget them in the children. But the possession of special talents leads to one-sidedness in their exercise. In men who use their brains much the normal measure between the mental and other activities is deranged, and in a man exercising a special talent the danger of losing the mental balance is still greater, for the special faculty is worked much harder than the other faculties.

The author pursues the inquiry in an essay on the "Inheritance of Artistic Talents." If talent be inherited, why is it not always transmitted? and why does it sometimes appear where least expected? These questions we cannot answer, nor can we arrange so as to have families endowed with special gifts. Nevertheless, talents, such as those for music and painting, distinctly run in families. Möbius gives a large number of instances in which men endowed with a special talent had sons who much excelled their father in the same pursuit. The two most striking examples are Raphael and Mozart. He also gives a larger list of several members in one family, two or more brothers, more rarely a brother and sister, who showed genius. The inheritance comes from the father, rarely from the mother. "I have," Möbius tells us, "not as yet found a single certain instance in which a talent for mathematics, the plastic arts, or music was inherited from the mother. It might be thought that the talent, though dormant in the daughter, might be transmitted to her children as the hæmorrhagic diathesis follows the male line, so that the daughter of a bleeder is liable to have sons who are bleeders, though not thus affected herself." Nevertheless, Möbius tells us that experience does not bear out this expectation. We may remark that, if a woman inherited the hæmorrhagic diathesis, she would certainly die in her first accouchement, if she survived her menstrual periods.

Those who believe or wish to believe that women may rival or equal men in literature, art, and science had better abstain from reading Möbius's essays upon "Some Differences between the Sexes," and on "The Physiological Weakness of Women." He states his opinion that the frontal and temporal convolutions, which are of such especial importance in mental activity, are in the human female less developed than in the male, and that this difference already exists at birth. He rejects the notion that women have failed to equal men for lack of opportunity. In music women have had more education than men, and yet in no subject is their inferiority more patent. Möbius has made serious inquiries into this question, to judge from the long list of female composers which he gives, none of whom have risen above mediocrity.

The author carries his plain speaking so far as to avow that women are not so beautiful as men. Humboldt and Schopenhauer were of the same opinion. We fancy that it would be very difficult to separate the pure æsthetic recognition of beauty from the sensuous feeling with which the two sexes regard one another. In sculptures this sentiment does not so much come into play. Is the statue of the Apollo Belvedere a more beautiful object than the Paphian Venus or the

Venus di Medici, apart from the desire one might have, like Pygmalion, of making either of them alive?

The paper on "Degeneration," though well put together, does not call for special remark, but we have read the last essay with much interest; it is on "Temperance and Abstinence."

In Germany, as in this country, those who seek to combat the evils of alcoholism disagree about the modes to be employed. Möbius deplores the deterioration of manners which has been going on in Germany for the last fifteen years.

Now, he tells us, at parties people indulge in all sorts of wines; champagne, which was only used at festive occasions, is drunk every day. For the old inns we have elegant beer palaces and wine saloons, which are filled from morning to night with a crowd of people of both sexes. Not only do the married women at entertainments drink freely, but they accompany their husbands into the drinking places, and sit by the beer glasses amongst the tobacco smoke. Lewdness and venereal diseases have greatly increased, pleasure-seeking and coarseness are more prominent. The old faith and old manners are treated with derision, though at least they were a useful bridle to human passions. Brutality is honoured as sharpness, and money, the meanest and most degrading of all tyrants, rules everything. Perhaps utter drunkenness is not commoner. As formerly we see it amongst the gentry, the students, and the workmen. What is new is the wider spread of indulgence in alcoholic drinks, and the injury this does to the burgher class.

Möbius blames the poets like Goethe and Scheffel for their drinking songs, and the doctors who are so ready to recommend alcohol as giving strength, and he deplores the new inventions to facilitate distillation and the great increase of riches. On the other hand, he takes occasion to pursue a controversy which he has had with some advocates of total abstinence whom he accuses of advancing exaggerated statements. He does not know how far some statistics, drawn by Mr. Eplinius from Switzerland and Hamburgh, may hold good, but he avers that things are not so bad in Saxony. He tells us that he has treated nervous diseases for more than twenty years, and he reckons that the proportion of patients who, after exact investigation, are found to owe their maladies to alcohol, is no greater than 1 per cent.; adding to these patients suffering to a lesser degree from the injurious effects of alcohol, without this being the main cause of their disease, he reaches the proportion of 2 per cent. On the other hand, observes Möbius, I see hundreds of patients who are broken down by syphilis. A physician treating other maladies such as heart diseases would likely have patients who over-indulged in spirituous liquors. We should have liked if Dr. Möbius had given us some explanation of the great prevalence of suicide in Saxony. At the end he proclaims his conviction that universal moderation in the use of wine should be an aim, not total abstinence. In conclusion we may say that his book bears evidence of industrious inquiry and of sound sense. WILLIAM W. IRELAND.

I Disturbi della Memoria e loro Importanze Medico legale [*The Disturbances of Memory and their Medico-legal Importance*]. By Dr. G. PARDO, Roma: 1899. Octavo, pp. 261. Price 3*s*.

The author tells us in the introduction to his book that his exposition will be purely psychological, for he is of opinion that in the present state of our knowledge any anatomical explanation of the normal process of memory is vain and delusive. There are some schemes using for that purpose the newest idea of the histology of the nervous system, but these explanations, when not merely verbal, have but a semblance of scientific accuracy which cannot stand criticism. Dr. Pardo commences by considering the normal psychology of memory, and then passes on to its disturbances in the memory of acquisition, in fixation, and in the preservation of remembered images and ideas. He then considers the disturbances of the memory, of reproduction, of evocation, of revival, and of recognition. In the special part of the work Pardo shows how the memory is affected in the different forms of mental weakness, and of insanity.

The chapter on the medico-legal aspects of impairment of memory shows thought and care. Dr. Pardo remarks that it is rare that this occurs as an isolated symptom, but in the decline of old age and in some states of weak health the memory is often affected before the other faculties. I once had a short conversation with a well-known scientific man, during which I ascertained that his memory for recent events was impaired to a striking degree. A few minutes after, to my surprise, he was proposed and elected member of an important deliberative court; his mind, however, went on declining. Dr. Pardo mentioned some instances in which judges regarded the persistence of memory as a proof of sanity. He cites from Lasègue a case in which a lunatic was set free from an asylum because he could repeat from memory the names of his ninety-seven tenants, and Parant gives a curious story of an assassin tried before the assizes of the Ariège, in 1865, who answered with precision the different questions addressed to him. "I demand," said the President, "if a true madman could be so precise in his replies." The accused was accordingly condemned to hard labour for life. Sometimes persons wishing to simulate insanity feign a loss of memory. They generally pretend a greater forgetfulness of remote events, whereas in pathological amnesia the memory of recent events is most affected. The most puzzling cases are those in whom there are gaps in the memory of certain times or false memories, in which the patient mixes up his dreams or imaginings with his life-history.

A curious question is raised by the forgetfulness of things done or suffered during the state of hypnotism or somnambulism. Pardo cites the following from Krafft-Ebing: A girl was violated by her physician who had hypnotised her. As she remembered nothing about it in the waking state, the public minister desired that she should again be put into the hypnotic state in order to obtain some circumstantial information, not to gain juridical proof. The girl was unwilling to be subjected to this, and the tribunal sustained her refusal.

When hypnotism came into vogue fears were entertained that there might be falsifications of memory for fraudulent purposes, through the

medium of suggestion. But experience has proved that transactions of this kind do not occur, and if they did an expert physician could easily detect the falsehood suggested.

At the end of the book Dr. Pardo gives some observations on exceptional memory and retrograde amnesia, but he is not yet able to draw largely from experience. His book is a praiseworthy contribution to the subject, showing thought and diligence and an elegant style. We are pleased to learn that the author purposes giving his attention to psychiatry and expect to hear more of him.

WILLIAM W. IRELAND.

Hirnanatomie und Psychologie [*Brain Anatomy and Psychology*]. Von Prof. Dr. L. EDINGER. Berlin: 1900. Octavo, pp. 25.

In this pamphlet, a reprint from the *Berliner klinischer Wochenschrift*, Dr. Edinger considers the question: In what relation do the mental faculties stand to the anatomical arrangements in the brain? He wishes to change the maxim of Du Bois-Raymond *ignoramus et ignorabimus* into the more hopeful one of *ignoramus sed non ignorabimus*. We cannot say that with all his knowledge and all his readings, which are extensive, the professor has been able to lift a single fold of the mantle which shrouds the inner operation of mind from the investigator with the scalpel and the microscope. He hopes to gain some light by a comparison of the less complicated nervous system of the lower animals with their simpler nervous or mental manifestations, but here we can only make guesses by comparing our own sensations, consciousness, and actions, with the external actions of these creatures, and in some cases, though we recognise mental action, as in the ant, we perceive that it must be of a different character. Some naturalists are very averse to acknowledge anything approaching to sensation, or higher up to reason in lower organisms, unless after proofs extremely difficult to furnish. Naturally those who regard sensation and mind as evolved by very minute degrees from organisms rising in structure are more ready than the older observer to recognise the first obscure glimpses of sensation, consciousness, and reasoning. It is like watching a man whom we know to be approaching. At first he seems a mere speck, then the head, and then the limbs are descried, and our first indistinct apprehensions are helped by our anticipating knowledge. Dr. Edinger reviews with much satisfaction what has been done since the days of Flourens in the allocation of special functions in the brain and spinal cord. He thinks that our acquaintance with the latter structure is well nigh complete. He is disposed to regard many processes in the lower animals, often set down to sensation and mental effort, as reflex, the result of unconscious machinery. To support this he cites some curious observations from recent observers, none of which seem to me to prove more than was done by Marshall Hall. We know from experience that in the human organism there are reflex actions apart from sensation, and that there are others accompanied by sensation upon which we may direct our consciousness. In the case of annelids referred to by Dr. Edinger, the movements of the severed tail

seem to me of a different character from the remaining trunk with the head. Movements may go on for a while in the former part, and later on may be excited by applied irritations; but in an active annelid the movements of the portion which carries the head are of a quite different character. The creature puts out its slender antennæ to feel its way; it whips it round solid objects; it advances or retracts apparently from the information thus gained; if it turns, the lower segments are curled round, obeying an impulse from some centre which orders, regulates, and inhibits movements. All this makes me agree with Darwin in thinking that worms have sensation and even a feeble degree of intelligence.

We certainly know that mental processes in the higher animals are connected with the brain and some with particular regions of the brain, but the researches of anatomists and physiologists have brought us little farther in explaining the process. WILLIAM W. IRELAND.

Beitrag zur Pathologie der Ganglienzelle [*Contribution to the Pathology of the Ganglionic Cell*]. Von Dr. OTTO JULIUSBURGER und Dr. ERNST MEYER.

In this pamphlet, a reprint from the *Monatsschrift für Psychiatrie und Neurologie*, the authors give the result of their examinations of the nervous centres of twenty-eight insane patients who died in the Asylum of Herzberge. These were principally cases of general paralysis and other forms of dementia, senile and alcoholic. The results are given in a tabular form.

The attention of these two pathologists was mainly directed to the great cells of the anterior columns of the spinal axis and of the central convolutions of the brain.

Nissl has described the ganglionic cells as of varied appearance especially characterised by the differences in the coloured substance. One part of the motor cell is readily coloured (chromatophile), whereas another portion remains uncoloured. This uncoloured portion is said by some histologists to be composed of fibrils, which are connected with the axis-cylinders and the dendrites. The chromatophile element is made up of granules. To the groups of granules the authors give the name of *granula*. They found that the ganglionic cells, instead of presenting a polygonal radiating form, were rounded, and that the processes were less apparent or wanting. The larger *granula* had disappeared and only small isolated granules could be described. The alterations in the anterior columns of the spinal cord were of the same character. Drs. Juliusburger and Meyer regard the alterations in the amount of the granular matter in the ganglion cells as the result of diminished nutrition. They are inclined to think that the change is not permanent, and that the cells may recover their normal structure.

WILLIAM W. IRELAND.

Ueber den Einfluss fieberhafter Processe auf die Ganglienzellen [*Upon the Influence of Febrile Processes upon the Ganglion Cells*]. Von Dr. O. JULIUSBURGER und Dr. E. MEYER.

In this reprint from the *Berliner Klinische Wochenschrift* the authors have given the result of an inquiry testing the observations of Goldscheider and Flatau, who thought they had ascertained a specific effect of fevers upon the ganglion cells, which consisted in an alteration of the granula. Drs. Juliusburger and Meyer made a careful microscopic examination of the brains and spinal cords of nine patients who died of inflammation or hectic fever following tubercle. In only one of these, a patient suffering from a deep burn and afflicted with melancholia, was any particular change in the nerve-cells observed. In the others the granula seemed to be somewhat less in quantity. They consider these granules to minister to the nutrition of the nerve-cells. They have come to the conclusion that there is no typical alteration of the ganglion cells following a febrile rise of temperature, nor could they detect any specific alteration in the other tissues. WILLIAM W. IRELAND

Syphilis des Centralnervensystems [*Syphilis of the Central Nervous System*]. Von Dr. ERNST MEYER. Gustav Fischer in Jena. Pp. 35, 8vo.

These pages, originally printed in the *Centralblatt für Allgemeine Pathologie*, give a pretty complete account of the literature of the subject. Most authors think that the nervous system is now oftener attacked by syphilis than formerly, and that this is owing to diminished resistance, owing to the greater strain and excitement of life. Those who lead an anxious and dissipated life and who have not had a judicious antisyphilitic treatment are more liable to be so attacked. The nervous affections follow the syphilitic infection, sometimes as early as one month, and generally within the first year. Sometimes they supervene much later, even after six years.

Dr. Meyer describes in detail the pathological lesions in syphilis of the nervous system, and cites a number of cases.

The report gives evidence of much research and diligence.

WILLIAM W. IRELAND.

Juridische Briefe. Von Prof. Dr. MORITZ BENEDIKT. 1. Degeneration und Verbrechen.

Juristische Briefe. Von Demselben. 2. Geistesstörungen und Verbrechen. [*Juridicial and Juristical Letters on Degeneration, Crime, and Insanity*].

In these papers, reprinted from the *Allgemeinen österreichischen Gerichts-Zeitung*, the learned professor tries to impress upon the legal mind those views upon crime, responsibility, and punishment which he has so long advocated with so much eloquence and acumen. Dr. Benedikt is a well-known and welcome figure at the annual meetings of our Association and of the British Medical, and is well acquainted

with our language and literature. We are therefore all the more pleased at the friendly appreciation which he affords to our country. He remarks that "Shakespeare has portrayed in a masterly manner the thief, the drunkard, the pander, the bravo, the prostitute, and other delinquents. But the poet, for dramatic reasons, has exhibited the picturesque side of the criminal and his social relations. It was left for the scientific investigators of this century to study the outcome of inborn proclivities and neglected or corrupt education."

Science, Benedikt goes on, has made another important conquest, which plays an important part in the administration of justice. She has during the last century enormously advanced our clinical knowledge of mental derangement, and has shown that numerous criminal deeds have been the work of insane persons upon whom numberless judicial murders have been perpetrated. If one thinks how many such enormities have been committed from religious and political grounds, one may cry out that the history of justice is scarcely sadder than the history of injustice. The notion of punishment has altered under the teaching of modern science. Justice is no longer a woman who wields the sword with bound eyes, but a seeing man, alive to the demands of public interest and public conscience. The author commends the Russian law for the punishment of minors, and the method of dealing with the occasional and inveterate criminal in Belgium. For the former the jails are sufficient; from the latter society has the right to protect itself by shutting them up for life.

In his second letter Benedikt tells us that during the last twenty-five years there has been not a single case in which an English judge has not respected the given opinions of physicians. We suppose that this must have happened when there was no diversity of opinion amongst them, which is not always the case.

It is not uninteresting to inquire how this harmony between the English judges and medical science has been attained. The continental education for the law demands that the student should know everything that all his teachers in their different subjects know or pretend to know. The student has his time filled up with juridical dogmatics and dialectical distinctions, after escaping from which they entertain a disgust for further study. They suffer from ignorance of the laws of human intercourse and the ways of the world. They sink into a speciality and are averse to exploring the other fields of knowledge. On the other hand, the English and American training for the legal profession sets out with the idea that too much time should not be spent at the colleges. It is a peculiarity of the English people, he observes, that both amongst the educated and the uncultured there is a desire on questions of general importance to form and revise their views on private and public ethics, and it sometimes happens that, yielding to weighty arguments, not only men of learning but whole classes abandon fundamental opinions and adopt another view. We see that, in political life, the Tories often take up the principles of the Whigs, and *vice versâ*. The English jurist always remains in touch with the streams of thought which flow beyond his department, and which may usefully influence him. The professor was happy to observe at the meeting of our Association in Dublin (in 1894) that the members

agreed with him in all principal questions, while his views at home are contested officially and academically when they are not ignored. It may be here observed that the legal profession in Britain has, up to this time, shown sufficient practical sense not to insist upon the unreasonable examinations to which the student of medicine is subjected, for Benedikt's remark will hold good with medicine in this country that each professor expects the students to be master or pretend to be master of the subject on which he spends his whole time, some of which subjects are of no practical importance. Benedikt is far from falling into the error besetting some members of our profession, that insanity excludes responsibility. In some cases, such as weak-minded persons given to fire-rising and other mischief, he thinks the jail the proper deterrent, and he would allow a considerable amount of liberty to paralytics in the disposal of their property. I have, he says, in the case of a pronounced paralytic given the opinion that the patient was quite capable of making a valid testament, because the dispositions of the will were in harmony with the views and sentiments which he entertained when sane. No Austrian colleague would subscribe to the opinion laid down by Benedikt. It was, however, confirmed by a celebrated English physician and respected by an English court. Benedikt mentions another case in which the patient was protected against an accusation on account of an offence against public morality, while in the same week, without the professor's intervention but with his full concurrence, the patient was allowed formally to dispose of property. There are some varieties of general paralysis which may be diagnosed years before any mental derangement is noted. There are also other forms of insanity in which the mental impairment is so gradual, that it is a thorny question to answer when responsibility ceases.

Irrenhülfsvereine, ihre Leistungen und Entwicklung [*Associations for the Help of the Insane*]. Von Dr. BROSIUS, in Sayn.

In these sheets, reprinted from the *Irrenfreund*, Nos. 11, 12, 1898, Dr. Brosius gives us some account of the associations for the assistance of the insane which have been formed in German-speaking lands. The first of these was founded in Nassau, but was given up on the death of Lindpaintner in 1829. There is one in Vienna which has now lasted half a century, and one in Styria founded thirty-two years ago. There are now nine in the different cantons of Switzerland, some of which are well supported. Dr. Brosius mentions as many in Germany. The Westphalian Association of St. John founded in 1881 the institution for idiots at Marsberg, which now gives shelter to 329 inmates. The common object of these associations is to help dismissed lunatics, and to give succour to the families of those who have lost their bread-winners through their being sent to asylums. Some of them also give assistance to epileptics who are not insane. Dr. Brosius mentions that Dr. Jules Morel, the physician of the State asylum at Mons, has exerted himself to found a similar society in Belgium, and Dr. Bourneville has done the same in France. Dr. Brosius observes that, besides the

charitable work done by these praiseworthy associations, they have formed a useful intermediary between the asylums and the public, and have helped to dispel the distrust with which asylums are regarded by the ignorant. WILLIAM W. IRELAND.

The British Sanatorium Annual. Illustrated. Second year of publication. 1901. London: Bale, Sons and Danielsson. 8vo. Price 2s. 9d.

Dr. Percy Dunn in a short preface explains that this work has been reprinted from papers published in the *West London Medical Journal.*

The book will be of special interest to those asylum superintendents who are engaged in designing sanatoria for phthisical patients. It is profusely illustrated from photographs, and thirty-one hospitals are described in the letterpress, but it would have been more useful if plans showing the interior arrangements had been added. The plan of the East Anglian Sanatorium has been given, and it shows an admirable arrangement of buildings for the purpose intended.

Part III.—Epitome of Current Literature.

1. Anthropology.

The Lateral Folds of the Vestibular Sulci of the Mouth [*Le pieghe laterali dei solchi vestibolari della bocca*]. (*Arch. di psichiat., vol. xxii, fasc. i, ii.*) *Favaro, Lombroso, Treves, and Olivetti.*

IN this paper, Favaro describes a special disposition of the buccal mucous membrane, exceptionally met with in man, and corresponding to a condition constant in the majority of the other mammalia. It consists in the presence, in the upper and in the lower jaw on each side, of a fold passing from the internal surface of the lip backwards and inwards to the interval between the alveoli of the canine and first premolar. It is brought into view (as is shown by an illustration) by grasping the lip near the commissures and everting it moderately. Robin and Magitot have described similar folds in the buccal mucous membrane of the child during the first months of life.

Favaro considers that in the adult these folds have the significance of rudimentary organs. In observations made on a hundred normal individuals, he found the condition absent in seventy-nine, slightly developed in fifteen, well developed in six.

In the second part of the paper, Lombroso records his observations (made in association with Treves and Olivetti) on the frequency of this

condition in the insane and the criminal. The results were as follows :—

Male insane (100 cases).	...	Folds well developed in		10	per cent
Female insane (122 cases)	...	,,	,,	9	,,
Male insane excluding epileptics (100 cases)	...	,,	,,	4	,,
Female insane excluding epileptics (105 cases)	...	,,	,,	9	,,
Male idiots (24 cases)	...	,,	,,	nil	
Female idiots (7 cases)	...	,,	,,	nil	
Male habitual criminals (130 cases)	...	,,	,,	36	,,
Femal habitual criminals (26 cases)	...	,,	,,	23	,,

Lombroso concludes that the persistence of these folds is to be regarded as an atavistic stigma, therefore specially common in the epileptic and the criminal. Its frequency in these two classes is, he thinks, a further evidence of their identity of nature.

W. C. SULLIVAN.

The Use of the Hand in Gestures of Responsibility [*Le rôle de la main dans les gestes de responsabilité*]. (*Rev. Scient., July*, 1900.) *D'Enjoy.*

The hand—the essential organ of gesture—has from time immemorial been chosen to express, in a material manner, a promise made, faith solemnly engaged. D'Enjoy shows that, through history, imposing the hand is a pledge of fidelity, a token of a resolution taken. Among some people a private seal was used, and then came the signature or sign as knowledge or civilisation spread; these are derived from, or constitute an extension, a development of, the practice of manual imposition. In giving testimony in the law-courts, in striking a bargain, etc., always and everywhere the hand pledges the responsibility. To give her hand is, for a maiden, synonymous with promising marriage At various epochs, among various people, the thumb or the index is substituted for the hand—a part for the whole ; and in this connection the signature of the illiterate among the Annamites, by the help of the measurement of the index is interesting. The conclusion is that in all latitudes, in all ages, among all races, the hand conveys the same gesture—it binds.

H. J. MACEVOY.

2. Neurology.

Some Remarks on Hitzig's Report upon the Projection and Association Fibres of the Brain [*Einige Bemerkungen zu E. Hitzig's Rapport ueber die Projectionscentren und die Associationscentren des menschlichen Gehirns*]. *Flechsig. Leipzig, October*, 1900.

Flechsig begins this paper with a complaint against Professor Hitzig, to whom he had lent some sketches to illustrate a report on the "Projection Centres and Association Centres of the Human Brain," for the

Neurological Congress at Paris. These sketches Hitzig published along with his own comments in *Le Neuraxe*, vol. i, fasc. iii. Dr. Flechsig is, however, neither satisfied with the publication of the drawings, which were unfinished, nor with the manner in which they were coloured and numbered, nor yet with the way his views were stated by his brother professor. Whatever the merits of this controversy are, we can certify that it is sometimes by no means easy to arrive at a clear idea of Flechsig's views, and he himself tells us that some of them have already become obsolete (veraltet).

In the paper under review, the learned Professor of Leipzig gives his latest views. Setting out with "the universal law" that equivalent nerve-fibres, fibres which have the same functions, develop their medullary sheaths about the same time, different elements at different times, in a regular succession, we have in this order of development a guide to the functions of the different regions of the brain. By examinations of a large number of fœtal and infants' brains, Flechsig has already mapped out about forty separate areas which he has chronologically divided into three groups: primordial areas, which come early to maturity; terminal areas, which ripen late; and intermediate ones, which take a middle course. This division is in no way designed to amend his old classification into sensory and association centres. Such investigations can only be fully carried out on the human brain. It has been ascertained by Döllken that the dog has only about one half the distinct fields of the human brain, nor are they so clearly developed.

Flechsig thus sums up.

1. There are from eighteen to twenty myelogenetic fields which are furnished with a corona radiata, and also other fields in which neither in the child nor in the adult can such a connection be found.

2. These areas are rich in the long association fibres, while in the parts where the corona radiata fibres abound the association fibres are in small quantity.

3. Flechsig recalls that, in 1896, he described four sensory spheres generally assigned to bodily sensation, vision, hearing, smell, and taste. These spheres, he goes on, are by his newer researches found to be made up of a number of myelogenetic fields of the cortex, the sphere of bodily sensation of eight, the others of three, with the exception of the auditory. The sphere of common bodily sensation is somewhat larger than he formerly described. It reaches some centimetres farther anteriorly into the first frontal gyrus, and for two centimetres into the anterior portion of the gyrus supramarginalis. Moreover a further portion of the gyrus subangularis has been now found to contain a projection area. Each sensory centre in the cortex has peculiarities of structure.

He first distinguished four association centres—a frontal, parietal, temporal, and an insular. Later on he conjoined the parietal and temporal into one great posterior association centre. The demonstration that there is a projection field in the gyrus subangularis reduces the connection of these two latter to the posterior part of the first and second temporal convolutions.

The parietal and temporal centres have "border zones," the fibres

of which become mature before the central areas. They are connected with the sensory centres by numerous *fibræ arcuatæ*. The *insula* and *præcuneus* appear to be made up of border zones. Sometimes stray bundles from the *corona radiata* are found in these border zones. The professor regards this as an aberration, and explains that single finds of this kind in no way prove the general and regular occurrence of the bundles of the *corona radiata* in the border zones. The function of these zones is not defined.

The median areas of the association centres (especially the middle piece of the gyrus angularis, the third temporal convolution, and the anterior part of the second frontal), are apparently gathering points (knotenpunkte) of the long association system. These central areas are terminal and characteristic of the human brain. Their isolated destruction is never accompanied with sensory or motor disturbances. Excitations of a motor kind may be aroused from them, but these are to be regarded as results conducted from distant parts.

The median areas of the association centres stand in more or less direct connection with all the sensory spheres, and are associated with their activity. If they are destroyed on both sides, deficiencies of the intelligence follow, especially troubles of association. The central areas are therefore of importance for the manifestation of mental activity and for the formation of mental images in which several sensory qualities are included, for example, the naming of objects, reading, etc. As these functions are always impaired in disease of the posterior association centres, clinical observation confirms the correctness of his division of the cortex into sensory (projection) and association centres.

In a concluding note, the Professor discharges a broadside against Siemerling, Vogt, and von Monakow, who boast to have learned out of a scanty material the course of the formation of the nerve-fibres and the laws therewith connected, better than he working on a large material.

W. W. IRELAND.

Researches into the Physiology, Anatomy, and Pathological Anatomy of the Optic Thalamus [*Physiologische, anatomische, und pathologisch anatomische Untersuchungen des Schhügels*]. (*Arch. f. Psychiat. u. Nervenkr., B. xxxiii, H.* 3, 1900.) *Probst, M.*

The great diversity of the results obtained by different observers, clinical and experimental, in lesions of the optic thalami being attributable to want of uniformity in their methods, and to insufficient anatomical examination of the lesions present, a large number of experiments were made on cats and dogs in the same manner, viz., by the introduction through the longitudinal fissure and corpus callosum, directly into the thalamus, of a fine cannula, from which a hook could then be protruded and a cut thus made. The animal being allowed to live long enough for degenerative changes to become established, the thalamus and surrounding parts were stained by Marchi's method and examined in uninterrupted serial sections. These experiments, which gave concordant results throughout, were supplemented by others in which certain parts outside the thalamus were divided.

In a typical experiment, described at great length and illustrated with photographs, nearly all the structures in the more caudal parts of the left thalamus were injured, producing very numerous degenerations in tracts leading to the red nuclei, substantia reticularis, and anterior corpora quadrigemina, as well as to the cortex in all regions, and many others. The head and spine were turned, and circus movements took place, towards the injured side permanently. There was some awkwardness in the movements of the right fore-limb at first, and sensation was transitorily impaired in the extremities, especially the limb mentioned, but in no experiment was this impairment found to be lasting. Persistent hemianopsia of the uninjured side was present, but the eyes were normal and the pupils reacted. There was no paresis. The hind limbs were never affected in such experiments.

Injuries giving rise to degenerations less extensive than the above in the caudal region produced temporary deflection of head and body, with circus movements, to the injured side, followed by deflection and movements to the sound side, which were also transitory. Unilateral lesions posterior to the region of the posterior corpora quadrigemina produced deflection and movements to the sound side only, provided all centrifugal fibres were cut. No certain explanation of the abnormalities of movement and position can as yet be given. The transitory awkwardness of movement of the fore-limb was probably due to the impairment of sensibility (including muscle-sense), which was only temporary, and is to be attributed to injury of the tegmental radiations and fillet; the permanent hemianopsia chiefly or entirely to injury of the pulvinar, producing degeneration of the fibres of the stratum sagittale laterale running to the occipital lobe. In some cases there was increased peristaltic action, and the rate of the pulse and respiration was augmented.

From a study of the degenerated tracts, is shown that all the fibres of the fillet end in the thalamus, chiefly in its nucleus ventralis, a few crossing to the opposite side; and in fact all fibres coming from parts caudal to the posterior corpora quadrigemina end in the large subcortical ganglia. The optic thalamus also receives centripetal fibres from the nucleus reticularis tegmenti and brachium which end there, but it is just possible that some of the fibres from the anterior corpora quadrigemina may merely traverse the thalamus. Small tracts of fibres also pass to the latter from the cerebellum, the ascending root of the opposite fifth nerve, and the anterior column of the cervical cord (same side), but none of the fibres taking origin in the thalamus reach the cord, all such ending in the red nucleus, the anterior corpora quadrigemina, and the ganglionic masses of the substantia reticularis in the quadrigeminal region. Thalamic lesions can therefore produce no direct paralysis, and even the sensory impairment is incomplete owing to the crossing of some fillet-fibres to the opposite side.

On the other hand, the optic thalamus sends a number of fibres to the cortex, which occupy the lateral part of the corona radiata, and are distributed practically to all regions of the brain. Most of the centripetal fibres of the corona thus take origin in the thalamus, while a great number of fibres arising in the cortex end in that ganglionic mass.

There are thus two centrifugal paths from the cortex—the pyramidal

(voluntary) direct, and the indirect through the thalamus, with other relays further down. In man, the latter path is only used in emotional expression, but in the lower animals is also voluntary.

The physiological significance of the optic thalamus lies in its connection with all the centres of the organs of sense.

In conclusion, a very interesting case is cited in which practically the whole of one optic thalamus was destroyed by hæmorrhage in a senile dement, without directly involving any other parts. In this case, the symptoms and changes due to the thalamic lesion corresponded with those experimentally produced in animals. From some of the symptoms present in this and another case where both thalami were destroyed by a tumour it appears possible that the optic thalamus may have some vaso motor function to discharge.

For a vast wealth of reliable observations on numberless other points connected with this region, the reader can only be referred to the original paper. W. R. DAWSON.

The Minute Changes in the Cerebral Cortex consecutive to Experimental Mutilations of the Cerebellum [*Le fine alterazioni della corteccia cerebrale consecutive a mutilazioni cerebellari sperimentali*]. (*Arch. di psichiat., vol. xxi, fasc. iv, v.*) *Christiani.*

In two dogs and one guinea-pig killed a year and a half after the total removal of the cerebellum, Christiani has examined the condition of the cerebral cortex, directing his attention particularly to the frontal lobes and the motor area. Sections were prepared by the Nissl, Weigert, and alum-carmine methods. The results are given in very brief summary without illustrations.

Distinct alterations were found in the cells and fibres in every part of the cortex, most intense in the motor area, and very well marked also in the pre-frontal region. The cells most affected—in different degrees of degeneration up to their entire disappearance in some sections—were in the layers of the small and large pyramids. The gravest changes in the fibres were in the tangential layer and in the layer of small pyramid cells. The fibres of transverse direction were more affected than those running vertically. W. C. SULLIVAN.

Observations on the Chemistry of Nerve Degeneration. (*Arch. of Neur., Lond. Co. Asylums*, 1899.) *Mott, F. W., Wakelin Barratt, J. O.*

The authors first give a short description of Marchi's method, and of the chemical changes which this method reveals. They then proceed to explain the results of analysis of two cords from cases of hemiplegia.

The cords were split down the middle and dried, the lecithin extracted with ether, and then the total phosphorus estimated.

The results obtained are exceedingly interesting, and are summarised in the paper as follows:

A. On the degenerated side of the cord in simple hemiplegia it was found that (1) a breaking up of phosphorised fat occurs; (2) the amount of lecithin present is diminished; (3) the amount of fat present is in excess; (4) the amount of extractives soluble in ether is increased; (5)

the proteid residue diminishes in amount *pari passu* with the increase of extractives; (6) the phosphorus in the residue diminishes at a still greater rate than the residue itself; (7) the percentage of phosphorus in the half cord as a whole is diminished; (8) the ether extract has an appearance of butter instead of being crystalline.

B. When two attacks of hemiplegia occurred affecting in succession both sides, the alteration of composition of the cord was more complex, but was such as would be expected from the development of the changes above recorded in sequence in the corresponding half-cords.

BERNARD STRACEY.

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3. Physiological Psychology.

Psychology from 1889—1900. (*Rev. Scient., Sept. 22nd*, 1900.) *Ribot.*

This is Ribot's opening address to the Fourth International Congress of Psychology, in which he reviews rapidly the progress of psychology since the preceding congress, observing that certain parts of the science suffer from a plethora of literature and investigation, and others from anæmia. In all directions there is progression. As is the case with many other sciences, the day is near when the publication of voluminous treatises on psychology will not be possible. A comparison of the list of titles taken from the psychological index of the last four years, shows that the yearly increase is marked. Ribot advocates especially the publication of monographs—frequent, numerous, well done.

H. J. MACEVOY.

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4. Clinical Psychiatry and Neurology.

Two New Cases of Insanity of Twins [*Deux nouveaux cas de folie gémellaire*]. (*Arch. de Neur., Feb.*, 1901.) *Culterre.*

In this paper the author describes two cases of insanity of twins which have been under his observation for some years.

He mentions in a note that Soukhanoff in his recent *resumé* of the subject ("*Annales médico-psychologiques*," Sept.—Oct., 1900) omitted to acknowledge one case published by Worcester in the *American Journal of Insanity* for April, 1891. This case, together with the one personally observed and recorded by Soukhanoff and the two he himself now reports, make thirty-three cases of this form of insanity published up to February, 1901.

He asks: Is there such a thing as insanity of twins? and answers in the affirmative, providing we put aside cases of communicated insanity in twins and accept those which answer to the three following characteristics:

(i) Simultaneity of the attack, and at least a partial parallelism of psychological symptoms.

(ii) An analogous course, and an identical termination of the malady.

(iii) Spontaneous origin of the disease, developing on a similar organic basis.

These conditions, which exclude all accidental psychoses, lead us to see in twin-insanity a branch of the insanity of degenerates; the mere fact of being a twin is, in his opinion, in certain cases a sign of degeneracy. He states that twin births are often due to syphilis or tubercle, and are closely connected with the birth of monsters, quoting various authors in support of these assertions. He believes that hereditary tubercle, syphilis, and intoxication of the parents at the moment of conception, together with heredity, are the most potent factors of early or congenital psychoses—in which group he includes *la folie gémellaire*. He notes that, in the greater number of cases of this form of insanity, a history of heredity has been found—sometimes in a marked degree.

In the cases frequently recorded of insanity occurring in one twin only, he is of opinion that it may be due to the other's having, by a happy chance, escaped; or more often that the neurotic taint has revealed itself in some other form; or, again, the other twin may have died in infancy.

He then briefly describes seven cases which he has met with in his own practice, and points out that degeneracy and heredity are the etiological characteristics of these cases. He proceeds to mention three observations concerning twins, culled from recent medical literature.

He thinks that the conditions of simultaneity, resemblance, and agreement in the beginning, form, and course of the mental disease, laid down as constituting *folie gémellaire*, must not be taken too literally; for its diagnosis, it is necessary to give much more weight to the combinations of symptoms than to any particular one. In his opinion the perfect similarity, physical, intellectual, and moral, and even in the pathological phenomena, which some writers insist on as existing in twin-insanity, savours of the mystical and marvellous, and is contrary to observation.

The first of the two new cases he records is that of twin sisters suffering from melancholia, drifting into secondary dementia. The onset in both was very similar, but in the one the progress of the mental trouble was earlier and more rapid—the delirium less well marked, but the dementia deeper. These pathological differences tallied exactly with the physiological. In her case the physical and mental development had been more precocious than that of her sister. She was the first to be attacked, and became demented more rapidly and completely than the other twin. She had been of a cheerful disposition, while the sister was the reverse. The author finds a history of alcoholism on the father's side, and a neurotic taint on the mother's; from these two pathogenic elements arose the mental degeneracy of the twin sisters.

The second case he considers to be a typical one of insanity of twins. It is a case of acute mania in twin brothers, and shows two at least of the characteristics of this class of alienation, viz., (*a*) the same organic basis or foundation—that of the hereditary degenerate of feeble mind; (*b*) simultaneity in their first psychical manifestations, which continued to grow in a nearly parallel manner during the course

of their existence. But here the resemblance ends. The author believes that the attacks of acute mania were due to alcoholic excess in both cases, and did not necessarily arise from heredity or degeneracy pure and simple. The ultimate divergence of their mental symptoms he attributes to changes brought about in their nerve centres by these acute mental crises.

In conclusion, speaking metaphorically, Culterre remarks that if, in twin-insanity, one connects together the links which form the succeeding episodes of the malady in both patients, one will perhaps have two chains of different appearance, but of the same weight, length, and metal. ARTHUR W. WILCOX.

Idiocy and Epilepsy [*Idiozia ed epilessia*]. (*Arch. di Psichiat., vol. xxi, fasc. iv—v.*) *Pellizzi.*

The author points out that there is some confusion of ideas as to the relation between idiocy and epilepsy in the cases where the two conditions are associated. Recently the tendency has been more and more to attribute epileptic idiocy to pathological processes in fœtal and infant life. For cases where this explanation is not admissible, it is still suggested that the fits are the cause of the mental arrest.

The exposition of the author's own views is introduced by a classification of idiocies, of which four varieties are recognised :—(1) Idiocies from anomalies of brain development; (2) idiocies from pathological processes in the brain or its membranes; (3) mixed forms; (4) undefined forms. When epilepsy is also present we have, in the group of cases from anomalies of development, essential epileptic idiocy; in the classes of pathological origin, symptomatic epileptic idiocy.

Essential epileptic idiocy is characterised etiologically, by grave neuropathic heredity, very often with alcoholism or epilepsy, or both; clinically by more or less profound idiocy with convulsions, but without paralysis, paresis, or contractures, and without symptoms or history indicating pathological processes in earlier life; anthropologically, by the existence of numerous stigmata of degeneracy; anatomically, by anomalies of development of the cerebral cortex (histoatypia). From personal observations and from cases recorded in medical literature, several subdivisions of the group are recognised according to the distribution and associations of this cortical histoatypia :—(*a*) with heterotopia of the grey matter; (*b*) disseminated (disseminated hypertrophic cerebral sclerosis); (*c*) diffused (diff. hypertr. sclerosis); (*d*) without cerebral sclerosis (Roncoroni's cases).

In *symptomatic epileptic idiocy*, on the other hand, neuropsychopathic heredity is slight or absent, and stigmata of degeneracy are not frequent; paralyses and contractures usually exist; and there are pathological lesions in the brain or meninges, due to inflammatory or infective processes during infantile or intra-uterine life. Subdivisions of this form are also enumerated.

The rest of the paper deals exclusively with the essential epileptic idiocy. The anatomical substratum of this form is "a more or less grave and evident disorder in the form, disposition, and direction of the nervous elements in the entire depth of the cortex." Three

plates which accompany the paper show this condition in the cortex in hypertrophic sclerosis. The appearances resemble those figured by Roncoroni and by Chaslin in the cortex of cases of essential epilepsy without idiocy, but are more marked in degree.

What is the significance of this cortical histoatypia, and what is its relation to the epilepsy and to the idiocy? In the author's view it is a stigma of degeneracy, probably of atavistic nature, and as such found in individuals representing the lowest grade of organisation—idiots, epileptics, and congenital criminals. It is not the cause of epilepsy, but doubtless is a favourable condition for the action of the proper chemical modifications which produce the epileptic fit. On the other hand, when it gravely and extensively affects the cortex of the frontal lobes, as in the cases figured, it must be regarded as a condition excluding normal psychic function.

The author's conclusion is that essential epileptic idiocy should rank as a distinct form of idiocy, clearly defined clinically and pathologically, in certain respects allied to essential epilepsy and to congenital criminality. From its anatomical lesion, he would suggest for it the denomination of idiocy from histoatypia of the cerebral cortex.

W. C. SULLIVAN.

Two Cases of Psychoses following Influenza, with Autopsies [*Due casi di psicosi consecutiva ad influenza, con autopsia*]. (*Riv. di Pat. Nerv. e Ment., March*, 1900.) *Camia, M.*

The two cases are very similar. The first, a woman æt. 21, was admitted to the asylum on February 4th. A few days previously she had an attack of influenza, and during convalescence showed mental symptoms—wandering, buying useless articles, religious delusions. The chief symptoms on admission were sleeplessness, sitiophobia, motor agitation, incoherence, involuntary loss of fæces and urine, and destructiveness. She was oblivious to her surroundings. The temperature was slightly increased, pulse 120 per minute, and collapse and death occurred on February 12th. The second case, that of a woman æt. 47, had influenza on January 28th, with pulmonary symptoms. During convalescence she developed delusions that she was lost, became very excited, and entered asylum on February 8th. Her symptoms were very marked—loss of sleep, agitation, incoherence, then slight rise of temperature and rapid pulse; developed broncho-pneumonia, and died on February 13th. At the post-mortem there was found in both cases fatty degeneration of the liver and kidneys, and marked hyperæmia of the brain and meninges. In the second case there was a small patch of broncho-pneumonia. In neither case was there any trace of exudation or softening, or any inflammatory condition in the brain. Microscopically the pyramidal cells in both cases showed marked loss of the chromatic substance, which was disintegrated and diffused throughout the cells. The cells were affected very unequally, some being fairly normal. The vessels in the cortex were gorged with blood.

The author, from a review of the literature and from his cases, concludes that—(1) influenza, in producing psychoses, does not act in any

way differently from the other infective diseases. (2) In the psychoses following influenza, the forms with acute confusion are the most frequent, and it is probable that it is only with regard to these that influenza acts as a direct cause. (3) The macroscopic examination of the brain and meninges shows only a very marked arterial hyperæmia. (4) That the anatomical picture of the cases caused directly by influenza is that of an acute intoxication, which is probably due to a post-infective toxine. J. R. GILMOUR.

On the So-called Insanity of Negations [*Osservazioni nosologiche e cliniche sul così detto "delirio di negazione"*]. (*Riv. sperim. di Freniat., vol. xxvi, fasc.* 1—3.) *Obici, G.*

In 1882, Cotard published his paper, giving to a group of cases the name of *délire des négations*, and claiming for them a separate class. These cases are characterised by marked depression of an anxious type. There is moral hypochondriasis—they are lost, cannot live. They are frequently suicidal. They have no head, no body, no organs, etc. All the feelings are of this negative type. As the cases of delusional insanity have become better classified, it has been found increasingly difficult to place them in a definite group.

The author, while showing that they do not come naturally into the class of melancholia, and that they cannot be grouped with paranoia, etc., is not disposed to constitute them a distinct class. He states that ideas of negation may arise in many forms of psychoses, as in cases of the delirium of collapse, but that they are more developed and lasting in the chronic cases based on processes of mental involution. They assume the grade of complexity and systematisation indicated by Cotard, especially in the more marked forms of melancholia during the period of involution; but they are also common, as Cotard points out, in the insane with repeated attacks of periodic melancholia. Even in these cases, however, the insanity of negations only develops at the period when mental involution is beginning, and it seems to be a direct expression of this process. When these ideas appear, they are not to be considered as a direct issue of the previous condition, or as a secondary result of it, but rather as a concomitant group of symptoms in which the two clinical pictures are superimposed. The author states several cases, and goes fully into the clinical symptoms and literature. J. R. GILMOUR.

The Psycho-pathology of Ideas of Negation [*Psicopatologia delle idee di Negazione*]. (*Il Manicomio, No.* 3, 1900.) *De Sancte.*

The author, largely from a clinical standpoint, discusses the various ideas of negation. He points out that ideas of negation, systematic or asystematic, are very slow in appearing, and represent generally a phase of evolution of the psychoses or a secondary mental process. Their appearance coincides with the mental decadence due to chronicity or associated with senility. Certain congenital cases do not come under this class, and there is also a group in which there seems to be a "negative disposition" of the individual. From a clinical study one of the following factors is necessary to the production of these ideas: (1) a

state of mental weakness produced either by an intoxication or by some other cause acting acutely, or (2) a state of acute, subacute, or chronic pathological pain, or (3) an originally degenerative condition.

In many cases the ideas of negation first affect some organ which has been the seat of previous disease. The concentrated attention exerted for a prolonged period produces a gradual weakening of the sensations and ideas from the affected organ, and lead to its negation. There are generally four phases: (1) the marked and disproportionate exercise of the attention on one organ—a phase of affirmation; (2) the gradual weakening of the power of recognising past or actual sensations; (3) the phase of negation—in many cases affecting only one organ or subject and intermittent. This gradually passes into the fourth stage of general negation, affecting all associations. The author considers that all negations pass to a common root closely connected with association by contrasts.

J. R. GILMOUR.

The Genesis of Delusions and Hallucinations in Systematised Delusional Insanity [*De la genèse des conceptions délirantes et des hallucinations dans le délire Systématisé*]. (*Gaz. des Hôp., No.* 64, 1900.) *Montyel, M. de.*

The author supports the views (recently expressed) of Vigouroux and Decasse on the evolution of delusional insanity. Cenæsthesia is the capital factor; a diseased emotional tone constitutes the delusional state; the intellectual interpretation is secondary; it defines it, consolidates it, but does not constitute it. The altered personality is then apparent. The auditory hallucinations, constant in this disease, are prepared, excited by the delusional state, and they are an effect, not a cause. In 1888, already most of these points were urged by him before the Société Médico-Psychologique. In one important particular de Montyel holds a different opinion; while Vigouroux and Decasse look upon systematised delusional insanity as a new condition, and consider that the patient before his illness was normal, de Montyel holds that the disease is but the development of the former character of the patient, the complete unfolding of a mental state dating from birth.

He then reviews the four phases of this form of insanity, the fourth, mental enfeeblement, being more often absent than present.

Concerning the relation between delusions of persecution and megalomania, he does not accept the strict "syllogism" explanation of Foville. He recalls the psychological truth that the idea is not a determinant of action, but sensation and emotivity; and that the human mind is so constituted that it easily allows discussion of its convictions based upon logic, but with difficulty those which are rooted in the two above areas, so that whenever we come across a subject who will not brook interference with an idea—and such is the case of the paranoiac—we may be sure that this idea has some other origin than a simple syllogism. The delusions of grandeur and corresponding hallucinations are engendered by a megalomaniac disorder of emotivity, de Montyel agreeing with Cotard that, long before any ideas of grandeur are clearly formulated, the insane persecuted are conceited; some fortuitous circumstance, some expression overheard, the result of some reading, deter-

mines an explosion of delusions of grandeur; but this explosion will appear to be spontaneous when in reality it has been prepared and brought about by the previous psychical working of several years. The patient hearing some voice proclaiming him to be some important personage will believe it, and will relate this sensorial origin without suspecting that this voice is but the echo of a slow metamorphosis of his emotivity.

H. J. MACEVOY.

Uterine Hæmorrhage Cured by Simple Drainage and followed by a Psychosis [*Hæmorrhagies post-partum guéries par simple drainage et suivies d'une psychose*]. (*Prog. Méd., May* 3, 1900.) *Zalackas.*

Alice C—, æt. 24 years, suffered from severe hæmorrhage after a three months' abortion accompanied by irritability of disposition, depression, enfeeblement of memory, predominance of hypochondriacal ideas. After repeated packing of the uterus with gauze steeped in iodoform and glycerine, the hæmorrhage ceased, and in twelve days the patient was quite well. In this connection, the author discusses the question of the causation of so-called post-operative psychosis, especially as regards the influence of gynecological interference.

H. J. MACEVOY.

Masked Epilepsy [*L'Epilepsie larvée*]. (*Prog. Méd., No.* 50, *No.* 52, 1900, *and No.* 1, 1901.) *Delteil, A.*

Dr. Ardin Delteil defines masked epilepsy as a form of epilepsy which in its various manifestations exhibits certain characteristics foreign to ordinary epilepsy, and assumes the appearance of various other clinical conditions. Those forms are called epileptic equivalents, and may be of two kinds, *physical* and *psychical.* The physical equivalents include—(1) Motor equivalents, different from convulsions; (2) Sensory equivalents, vaso-motor and visceral; (3) Sensorial equivalents (sight, hearing, smell, taste, etc.)

After reference to the history of the subject, he considers under the heading of motor equivalents—*a.* Inco-ordinate forms (tremors, cramp and contractures, cries and laughter); *b.* Co-ordinate forms (chewing, jumping, buttoning and unbuttoning, procursive epilepsy, etc.); paralytic forms (sudden, transitory paralysis, aphasia, apoplectiform attacks). In the visceral forms: *a.* the digestive tract may be affected (gastric cramps, intestinal colic, rectal crises); *b.* the circulatory apparatus (angina pectoris, palpitation, slow pulse); *c.* the respiratory apparatus (laryngeal disturbance, asthma); *d.* the genito-urinary apparatus (bladder, vesiculæ seminales); *e.* the nervous system (megrim, epileptiform neuralgia). Among the sensorial equivalents which reveal true epilepsy are visual forms (rudimentary sensations, paroxysms of ophthalmic megrim, amblyopia, hallucinations); auditory forms (hallucinations, etc.)

The psychical equivalents, which raise questions of great moment so far as diagnosis and responsibility are concerned, are the most important. They may be accompanied with (1) excitation; (2) with depression; or (3) they may be alternate or double.

Among the forms with excitation we have:—*mania cum furore*; homicidal and suicidal impulses; impulsions to theft, incendiarism, exhibitionism, etc. Some of these forms may be criminal, some simple, *i.e.*, not criminal (automatic acts, wanderings, etc.) The forms with depression include—epileptic stupor and epileptic narcolepsy. The double forms are rare.

Discussing the pathogeny of these numerous forms of masked epilepsy, the author believes that they are best explained by the assumption of the existence of two orders of functional centres: 1. The superior psychical centres (centres of association of Flechsig); 2. Inferior psychical centres (centres of projection of Flechsig).

The evolution and prognosis are very much those of epilepsy in general. Ardin Delteil, in conclusion, refers to the all-important point of the diagnosis of masked epilepsy, and to the question of responsibility during and between the attacks. H. J. MACEVOY.

A Case of Hysterical Aphonia in a Grand Mal Epileptic. (*Journ. Nerv. Men. Dis., Oct.*, 1900.) *Pierce Clark, L.*

♂, 31 years, German, subject to epilepsy—grand and petit mal—since the age of 25 years. He had attacks about every three weeks. There was a history of temporary aphasia after convulsions. Shortly after coming under Dr. Clark's observation and after a severe seizure he lost his speech. He was able to whisper a few words, but the aphonia lasted six days.

This occurred on subsequent occasions after attacks of petit mal, and even independently of any attack. Suggestion cured him, so that exhaustion or inhibition of the speech centre due to an attack could be excluded. H. J. MACEVOY.

Case of Profound Aphasia and Mental Confusion Cured by Trephining and Evacuation of a Large Hæmorrhagic Cerebral Cyst. (*Glas. Med. Journ., Sept.*, 1900.) *Stevens, J. L., and Luke, J.*

♂, 38 years, a mason, after a restless night (August 29th) was observed to be aphasic and paralysed on the right side. On admission to the infirmary (September 4th) this was seen to involve the arm, the face and leg being free. There was ankle clonus on the same side; mentally he was dull, and there was loss of control of the sphincters. The aphasia was complete. Two days later was observed a slight droop of the right upper lid, and slight right-sided facial palsy. Between the 22nd and 25th twitching of the face, the right eye and root of the tongue was noticed, without loss of consciousness, on several occasions; this, coupled with the fact that there was rigidity of the fingers of the right hand, led to the lesion being diagnosed as cortical. Word-blindness was clearly made out to be present at this time. At the operation on September 30th a large hæmorrhagic cyst situated over the left cerebral hemisphere was exposed and evacuated, the bone was not replaced over the trephine-hole, and the cavity was allowed to fill up by granulation. A few days afterwards the patient recovered the power of speech and the use of his arm, and has remained well since. H. J. MACEVOY.

A Case of Adiposis Dolorosa with Necropsy. (*Journ. Nerv. Men. Dis., Oct.*, 1900). *Barr, C. W.*

♀, 36 years, was admitted into hospital, semi-comatose, without any history obtainable of the onset of her condition. She was very fat, with great pendulous masses on the upper arms, thighs, and abdomen, which gave the sensation on palpation of a bundle of worms, and which were very sensitive to pressure. With difficulty roused, her speech was noticed to be slow; she could not move her limbs. Vision was very bad, and there was marked optic neuritis. The previous history was: She had been growing fat for years; for six months she had complained of increasing difficulty in walking; two weeks before admission she suddenly lost power on the right side for a few hours; she then rapidly lost power in both legs and arms, and lost control of the sphincters. After several weeks' stay in the hospital she died—her symptoms varying but little. At the necropsy there was found a tumour of the pituitary body about the size of a walnut, involving the optic chiasma and protruding into the ventricles. The thyroid gland was normal in size, but contained a concretion the size of a small chestnut. The spinal cord showed a considerable degree of hydromyelia extending down to the dorsal region. Microscopically, there was found colloid degeneration of the thyroid with atrophy of secreting cells. There was evidence of nephritis and the ovaries were small and sclerosed. Discussing the case the author believes that the presence of the cerebral tumour was unrelated to the adiposis dolorosa, the pathology of which is obscure. H. J. MACEVOY.

Onset of Disseminated Sclerosis in Childhood—Imbecility [*Sclérose en plaques ayant débuté dans l'enfance; imbécillité*]. (*Prog. Méd., May 26th*, 1900.) *Bourneville.*

Bourneville has only seen four cases of disseminated sclerosis in children at Bicêtre between 1879 and 1899. These notes refer to one of them. The family history was bad. The patient had an illness with convulsions at the age of three years which was thought to be meningitis; it was followed by loss of speech, which returned after four months, but was stuttering; weakness of the limbs more marked on the right side, which improved gradually in two months; tremors of hands and head; right squint, nystagmus, cephalalgia, and diminution of intelligence. Between the age of four and nine years the condition was practically unaltered. In 1882, when the child was in his tenth year, attacks of vertigo and wanderings occurred, and a few months later, after a great fright, epileptiform seizures. An analysis of the symptoms, the characteristic intention tremors, the paresis, the gait, the cephalic symptoms (amblyopia, diplopia, nystagmus, cephalalgia, affection of speech), the epileptiform attacks, etc., leads Bourneville to the conclusion that the case is a fairly typical one of early cerebro-spinal disseminated sclerosis. H. J. MACEVOY.

A Case of Myotonia [*Di un caso di miotonia essenziale*]. (*Riv. sperim. di Freniat., vol. xxvi, fasc.* 2—3.) *Duse, G., Astolfoni, G.*

The patient was a young man æt. 17. His father suffered from a form of "phobia," and had feelings of fear and general trembling when left alone in the dark. The patient inherited this condition. He was addicted to alcohol and masturbation. In January, 1899, he received a slight blow on the left parieto-occipital region. There was a little bleeding from a slight wound, but considerable mental shock. Two days later convulsive seizures, tonic and clonic, set in, and recurred for eight days. During the intervals he had marked hemicrania. He was sent to hospital in great fear of an operation. The convulsions ceased without treatment at once, but the hemicrania continued. In July he began to experience stiffness in the hands, with a feeling of resistance to any voluntary movement. This passed to the neck muscles, affecting first one side, then the other. On examination in October, he was found to have large, well-developed muscles. There was, however, diminished muscular power generally over limbs and body. The muscles of the upper limbs and neck reacted to mechanical stimulation applied directly or to the nerve-trunks. They responded to the faradic and galvanic currents to an exaggerated degree, and with greater duration than normal. The group chiefly affected on voluntary movement was the scalenes, the sterno-mastoid, and the trapezius. These passed into tonic contractions whenever the head was voluntarily rotated. These muscles were not so much affected when moved in other groups in different movements. The upper limbs were in a condition of "latent" myotonia.

The authors considered the case a true form of myotonia, differing somewhat from the normal type. The patient refused to permit the removal of a portion of muscle for microscopic purposes. The authors conclude from the clinical history and progress that in this case the lesion was cerebral, probably in one of the co-ordinating centres. They discuss the various theories, and consider that myotonia may be the outcome of several pathological conditions. J. R. GILMOUR.

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5. Pathology of Insanity.

The Spinal Changes in General Paralysis [*Ueber die spinalen Veränderungen bei der progressiven Paralyse*]. (*Arch. f. Psychiat. u. Nervenkr., B. xxxiii, H.* 3, 1900). *Fürstner.*

In this critical digest the relation between tabes and general paralysis is the main subject under discussion.

Changes in the spinal cord are almost constantly found in the latter disease, except occasionally in cases which have died very early from intercurrent affections, and may be classified as follows in order of frequency:—

1. By far the commonest form is combined degeneration of the posterior and lateral columns, in which either may be affected before the other. With this is to be related the fact that the patellar reflex is

increased twice as often as it is diminished in general paralysis. The degeneration in the lateral columns may be restricted sharply to the crossed pyramidal tracts (the direct are never affected) or may be more diffuse, and is most marked in the dorsal region, diminishing upwards.

2. Degeneration of the posterior columns only, of a form differing in vertical and horizontal distribution from the typical arrangement of tabetic change, and associated with differences in the symptoms, the gait, ocular phenomena, and sensory, vesical, and bowel conditions being other than those in typical tabes.

3. Degeneration of the lateral columns only, having the same distribution as in the first class. The symptoms will be spastic paralysis, increase of tendon reflexes, and contractions.

4. Typical tabetic degeneration of the posterior columns, in cases where true tabes had been in existence for a long time, perhaps years, before the supervention of cerebral symptoms, or where true tabetic symptoms set in after the latter have developed.

5. Descending degeneration in the anterior and crossed pyramidal tracts, secondary to destruction of cortical cells. These cases are comparatively rare.

The degenerations in the posterior columns cannot be generally ascribed either to changes in the spinal ganglia or the meninges, which latter, however, sometimes affect the posterior roots to some extent. No pronouncement can at present be made as to the occurrence of general diffuse myelitis in general paralysis, but changes in the grey matter of the cord are met with. Muscular atrophy, however, does not necessarily imply involvement of the anterior horns.

W. R. Dawson.

On the Amount of Water and Phosphorus contained in the Cerebral Hemispheres, and Spinal Cord in General Paralysis of the Insane, and in other Conditions. (*Arch. of Lond. Co. Asylums*, 1899). *Wakelin Barratt, J. O.*

In this investigation the left cerebral hemisphere alone was used in each case, the basal ganglia having been previously removed.

The method employed to estimate the water and phosphorus is first fully described. Dr. Barratt then goes on to give a short *resumé* of the chief symptoms and microscopical changes subsequently found in each case. The remainder of the paper is taken up with the results of the chemical examination for water and phosphorus.

In all, nine brains were examined, five of which were from cases of general paralysis, and one each from cases of mania, phthisical mania, and alcoholic dementia, the remaining one being from a healthy person. Eight cords were examined, all of which were from cases of general paralysis, with the exception of one which was healthy.

In the cases of general paralysis, a distinct increase of water was found in the brain, and an apparent decrease of phosphorus, which decrease, however, corresponded fairly closely with the loss in weight of the brain. The percentage of phosphorus in the dried hemisphere was slightly diminished.

In the spinal cords of the general paralytics, there was an increased

percentage of water generally, along with a diminished percentage of phosphorus.

In all the cases, the reduction in amount of phosphorus in the cord was associated with tract degeneration, and chromatolysis in the cells of the anterior horn.

Gutnikov's work on this subject is shortly noticed, and some of his results tabulated. BERNARD STRACEY.

On the Acute Modifications of the Nerve-Cells by the Action of Convulsion-producing and Narcotic Substances [*Sulle modificazioni acute delle cellule nervose per azione di soustanze convulsivanti e narcotisanti*]. (*Riv. di Pat. Nerv. e Ment. Jan.* 1901). *Camia, M.*

The convulsion-producing substances used were caffein, cocaine, camphor, oil of absinth, picrotoxine, and strychnine. The narcotic agents were chloral, chloroform, and ether.

Three great types of alteration in the nerve-cells were noted; (1) the breaking up of the chromatic particles, so that they lost their configuration and special disposition, became scattered, and finally disappeared; (2) tumefaction of the nerve-cell, which took a globose form, this being due to an accumulation of a liquid substance in the protoplasm leading to marked dilatation, and even rupture in advanced cases; (3) this was observed only in rabbits, and consisted in an unusual disposition of the chromatic substance. Instead of the usual small bodies this presented very large and rounded masses, staining with the normal intensity. These lesions varied very much in the different animals. The variation had no evident relationship to the substance used. They were found both in animals dead from the narcotics and from convulsions, and the type of convulsion had also no constant influence or effect. The various parts of the nervous systems were also, with few exceptions, unequally affected.

J. R. GILMOUR.

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6. Treatment of Insanity.

The Treatment of Epilepsy by Richet's Method [*La cura dell' Epilessia col Metodo Richet*]. (*Riv. Mens. Neur. e Psych., February*, 1901.) *Garbini Guido.*

Richet's method consists in the reduction of the chlorides given in the food and the substitution of small doses of sodium bromide. In this paper the results of the treatment of fourteen cases are given. The removal of the salt from the ordinary diet did not cause much inconvenience, and the bodily health of the patients was excellent throughout.

The bromide of potassium and ammonium were found to act equally as well as the sodium bromide. The dose was gradually reduced until one gramme only of the mixed bromide was given daily. Under this dose there was a diminution of the number of fits, amounting to 73 *per cent.* The duration of each fit was also reduced on an average by

about two thirds. The excitement following the fits diminished and the general mental condition showed improvement.

J. R. GILMOUR.

Assistant Medical Officers in Asylums [*Rev. de Psychiat., No.* 11, 1900]. *Marie, A.*

Following the example of the General Council of the Seine, other public bodies in France are availing themselves more fully of the services of their asylum medical officers by giving them direct charge of patients. Dr. Marie refers to a petition addressed by Dr. Lanbry, councillor of the Yonne, in which he urges this reform, and clearly shows the advisability of increasing the responsibility of assistant medical officers. His proposal in this direction was unanimously carried by the Council of the Yonne. Dr. A. Marie also refers to the undermanning of the medical staff in French asylums in comparison with German and other asylums, and advocates reform.

H. J. MACEVOY.

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7. Sociology.

Psychological Problems relating to Criminal Confessions of Innocent Persons. (*Medico-Legal Journ., vol. xviii, No.* 1.) *Hudson.*

The author takes as the most unequivocal example of the phenomenon he discusses the confessions of persons charged with witchcraft. He believes that these and nearly all other confessions of guilt by innocent persons are to be explained by two considerations :—(1) the dread of impending death renders a person accused of a capital offence specially amenable to suggestion ; (2) the necessary suggestion is supplied by the persistent assertions and challenges of the accusers. He points out that these conditions are often as well realised by detective methods nowadays as they were by the inquisitors in the time of Cotton Mather. Hence the need of extreme caution in attaching weight to admissions of guilt in capital cases.

Much of the argument is expressed in the terms of a psychology which is personal to the author. W. C. SULLIVAN.

Medico-legal Notes on Three Cases of Sexual Inversion [*Drei Conträrsexuale vor Gericht*]. (*Jahrb. f. Psychiat. u. Neur., B. xix, H.* 2, 1900.) *Krafft-Ebing.*

In Obs. I, a clergyman, æt. 36, was accused of indecency with boys under his care. The accused had a neurotic and alcoholic ancestry, and was himself mentally unstable, emotional, and ethically defective, showing an absolute inability to appreciate the immorality of his conduct ; he presented stigmata of degeneracy. His sexual history began with solitary and mutual onanism, the sexual impulse subsequently becoming directed exclusively to pubescent boys ; there was intense aversion to women. Sexual desire was abnormally strong. The first medical report affirmed that the accused was a degenerate and a sexual

invert, that he had acted in obedience to an irresistible impulse, and was therefore irresponsible. Krafft-Ebing, as delegate of the medical faculty of Vienna, to whom the case was further referred, agreed in this opinion. It is stated that under hydropathic and hypnotic treatment the patient's neurosis considerably improved.

In Obs. II (sodomy), the inversion was not congenital, but was acquired by a degenerate under the influence of alcoholism and neurasthenia. The accused was found irresponsible, and was committed to an asylum, where he is stated to have recovered normal sexual feeling after hypnotic treatment.

Obs. III presents much interest. A police officer, æt. 32, was accused of soliciting to unnatural crime; the facts were insufficient to secure a conviction, but it appeared clear that the man had some homosexual tendencies, developed after contracting syphilis from a woman. Some months subsequent to his trial the accused had an attack of typhoid, followed by influenza. On convalescence he returned to duty, and shortly after more numerous and graver charges of the same kind were brought against him, and on one of these he was sentenced to imprisonment. As, however, he showed signs of alienation, and as it was proved that since the attack of typhoid he had altered in manner, and had become morose, forgetful, and inattentive, he was placed under special supervision. After two months' observation the medical officials reported that he was suffering from cerebral syphilis, causing symptoms like those of general paralysis; he was slightly ataxic, had tremor of tongue, complained of constant headache; he was unable to make simple additions correctly, and his memory was very defective; he professed complete amnesia of his criminal acts. Some months later he was transferred to another hospital for further observation, and there it was noted that the symptoms of dementia were somewhat exaggerated, and that the character of the memory defect was anomalous,—quite recent events of a trivial kind were remembered, while very important incidents in early life were forgotten. After some pressure the prisoner admitted that he had been malingering; but even after this confession he continued to show the same mental symptoms. Further medical examinations still giving conflicting results, the case was referred to the Vienna faculty. As their delegate, Krafft-Ebing, after a detailed examination, reported that the prisoner presented no signs of organic brain disease, and no symptoms of any mental affection liable to cause an obscuring of consciousness at the time of the offence; and that the alleged amnesia and some other of the symptoms were assumed. He considered, however, that the prisoner unquestionably presented the signs of severe neurasthenia, developed as a result of syphilis and typhoid; that he had a genuine sexual inversion depending on this neurasthenia; and that it was probable that the incriminated acts were the outcome of an irresistible impulse—irresistible because control was defective, and because sexual appetite was increased, as it frequently is in the early stage of neurasthenia.

W. C. SULLIVAN.

A Grave Case of Morphia and Cocaine Habit [*Considérations sur un cas grave de morphi-cocaïnomanie*]. (*Prog. Méd., May 12th*, 1900.) *Sollier, P.*

The patient was a medical man, æt. 40; the morphia habit dated back ten years, the maximum daily dose being 3 grammes; the cocaine habit was more recent. When the case came under Sollier's treatment the intoxication was profound; the patient was emaciated; there was diffuse induration of the subcutaneous tissue, and there were numerous ulcers in the abdominal region where the patient injected the drugs; the urine contained albumen, and severe uræmic symptoms had appeared; the hæmoglobin was reduced to 4·5 per cent., and was shown by the spectroscope to be very imperfectly oxidised. The author specially indicates this blood-state, as he considers that the symptoms of collapse on the withdrawal of morphia are due to asphyxia.

The cocaine was stopped at once, and the morphia was rapidly reduced, being entirely suppressed by the sixth day. Sollier finds that this rapid method is quite free from danger, even in the worst cases, provided the desquamation of the intoxicated epithelial elements be vigorously promoted at the same time by purgatives, milk diet, diaphoretics, etc. Within two months the patient had almost returned to normal, except that the hæmoglobin was still a little below the standard.

W. C. SULLIVAN.

Physical Characters of Criminals [*Caratteri di conformazione del delinquenti*]. (*Istituzioni di Antropologia Criminale, Lecture I, Oct.*, 1900.) *Zuccarelli.*

This is the first of a series of lectures for popular audiences. The lectures appear under the title "Istituzioni di antropologia criminale" as a supplement to Prof. Zuccarelli's review "l'Anomalo."

The present lecture, which is prefaced by a letter from Prof. Benedikt, of Vienna, gives an outline of the views of the Italian school on the scope and value of criminal anthropology regarded as a distinct branch of science; and deals with the morphological peculiarities which that school attributes to the criminal.

The author emphasises the fact that stigmata of degeneracy are specially frequent in criminals, in idiots and imbeciles, and in the insane with hereditary taint. He has found from personal observations in the secondary schools of Naples that such stigmata are much more common in unruly pupils than in the well-conducted. W. C. SULLIVAN.

Report of the Committee on Heredity. (*Society for the Study of Inebriety, April*, 1901.)

This is a report by a committee of the Society for the Study of Inebriety on the relation of heredity to intemperance. Besides the main report there are lengthy comments by several of the members, and a separate report by one member.

The main report, which is formulated in a series of numbered para-

graphs, is an endorsement of the views of Dr. Archdall Reid, with one or two somewhat vague and inconsistent reservations.

Dr. Reid's hypothesis, as set out in the report, rests on the assumption that inebriety is reducible to the expression of an excessive "inborn capacity for enjoying the effects of alcohol;" this capacity is heritable as such, and individuals are supposed to differ in the degree in which they possess it "just as they differ in colour, or size, or strength." Natural selection working on this capacity eliminates those who possess it in excess, while those who possess it feebly or not at all survive and multiply. In this way a free development of alcoholism leads to the evolution of a community "immune from drink." A paragraph of some sixteen lines summarises the Committee's views of the alcoholic history of the human race and the present national distribution of alcoholism, and is apparently given as an *à posteriori* proof of the theory.

The Committee is disposed to reject the "speculation" that parental intoxications have any injurious effect on the offspring.

No evidence is adduced in support of these different assertions.

The assumption that a fact of conduct, such as inebriety, can be assimilated to a character of pigmentation gives the measure of the Committee's psychology. The reference to the political groups of modern Europe as distinct "races" with an organic difference in their reaction to alcohol is hardly less singular. The ideas of the Committee on the distribution of alcoholism in European countries, and on the factors which determine that distribution, would be benefited by some acquaintance with statistics.

The report cannot be regarded as a serious contribution to the discussion of this question. W. C. SULLIVAN.

Visualism and the Study of Languages [*À propos du visuélisme et de l'étude des langues*]. (*Rev. Scient.*, *Aug.*, 1900.) *Saint Paul.*

This is a reply to an article in the *Review* of July 14th on the teaching of languages in France. It is important that one should fully realise what is aimed at in the study of a language; Saint Paul says that to students should be given the taste for reading what is printed in the foreign country; that they should be able to follow the scientific, literary, artistic movement in the country. He considers Mr. Laudenbach's opinion that the knowledge of a language from reading alone is rough or insufficient, too exacting, and that the view that we might as well not know a language at all as only possess the visual key is obviously an exaggeration. He also joins issue with him when he sets down visualisers as apathetic. Far from unfitting any one for the possession of a full and complete knowledge of a language, the visual method is a useful preparation. H. J. MACKVOY.

8. Asylum Reports.

Indian Asylum Reports, 1899.

(Continued from p. 201.)

Bengal.

Attention is directed by the Inspector-General to a marked increase in the admissions. The increase was largest at Dullunda, but the superintendent of that asylum cannot assign any reason for it. The excess occurred both among criminals (23) and non-criminals (15). Calcutta and 24-Parganas furnished 52 cases against 27 in 1898. Howrah sent 11, against 3 in the previous year. The superintendent of the Berhampore Asylum cannot satisfactorily explain the excess of 13 in that institution. The increase, however, was not local, but two districts of the Rajshadi Division sent 6 lunatics each, against *nil* in 1898. More lunatics were also received from Jessore and Nadia. At Cuttack, the superintendent attributes the increase to the admission of cases of temporary insanity sent for observation. The small increase at Dacca calls for no remarks. Criminal lunatics must, of course, be admitted into an asylum, but in regard to non-criminal lunatics Government circular No. 42, dated 3rd December, 1891, enjoins on the local authorities that greater discrimination should be exercised in sending a lunatic to an asylum. Although the increase in the number of admissions during 1899 was unusually large, it will be easy to suppose that the instructions of Government were not fully carried out. If, however, the admissions during the current year show an increase, the attention of the magistrates can be drawn to the circular quoted above.

The increase in discharges was general. At Dullunda, it was partly due to the fact that a large number of cases found sane on admission were either sent to stand their trial, or made over to their relatives; and partly to greater efforts made to find out the friends of harmless lunatics, and to induce them to take charge of them.

The accommodation remained unchanged in amount, and was sufficient in all the asylums except at Dacca, where there was some overcrowding in the female division towards the latter part of the year. This has since been relieved by the transfer of four females to the Dullunda Asylum.

The types of insanity of the lunatics admitted during the year were—

Idiocy		11
Mania, acute or chronic	Epileptic	3
	Other forms	125
Melancholia, acute or chronic	Epileptic	2
	Other forms	37
Dementia, including acquired (other forms)		6
General paralysis of the insane		2
Delusional insanity		12
Declared to have recovered or not yet diagnosed		22
Total		220

The alleged causes were—

Ganja smoking	44
Use of bhang	1
Spirit drinking	6
All other intoxicants	1
Fever	3
Heredity	13
Epilepsy	5
Congenital	1
Childbirth	2
Total	76

As to ganja smoking the Inspector-General remarks:—There were 44 cases due to ganja smoking, against 21 in 1898. Fifteen were returned from Dullunda. The superintendent says all the cases were verified by evidence given either by the patients themselves, their relatives, or by the committing officers, in addition to the statements made in their medical history sheets.

At Dacca, 12 cases were admitted in which ganja was alleged as the cause of insanity, but the superintendent instituted further inquiries, the result being that in only 6 cases was it established. The superintendent observes that in nearly all cases of insanity there are mixed causes producing it.

Six cases were reported at Patna. The superintendent says the medical history sheets of the lunatics and their own admission left no room for doubt as to ganja being the cause of insanity.

There were 8 cases at Cuttack, two criminals and six non-criminals. The particulars furnished in each case showed that ganja was the cause of lunacy. Four of the 8 cases recovered during the year, the maximum and minimum period of detention being a month and five days respectively. Insanity due to ganja is generally of short duration, and there is a greater tendency to recovery in such cases.

Nine cases were reported from Berhampore. The superintendent made careful inquiries in each case through the committing magistrates before accepting ganja as the cause. He remarks that recovery in such cases generally followed on rest and abstinence from the drug. Of the nine admissions nearly 50 *per cent.* recovered.

Notwithstanding the remarks made in the report of the Inspector-General for last year, and those of the Government made in paragraph 5 of its resolution recorded thereon, there has been no improvement in the filling up of the medical history sheets. These are very important documents for the guidance of the superintendents, but there seems to be still great want of care in their preparation. One of the superintendents remarks that the medical history sheet was not furnished in 23 cases.

Another reports:—The usefulness is marred by the careless and perfunctory manner in which it is still prepared. At times they are sent unsigned, resulting in much unnecessary correspondence. If the committing officers were addressed by Government on the subject the irregularities now complained of would disappear.

The infirm-gang system was introduced at Berhampore during the year, but the superintendent says no special results followed. The superintendent of the Patna Asylum also reports that no marked advantage resulted from the establishment of the infirm gang. In the report of the Inspector-General for 1898 he pointed out that the system simply means that weakly-looking persons are more frequently weighed, and receive some extra diet, tonics, and drugs, the advantage being that it serves to keep off serious disease. This result was attained at Dacca, and the superintendents of the other asylums will be asked to give it an extended and thorough trial.

At Dullunda a watchman's clock was purchased to regulate and check the nightly rounds of the jamadars.

The matter of amusements received the special attention of the superintendents. The lunatics were provided with musical instruments, cards, pet animals, and birds, and were entertained with *nautches* and other amusements. Sweetmeats were also distributed on festival days. At Dacca, the authorised *pujas* were held. The superintendent of the Berhampore Asylum states that those who can read are provided with books. He says there is one lunatic now in gaol after recovery who learnt to read and write in the asylum. Others are also being educated in the asylum, which, the superintendent says, might be further advanced by the attendance daily of a paid schoolmaster. The Inspector-General does not think the latter arrangement is at all necessary. The provision of books and papers and the education imparted to a recovered lunatic is sufficient for all practical purposes. In Calcutta, the best conducted lunatics were taken to the Zoological Gardens. At Dacca, such lunatics were allowed to go to the bazaar under proper escort. The superintendent says that lunatics who do not work and will not take exercise of their own accord are taken out morning and evening for walking for two hours. He attaches great importance to this system, and attributes much of the satisfactory results during the year under report to this arrangement, and to keeping the lunatics as much as possible in the open air. At Cuttack and Berhampore, the system of giving regular walking exercise to the lunatics outside the asylum was kept up during the year. This was not done at Patna, as the neighbourhood is crowded and insanitary, and is another good reason for the removal of the asylum.

The question of the formation of a central lunatic asylum for Bengal was considered during the year. The Inspector-General suggested that the asylum should be located at Berhampore, which was a better place, in his opinion, than others which had been proposed, from a sanitary point of view. Moreover, there was plenty of room near the existing asylum, which might be extended for the purpose. After much consideration and examination of the different sites, as well as careful investigation of statistics, etc., this situation has now been approved by Government, and plans and estimates have been prepared for the additional buildings which are required.

In last year's report, the Inspector-General remarked that the question of improving the position of the warders was carefully considered, but no satisfactory conclusion was come to, mainly on the ground of expense. The subject first attracted his notice during his inspection

of the asylums, and he suggested the improvement of the position of warders, as a good staff of keepers is one of the conditions of success in the administration of lunatic asylums. The Director-General, Indian Medical Service, in paragraph 20 of his notes on the Reports on Lunatic Asylums in India for the year 1898, suggests the abolition of all forms of restraint, and sees no reason why the Indian keeper should not be improved as the modern English warder has been. The ideal should certainly be aimed at, and the Inspector-General has drawn the special attention of the superintendents to his remarks; but, as he observes, it will call for extra expenditure, which at present stands in the way of securing suitable men for such work.

Central Provinces.

The Superintendent of the Jubbulpore Asylum remarks: "To prevent this overcrowding I think it necessary that more attention should be paid to the suitability of cases sent to the asylum. Chief Commissioner's Book Circular, No. XXXI, dated October 5th, 1877, points out that in the case of harmless lunatics nothing is ordinarily gained by transfer to an asylum. The asylum is meant for dangerous and violent cases. I have several cases in the asylum who are not likely to gain any benefit, and should not, I think, have been sent to the asylum. In one case the report says that the man was found wandering and did not talk rationally, but was not dangerous to himself or to others; the man was a professional beggar. He is at present in the asylum, perfectly harmless, quiet, and inoffensive. Another case, a female professional beggar, was sent to the asylum with no real history of insanity. On arrival at the asylum she was very anæmic and was silly. There are at present in the asylum ten men and seven women who should not have been sent, and who will never benefit by being in the asylum. They are more fit for the poor-house."

At the Nagpur Asylum, as many of the inmates belong to the cultivating and labouring classes, a large number were employed on dairy farming and gardening, while one or two, who had previously been clerks, were given light work in the asylum office. Books and writing materials were provided for those who could read and write, and musical instruments for those who wished to have them. A certain quantity of tobacco was given to all, and an extra allowance to those who were well-conducted.

At Jubbulpore Asylum a great form of amusement is farming and gardening. A native band has been got up amongst the inmates with the aid of a few musical instruments, and the superintendent states that it is very interesting to watch the faces of the lunatics while the playing and singing is going on. Pets are also allowed in the shape of birds and cats. *Pachhisi* is a favourite game among the uneducated, while books and papers, English and vernacular, are supplied by the deputy superintendent to those who can read. Some forty selected lunatics were taken to the Great Indian Circus, which performed near the asylum; they were given free tickets by the manager.

The majority of the cases admitted into the Jubbulpore Asylum are

in a poor state of health, while the old patients have been particularly healthy. It is certainly peculiar that the lunatics should be so free from sickness, especially as the majority of them eat dirt. One will swallow lumps of chuppaties without mastication, others have to be forcibly fed for years. A great many with difficulty are made to keep clothes on, even on the coldest days. If the same condition happened in the gaol what would the sickness be?

The following was given daily to the lunatics from the beginning of May to November:

Cinchonidine . . .	gr. ij.
Ferri Sulph.	gr. j.
Acid. Sulph.	ɱv.
Aqua	ʒj.

With regard to antiscorbutics, the lunatics have an almost unlimited supply of fresh limes, tamarinds, bael, guavas, and plantains, which they obtain from the garden; and as most of them work in the garden, they eat and bring in to others.

There is a Hindu temple and a mosque in the grounds. The Hindu temple is supplied with a set of articles for performing the poojah, viz., Shankh, Jhalar, Vijaya-Ghant, and a bell, and when this bell rings a man who has been contented to lie in the mud will jump up and rush to the shower-bath and wash, put on his clothes, and go to the temple.

Madras.

The escapes were one female criminal from the Madras Asylum, who was recaptured after a fortnight; two male civil insanes from the Vizagapatam Asylum, both recaptured; and one male civil lunatic from the Calicut Asylum, still at large.

The escape of a non-criminal insane is a matter of little or no consequence, for so long as he can elude discovery and take care of himself there is in most cases no particular need for his detention. There is always a suspicion that in asylums where such incidents never occur restraints are more rigid than are compatible with conditions best suited for the recovery of the inmates. It is different with criminal insanes, who should, at any rate until the probationary stage is reached, be as carefully guarded as ordinary prisoners.

Fortnightly weighments were made throughout the year. The following table compares the weighments in the three asylums:

Asylums.	Of those admitted during the year—*cont.*				Of those discharged during the year.			
	Number and ratio per cent. of those who lost weight.	Number and ratio per cent. of those who remained stationary.	Greatest gain.	Greatest loss.	Aggregate weight on admission.	Aggregate weight on discharge.	Number and ratio per cent. of those who gained weight.	Number and ratio per cent. of those who remained stationary.	Greatest gain.	Greatest loss.
			lb.	lb.	lb.	lb.			lb.	lb.
Madras . . .	31 34·06 %	6 6·59 %	30	13	8947	7376	58 65·91 %	24 27·27 %	44	22
Vizagapatam . .	1 12·50 %	—	26	25	645	758	7 100 %	—	26	—
Calicut . . .	3 9·38 %	—	26	13	1917	2089	18 90·00 %	2 10·00 %	29	7

Asylums.	Of those treated during the year 1899.							Of those admitted during the year.	
	Aggregate weight on 1st January, 1899.	Aggregate weight on discharge, death, or on 31st December, 1899.	Number and ratio per cent. of those who gained weight.	Number and ratio per cent. of those who lost weight.	Number and ratio per cent. of those who remained stationary.	Greatest gain.	Greatest loss.	Aggregate weight on admission.	Aggregate weight on discharge, death, or on 31st December, 1899.	Number and ratio per cent. of those who gained weight.
	lb.	lb.				lb.	lb.	lb.	lb.	
Madras . . .	39,416	35,884	198 51·83 %	142 37·17 %	42 11·00 %	26	22	9242	7872	54 59·34 %
Vizagapatam . .	6,159	6,283	35 56·45 %	15 24·19 %	12 19·36 %	21	17	798	868	7 87·50 %
Calicut . . .	10,525	10,925	81 76·42 %	14 13·21 %	11 10·37 %	29	35	3090	3327	29 90·62 %

Punjab.

Taking the two asylums together, it is observed that while at the Lahore Asylum most of the admissions were Mohammedans, at Delhi they were mostly Hindus. This is probably due to the fact that the Mohammedan religion prevails in the north of the Punjab, and the Hindu religion in the neighbourhood of Delhi. It is also noticeable that the patients came mostly from among the following classes:—cultivators, agriculturists, beggars, labourers, and sepoys. Mania and melancholia were the principal types of insanity admitted. Charas smoking, toxic and moral causes, were the chief predisposing influences.

The year 1899 is the last one for which the report will embrace the statistics of two asylums. The new lunatic asylum for the whole of the Punjab has been completed and brought into use.

Rangoon.

The lunatic asylum was in charge of Major Bell for nine months of the year under report, and for the remaining three months the office of superintendent was held by Major Sellick. Mr. Donaldson was deputy superintendent until October, when Dr. Paul was appointed to that post, as it was thought desirable to employ a professional man. The change has not been beneficial to the asylum, and fresh arrangements will again have to be made. The asylum has been unfortunate in its superior subordinate staff, as the sub-overseer is also reported to have proved unfit for his post. An important feature in the history of the asylum was the reorganisation of the subordinate establishment. A matron was appointed to take charge of the female enclosure, while the staff of warders was divided into a day establishment and a night establishment, and five male warders and three female warders were added. The result of the revision has been to provide a larger and more efficient staff at an increased cost of Rs. 2142 *per annum*.

A mortuary nearer the new hospital occupied in 1897 was put up during the year on a site more suitable than that on which the building formerly serving this purpose stood. Iron gratings have been fitted into the opening in cells through which night-soil buckets are passed. This addition was necessitated owing to two of the inmates having effected their escape through the openings.

The accommodation for females has been unsatisfactory, and in order to avoid overcrowding it has been the practice to place some of the older women in cells in the male portion of the asylum during the night. To obviate this objectionable necessity an additional cottage to hold twelve females has been recommended and is now under course of construction, but even with this enlargement of accommodation there will still be some overcrowding.

The dry-earth system of conservancy is carried out. The night-soil, after being received in tubs, is mixed with dry earth and then trenched in the asylum grounds. The ground used for trenching in 1897 has been cultivated during the last year, and the ground so used in 1898 will be cultivated this year. The result of cultivation of the 1897 ground was highly satisfactory, and excellent crops were obtained.

Special attention is paid to the cleanliness of the lunatics themselves, and the patients are all bathed daily. On account of the position of the asylum on naturally sloping ground the drainage of the institution offered no difficulties.

Fresh vegetables were supplied from the asylum garden to the inmates during the whole year, with the exception of the months of November and December. During these months it became necessary to purchase vegetables from an outside contractor once or twice a week. The milk for the sick has been entirely supplied by the asylum dairy.

The lunatics are encouraged in every way to get up amusements amongst themselves. Games of Burmese football are duly indulged in. In addition, playing cards, Burmese dominoes, and draughts have been supplied and are much appreciated. During the year fourteen *pwès* (theatricals) have been held in the asylum; they are self-supporting and very popular.

A small library has also been started and two daily papers, one in English, the other in Burmese, have been subscribed for. The money for these amusements is obtained from the profits derived from the *pwès*. A matron was appointed to the charge of the female enclosure in the latter part of the year. The want of an appointment of this nature had long been felt, and a considerable improvement in the condition of the female lunatics is already noticeable.

The commonest types of lunacy met with are mania and melancholia, the former disease accounting for 51 *per cent.* and the latter for 27 *per cent.* of the total population of patients. These figures approximate closely to those obtained from the returns of lunatic asylums in England and Scotland, which are roughly 56 per cent. for mania and 30 *per cent.* for melancholia. The percentage as obtained from the Rangoon Asylum is therefore slightly lower than those of England and Scotland, but in the latter countries it is probable that the onset of lunacy is more quickly recognised and treatment in asylums resorted to more early than in this country, and so the totals there get swelled by the admission of a greater number of slight cases. General paralysis of the insane provides but one case; this is in accordance with the experience of experts in lunacy, who state that this form of insanity is exceedingly rare amongst Asiatics.

General paralysis of the insane appears to be caused by any mode of life in which the brain is unduly stimulated, more especially when combined with the effects of excesses in drinking. The rural Burmans will naturally escape these causes, and though the Burmans living in large towns do drink at times heavily, and also are undoubtedly widely affected with syphilis, they do not, it is considered, exercise their brains unduly, there being no such acute struggle for existence as occurs in England.

Tezpur.

The grounds are nicely laid out, and the garden is flourishing. Nearly one acre was planted with castor-oil seeds, but unfortunately the plants were all destroyed by the unusually heavy rains. Sixty good *Kaghazi* lime trees have been planted and are doing well. The

number of lime trees should be raised until it equals the number of inmates, and thus 10 *per cent.* should be planted annually to make up for losses.

A new ward for females has been constructed during the past year and is now in use. This is a great comfort. A small hospital for women is still required. A hospital for men is very much needed, and it is hoped that funds may be available next year. A small isolation ward is also required for male criminals, in which dirty cases could be kept. The intolerably filthy habits of some of these poor wretches make them most dreadfully disagreeable companions at night-time, and a small ward for their isolation is a necessity.

A prophylactic issue of quinine and iron was given from May to October to all the inmates, except a few fractious individuals, and it certainly seems to have done good. Four grains of quinine with two grains of sulphate of iron and ten minims of dilute sulphuric acid were given every day in the morning before they went to work.

Attention is paid to giving amusement to the patients by showing them magic-lantern pictures and by music, and a microscope has been purchased at a cost of Rs. 45—47 to enable the hospital assistant in charge to diagnose cases of *anchylostomiasis*.

The *Kutcha* buildings for male lunatics are a constant source of anxiety, as they may be set on fire at any moment by maliciousness or carelessness on the part of some lunatics—an occurrence which would probably cause a terrible loss of life. Lunatics also find no difficulty in escaping from them. They ought to be replaced as soon as possible by zinc-roofed buildings. Constantly renewed dry sand is used on *Kutcha* floors to prevent dampness.

In addition to those already maintained during the previous year only one keeper, a female, was appointed in the month of December. Although there was provision in the budget for three female keepers one could not be procured before December.

With reference to paragraph 20 of Notes by the Director-General, Indian Medical Service, on Asylum Reports for 1898, the superintendent points out that the sanctioned pay for warders is not such as to attract really suitable men. A warder gets Rs. 10 per mensem, while the wages of the coolies working in the town amount to annas 6 per day, or roughly Rs. 12 per mensem. The work is also very hard; the warders remain present day and night, and have only four hours off duty in twenty-four.

Report of the Lunatic Asylum at Aarhus for the year 1899. *By the Physician-Superintendent, Prof. Knud Pontoppidan.*

In this report the distinguished Professor confines himself mostly to statistical details. In the beginning of 1899 there were in the asylum at Aarhus 257 male patients and 269 female patients—526 in all. During the year there were admitted 55 males and 72 females—127 in all. There were treated during the year 312 males and 341 females—

653 in all. The daily average under treatment was 247 males and 253 females. There were dismissed 77 males and 98 females.

	Men.	Women.	In all.
Recovered . .	26 ...	30 ...	56
Improved . .	24 ...	37 ...	61
Incurable . .	10 ...	9 ...	19
Died . . .	17 ...	22 ...	39
	77	98	175

Of those recovered, the largest number—amounting to 21—had been detained but six months; 45 out of the whole 56 had been under treatment for less than a year. Amongst the deaths falling between the ages of 90 and 100, we find one man. W. W. IRELAND.

Report of the Provincial Asylum of Alt-Scherbitz [*Verwaltungs bericht der Provinzial-Irren-Anstalt zu Rittergut Alt-Scherbitz. für die Jahre* 1898–1899 *und* 1899–1900].

In this report the superintendent, Dr. Paetz, proclaims that after two years the number of medical men who have visited Alt-Scherbitz is as great as ever—about 215 strong. Whole commissions have also come for instruction from Edinburgh, Liverpool, Bremen, and other places in Germany.

The number of patients cared for during the year 1899–1900 was 575 males and 429 females—a slight increase upon the preceding year. There were 264 admissions—154 males and 110 females. The recoveries were 18 males and 25 females, the deaths 53 males and 21 females. This gives a proportion of 9·2 for the men, and 4·9 for the women. The greater mortality amongst the men was owing to general paralysis, which gave 35 deaths—66 per cent. of the whole. The number of admissions from this form of insanity is much increasing; in the last year reported upon it amounted to 42 per cent. The report is mainly made up of statistical tables. W. W. IRELAND.

Some English County Asylums, 1900.

London County Council Asylum.—The report of this body rapidly increases in size, and we may say value. Everywhere is apparent a desire to carry out the great trust committed to the Council in a careful and whole-hearted manner. As time goes on, the immense bulk of statistical information now gathered together and co-ordinated cannot fail to have a weight which could never attach to the figures of any individual asylum, or group of asylums, drawing their population from heterogeneous resources. The administrator will find plentiful material to help him in building, equipping, and managing a new institution.

Liberality in the treatment, both present and in the future, of the staff is proved, and we recognise gladly that the London County Council has mastered the fact that such treatment is necessary in getting together, and keeping together, an efficient body of employés.

The Asylum Committee states that it has not been able to make arrangements to reduce the hours of duty, but, by the desire of the Council, it is giving further attention to the matter.

The number of pauper patients had increased by 416 in the year under report, viz., to March 31st, 1900. This number is below the average, but several patients have been removed from the pauper to the private class. We note that to qualify as a private patient the payment of the bare cost of maintenance is sufficient, rent, we suppose, being omitted. The reason for this view is not very apparent, while it must give an enormous amount of extra clerical and administrative work.

The building of the new asylums proceeds apace, and the Committee have only 1295 patients boarded out in other asylums and licensed houses, against 2492 in the previous year. Gathering in the difference of nearly 1200 saved the county £53,000. It is hoped that in the next year or two reception-contracts will have come to an end finally.

The Committee have under consideration the establishment of receiving houses to take the place of workhouse lunatic wards. A report on the subject is promised, but meanwhile no indication is given as to the fundamental principles which shall underlie the venture.

A large amount of money seems to have been made out of the Croydon patients who were retained after the expiration of their contract. The charge of £2 2s. per patient per week was made. This, though apparently enormous, is perhaps justifiable by the fact that the Council has had to pay the same amount for boarding-out patients who could have been received in the home asylum had it not been for the belated removal of the London patients. But the case affords a good illustration of a state of things which may well be called iniquitous, and which, it is hoped, will be remedied when the new Bill becomes law. Croydon paying £2 2s. per patient yields a handsome profit, which passes into the pockets of the County Council. Other patients have to be kept out, and for them the guardians have to pay this high price, being allowed by the present Act to receive only a small rebate from the County.

The Committee report with satisfaction, which we think is warranted, the acceptance by the Lord Chancellor of a new clause for his Bill. Under its provisions patients may be boarded out singly for profit, the Committee being permitted to pay any sum greater than the maintenance rate without any consent on the part of the guardians of the parish from which he was admitted. But the Committee will have to find the amount so paid which exceeds the maintenance rate for the time being. While dealing with legislative proposals, the Committee state that they are opposed to the idea of giving a county council power to appoint a proportion of the Visiting Committee from outside its own body. It is difficult to imagine any particular reason for such a proposal; in fact, it might be said to be a dangerous departure. Just now local authorities are in many instances called upon by their Visiting Committees to pledge their ratepayers to a considerable expenditure, which we know to be in most instances for the advancement of the treatment and care of the insane. We can well imagine that county councils would be more critical of proposals for such expenditure which came from composite bodies.

The Committee evidently appreciates the good work done by the medical staff in training the attendants and nurses.

Among the general tables is one in chart form, which gives a large amount of information on the amount of lunacy in the area, compared with general pauperism, etc. It is here shown that at the commencement of 1889 the Council was responsible for finding accommodation for 10,000 patients, but only had it, including reception contracts, for 8500. At the end of 1899 the reception figures were 15,163 and 14,854. Another table shows that of 5540 patients discharged recovered during the last five years no less than 1296, or 23·82 per cent., relapsed, and were re-admitted; and of them 731 returned within twelve months of their leaving.

The recovery rate at the older asylums was a high one. Excluding transferred cases, Hanwell claimed 43·72, Colney Hatch 46·12, Banstead 40·57, Cane Hill 35·85, Claybury 39·64. The average death rate for the combined asylums was 8·97, against 10·2 in all county and borough asylums. On turning to Table V for the chief causes of death we are surprised at the difference in classification between the various asylums—a difference which prevents a summarisation of returns from all. Surely the importance of the table would suggest a uniformity which, desirable as it is on medical grounds, is equally necessary for the instruction of the lay mind of the administrator.

The chief divergence arises at Banstead, where but little attempt is made to follow the classification devised by the Association and almost universally accepted.

We notice, too, that at the Heath Asylum a separate group is introduced to include paralysis in various forms—paralysis of the insane, toxic, alcoholic paralysis, and meningitis, cerebral. In the latter asylum the number of post-mortem examinations is not recorded. At Hanwell, Colney Hatch, Cane Hill, Claybury, and Horton, the combined average proportion of post-mortem examination to deaths reaches the satisfactory figure of 90 per cent.

It is somewhat remarkable to find in the summary of Table VIII that three patients were admitted between five to ten years of age, of whom one recovered and one died.

The remarks made as to Table V apply equally to Table X, but we think that a little adjustment, even by a lay enumerator, could have surmounted the difficulties arising from non-adherence to form. It is a pity, and further, it is an unnecessary hindrance to those who wish to study arithmetical facts that are, after all, common property.

On adding together the figures relating to alcohol, we find that in all the seven asylums the proportion of admissions assigned to this cause was 15·7. The greatest variation above the average was 23·6 in the case of Bexley, and below 12·9 at Claybury. By sexes—the male cases of alcoholism were just about 20·0 per cent., the extremes being, at Bexley 40 per cent., and at Horton less than 5 per cent.; the female cases 12·4—the extremes 15·1 at Colney Hatch, and 9·5 at Horton.

The averages for all England pauper cases, as given in the Commissioners' tables, is male 22·4, and female 9·4.

Of the 3936 admissions recorded in this table, 17 per cent. had suffered from previous attacks. We do not attempt to analyse the

figures relating to hereditary predisposition, since any result arrived at can be but an instalment of the actual truth.

The cases of general paralysis admitted numbered 262—185 males and 77 females.

It should reassure those alarmists who fear improper certification and detention of sane persons, that only 1 case out of 4555 admissions was returned as not insane.

Dr. Claye Shawe points out that of the 441 admissions to Banstead, no less than 105 had been in some asylum before, which fact he thinks considerably discounts any satisfaction from a recovery rate of 40·5 *per cent.*

At Cane Hill, mention is made of course of the sad attack made on Dr. Moody. We are glad to note not only his recovery, but also the warm recognition he makes of Dr. Ireland Donaldson's execution of the work which was thrown on him as acting superintendent.

At Claybury, Dr. Robert Jones points to the influence which indoor occupations, sedentary or the reverse, have in causing insanity—tailors, bootmakers, compositors, upholsterers, machinists, milliners, and dressmakers, all contributing largely to the admissions. He had to discharge two patients for a reason which is novel, and which hardly occurs elsewhere. The orders were made out to all the London asylums, and not to a specified one. This was held by the Commissioners to invalidate. He sends "shopping" parties into the village, and promotes female patients visiting each other in different wards on Sundays and wet days. These are both excellent ideas.

At Colney Hatch, 69 Jews (in the previous year 89) were admitted, most of whom were Russians or Poles—not a very pleasant element in the anxiety caused by 591 admissions for the year.

Dr. Alexander states that, contrary to general experience, female relapsed patients are admitted in a considerably less proportion than is the case with the males. The average interval of sanity was for males 3 years 1 month, for females 3 years 4 months. The extremes were between 8 days to 22 years, and 13 days to 21 years respectively.

It is odd to read that at Hanwell there should be reason on the part of the Medical Superintendent to regret a large return of mechanical restraint, but as this was in respect of a few cases which could not be made safe without it, regret on our part is replaced by a feeling of satisfaction that, given the necessity, false reasoning and false sentiment are not allowed even here to prevail in the execution of a primary duty to the patient and to his neighbours. Dr. Alexander is to be congratulated on his courage in recording the fact, in the face of the prevalent idea that restraint, even when applied in circumstances of imperious necessity, is a deadly sin.

At Bexley Dr. Stansfield is taking great pains to ascertain and record the presence of stigmata of degeneration in those admitted, and he gives some very interesting particulars. In no less than 22·8 *per cent.* of the males and 6·6 *per cent.* of the females, syphilis could be assigned as a predisposing determining cause of the insanity. In one case, in spite of denial of specific disease, and in the absence of any of its usual signs, local or general, a gumma was discovered post mortem. The case had been the subject of several conferences, and Dr. Stansfield

quotes it to illustrate the ease with which syphilis can be overlooked even when sought for.

Dr. Mott makes a report of the pathological work carried on in the laboratory at Claybury, from which it is evident that he has many and capable fellow-workers. He adverts to the invasion of colitis, the facts about which are still under discussion. Syphilis, tubercle, and alcohol are subjects of close study in relation to insanity.

The information given by the asylums' engineer, Mr. Clifford Smith, in his separate reports on each asylum is most interesting and will well repay perusal.

Some Scottish District Asylums.

Fife and Kinross.—Dr. Turnbull writes that the hospital section has well fulfilled its purpose, but is now too small by reason of largely increased admissions and accumulation of special cases. He states that great benefit to the patients has arisen from the adoption of an extended and more efficient system of night supervision. After two years' trial he finds it more economical to provide milk on the premises rather than to buy it by contract, and from a shorter trial he finds the same result from killing his own meat.

Glasgow, Gartloch.—In forty cases examined post-mortem Dr. Oswald found active or quiescent tubercle in no less than twenty-six. The acute cases are isolated as far as possible in the infectious blocks.

A new nurses' home and a shifting of male attendants has set free a certain amount of accommodation; yet Dr. Oswald is advising his committee to set about building soon.

Just seventy-five *per cent.* of the patients are registered as daily engaged in useful occupation. Twelve female patients and two nurses are regularly employed in the garden. Eighty patients out of an average residence of 470 have parole.

We note that general paralysis is assigned as a cause of insanity, and we find that Dr. Campbell Clark follows the same practice, but while the latter applies it to all his five cases of that disease admitted, Dr. Oswald returns only ten out of his twelve as thus caused. It would be interesting to know what are the grounds for this differentiation, and we may express a doubt whether this disease itself is not such a recognised entity as to forbid its physical elements being thus dissociated from the mental. It seems to us that, as in this report 211 causes are given for 211 admitted cases, the causation of the general paralysis cases must be excluded.

Another class of cause also seems to us to be not free from doubt—exacerbation of existing attack. This may be a cause of admission, but hardly a cause of the mental condition necessitating such admission.

Glasgow, Kirklands.—Dr. Skeen gives a curious and amusing case of a girl who was out on probation, and, not returning in time, had to be discharged as an escape. She left her friends, procured male attire, and hired herself out as a baker's lad, and worked well as such. When her sex was discovered she moved on to a baker's near the

asylum, where her sex was again discovered, and she was taken into private care by philanthropists. She was doing well.

We are glad to see that Dr. Skeen keeps up the Association's statistical tables in strict form on the whole. His table of causation is, however, not very clear and useful.

Inverness.—Dr. Keay reports that influenza does not decrease in severity. It year by year takes a more prominent place in his tables, both as a cause of insanity and of death. In 150 admissions it was assigned as a cause in 13 cases. He speaks sorrowfully of tubercle. During five years—1895 to 1900—195 deaths occurred, and 184 post-mortem examinations were made—a most creditable proportion. In 36 per cent. of the deaths tubercle was found, and in 31 *per cent.* there was advanced pulmonary consumption. He very rightly gives his Board full and valuable advice on the prevention of tubercle, with which we fully agree. His remedy is a fat diet, elbow room, and fresh air to encourage resistance and prompt isolation when signs of infection are found. He asks for isolation wards accommodating twenty of each sex.

We note that he discharged one female general paralytic as recovered. Only one case was admitted out of a total of 150. Over 30 *per cent.* of the latter had had previous attacks. Intemperance was assigned in less than 10 *per cent.*, while entrance into sexual life, departure from it, and senility claimed 10, 5, and 7 *per cent.* respectively.

We feel that we ought to congratulate Dr. Keay on the good use of the time he has spent in remodelling the Institution. Dr. Frazer reports, "very pleasant recollections were left by the visit, both as to the general management of the asylum, and the great improvements which have been effected in recent years."

Lanark, Hartwood.—Dr. Campbell Clark also deplores the severe inroads of influenza in a virulent form; the lungs of those attacked suffering more seriously and more frequently. At one time seven nurses were down with it.

The Commissioners' report contains the following:

> The family grouping of the men and women at the tables has now, evidently, become an organised system in this Asylum, and it certainly appeared to be not only free from objection, but visibly to detract from the stiffness and monotony of the ordinary method of rigidly separating the sexes in asylum dining halls. A patient of superior intelligence, generally a female, presided at each table, and manifested a certain appearance of solicitous supervision over the welfare of her companions during the meal.

Midlothian and Peebles.—This is the only asylum, we believe, that issues a report with no statistical tables at all; the only information of the kind being a few figures in the medical superintendent's report.

> Suicidal tendencies were present in eleven cases, and of these seven had attempted suicide. One of the male would-be suicides—an Irish labourer of low type—had heard a "voice" (an auditory hallucination) in one of his ears ordering him to cut out his testicles. Another "voice" in the opposite ear countermanded the first "voice," but nevertheless he obeyed the former, and cut out both his testicles in the same way that he had seen the operation performed on sheep or pigs. He was found lying in a collapsed and helpless condition, and was first removed to the Royal Infirmary, Edinburgh. After a few days he was brought here. The wounds ultimately healed well, and the man's physical condition has improved very much. This patient confesses to have been a confirmed drunkard, and his father and brothers seem also to have been drunkards.

Stirling, Larbert.—Dr. Robertson speaks highly, and we feel rightly, of the beneficial influence of women nurses in the male wards. Twelve females are now on day and night duty with suitable male patients. He rightly points out that conditions have changed of late years, and what was formerly impossible is now not only possible but desirable. It is idle to expect insanity to improve itself, it can only be improved by imported influences, and such are the ministrations of females. Dr. Robertson, though in this matter only following out well-established principles evolved by himself and others, has gone further than anyone in appointing a matron as head of the male department, with an experienced attendant as assistant. He points out that a woman can do more than a man in looking after the furnishing and brightening of the wards, and in supervision of nursing and in ensurance of economy. But we are not quite satisfied that the average under-attendant can be efficiently controlled by female force. However, if Dr. Robertson proves after a year or two of experience that he can be, so much more credit to him.

Notes and News.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

General Meeting.

A General Meeting was held at the Rooms of the Association, London, on Thursday, May 23rd, 1901.

Present: Drs. Fletcher Beach (President), Robert Jones, C. Mercier, A. Miller, H. T. S. Aveline, R. D. Hotchkis, C. H. Bond, A. W. Campbell, J. Carlyle Johnstone, T. S. Sheldon, H. Benham, T. D. Greenlees, P. W. Macdonald, R. Percy Smith, Crochley Clapham, A. N. Boycott, J. B. Spence, J. Chambers, G. S. Elliot, G. A. Watson, J. B. Cooke, J. G. Soutar, H. J. Macevoy, W. Kingdon, J. W. Evans, Evan Powell, W. Beattie Smith, D. Fleck, J. S. Bolton, H. E. Haynes, F. Edridge-Green, C. S. Morrison, T. B. Hyslop, E. W. White, W. C. Sullivan, W. H. Kesteven, J. C. Gayton, R. Legge, C. K. Hitchcock, H. H. Newington, W. Douglas, D. Bower, D. Nicolson, J. M. Ahern, H. Smalley, R. J. Stilwell, R. N. Paton, J. Scott, F. St. John Bullen, J. E. M. Finch, A. J. Alliott, W. D. Moore, H. Stilwell, J. Sutcliffe, S. A. Gill, J. Baker, L. A. Weatherly, M. J. Nolan, E. S. Pasmore, H. C. MacBryan, G. H. Johnston, G. H. Savage, H. Kershaw, E. France, M. Craig, J. P. Richards, T. Outterson Wood.

Visitors: Rev. R. D. Swallow, Sir Herbert Stephen, Bart., Messrs. Montague H. Crackanthorpe, K.C., S. G. Lushington, Shadworth H. Hodgson and T. R. Bridgwater, Dr. H. B. Donkin.

The President read the acknowledgment from the Home Secretary of the address to the King. It was agreed that this should be framed and kept in the Rooms of the Association.

The President directed attention to the microscopic slides showing the condition of nerve-cells and association fibres in cases of idiocy and juvenile general paralysis, exhibited by Dr. Watson. To himself, personally, the exhibition was highly interesting, and he was glad to have this evidence of the scientific work which was being carried on by the younger members of the Association.

The following candidates were balloted for and elected members of the Associa-

tion:—John Richardson Ambler, Adéle De Steiger, T. G. Elsworth, John J. Fitzgerald, Galbraith Hamilton Grills, B. Henry Shaw, and Albert Wilson.

Dr. MERCIER read a paper on "Punishment" (see page 511).

The PRESIDENT welcomed the visitors, and expressed the pleasure he felt in inviting them to take part in the discussion.

Dr. PERCY SMITH read a paper on "A Case of Epileptic Homicide" (see page 528).

SENILE INSANITY: IN WHAT INSTITUTIONS SHOULD IT BE TREATED?

Dr. D. G. THOMSON, in opening a discussion on this subject, said: It is a common complaint made by the writers of asylum annual reports that asylums are being overcrowded largely by the increasing number of doited old people, who are no longer cared for in the workhouses and infirmaries, but are sent to the county asylums, and many asylum medical officers protest against these cases being sent to the asylum. I contend that such complaint is not justifiable, and that for the following reasons.

Firstly, let me say that I compute such senile cases to constitute from 10 to 15 per cent. of the total number of patients in any asylum. This is the usual number arranged for in the infirmary or "aged and infirm" ward of any asylum. It will thus be seen that after all the total number of such senile cases is not very great. Also, that I fail to see what the objections are to the admission of senile cases to asylums, for surely the proposition that they increase the death rate of the particular asylum, reduce its recovery rate, and that they, generally speaking, are unpromising cases, applies with equal force to general paralytic and epileptic cases.

I consider that a county asylum is the proper receptacle for *all* cases of unsound mind occurring in the poor of that county, and I use the phrase "of unsound mind" in its full comprehensive sense to include those who never had a mind, those whose mind is deranged, and those who have lost their minds, whether by secondary dementia or senile dementia. Senile dementia is as much a form of unsoundness of mind, an insanity, as any other form, and its description finds a place in all text-books on the disease.

If any of such descriptions are read it will be found, as anyone with any experience of such cases knows, that so far from being the placid, quiet old mental cyphers some would have us believe them to be, these very senile cases, at all events the majority of them, exhibit all the symptoms of ordinary mental disorders *plus* special bodily and mental symptoms incidental to old age. Have we not all degrees of mania among our senile cases from the mild forms in which there is general loss of memory and understanding leading, say, to a demand to go out and feed the fowls, or get in the washing, or see after the bullocks, to the acute symptoms of shrieking, raving, destructiveness, sleeplessness, incessant restlessness, etc., or all degrees of melancholia and so forth? I don't say an ordinary senile case is always so, but I do say such acute symptoms are frequent, and hardly a day passes in my old women's ward but one or two cases, in turn, out of the fifty are so. My senile cases are a constant source of astonishment to myself and the nurses; it is marvellous how some old cases, especially women, will fight, and, indeed, show all the signs of acute mental disorder.

Surely, when we consider that in addition to this mental disorder there are general bodily infirmity, ill-covered and brittle bones, the urinary troubles of old age, the tendency to bedsores, the feeble circulation, and the difficulty of thorough bodily cleansing, it will be admitted that asylum care and treatment, with its elaborate structural arrangements and its nurses skilled in mental nursing, is necessary for such cases. Further, it cannot be contended that ordinary hospital or infirmary nurses can manage such cases; even if they could, they won't! Nor can they be treated in the large open dormitories of hospitals or workhouses, where single-room accommodation and really good bathing arrangements, such as we know them in asylums, don't exist.

It is often said, surely such cases do not require the elaborate and costly structure of a modern county asylum. That asylums are far too elaborate and costly is undoubted. Let those who plan and control their construction so build them as to be suitable for the reception of this kind of insane patient. I know of no part of an ordinary county asylum which could be done without in the treatment of

senile cases except, perhaps, the buildings devoted to Divine worship, or to associated recreation, and even this is doubtful. I admit that in populous counties, such as London, a special asylum, on cheaper lines than the ordinary asylum, might be set apart for senile cases, but in two-thirds of the counties of England, where the workhouse infirmary is, both from unalterable structural and administrative reasons, totally unsuited for such cases, the county asylum is the only alternative, and really the only place for the care and treatment of such cases.

Dr. ROBERT JONES.—We are, I think, almost on the brink of some great changes in asylum construction and administration depending upon the character of the patients under treatment, and I am not at all sure that these changes may not be introduced before very long. The changes I consider impending are due to a reaction to the extravagant arrangements which are now the fashion for all classes of the insane irrespective of the prospects of their recovery. One wants to do the very best one can for the recovery of all cases, but there are some who are absolutely irrecoverable, and what they most require is ordinary custodial care in inexpensive homes. I do not look upon senile cases as usually suffering from severe forms of insanity, although some certainly do so. I have come to look upon these senile cases as abnormal involution, as an unusual and unnatural mode of growing old—an involution which requires a kind of senile nursery supervision. I think the proper provision for such is some sort of place where they can get the maximum amount of supervision for the minimum amount of cost. I think the great thing the workhouse authorities are afraid of is the frequent inquests that may take place after accidents that have happened while these senile cases are under care, and therefore they wish to get rid of them to the asylum. We know the public mind is very touchy indeed on the treatment of the insane.

I do not know how far old-age pensions may help to keep these old people out of asylums, but I should imagine that some of these might be cared for by their friends. At any rate I think that, before long, these cases will have to be harboured in cheaper institutions than those into which they are now being being received.

I have been very interested in Dr. Thomson's remarks, but cannot help thinking he is somewhat mistaken in the view he takes as to the necessity of housing senile terminal cases in our ordinary public asylums.

Dr. NOLAN deeply regretted that so important a matter came up for discussion at so late an hour, and added that his attendance, at much personal inconvenience, was mainly due to his interest in the question of the provision for the chronic insane—a subject which in consequence of the provisions of the Local Government (Ireland) Act 1898 had reached an acute stage in Ireland. Under the terms of this Act, the County Councils of his country were empowered to remove the lunatics still in workhouses and to place them in "auxiliary" asylums, which might be independent institutions, or "departments," either remote or proximate, of the existing district asylums, but in any case the grant in aid would be but 2*s.* per head; and the inference of the Act was that, for the total sum of 3*s.* 6*d.* per week, the chronic lunatic could be properly maintained. To those present no arguments were needed to show how unjust and how unworkable were such propositions; how they ever came to be drafted it was impossible to imagine. The clauses nominally for the betterment of a most unfortunate class were calculated, in their present shape, to drag to a lower depth of degradation those unfortunate persons, since it was sought in some quarters to set aside all medical superintendence and efficient care, and to hand over the "auxiliary" asylum to a lay manager, presumably of the *status* of a head-attendant, supported by a staff chiefly consisting of a few "vigorous women neither squeamish nor over-refined." He hoped the monstrous proposition would be scouted by the Executive, but it had sprung from an influential source, and danger was ahead if strong though misdirected local opinion should unhappily be conciliated by a complacent interpretation of the rather vague phrases of the Act. To avoid misunderstanding he desired to say that he did not for one moment contend that in very large districts the more chronic cases should not be treated in special institutions or by boarding-out, but he did strongly hold that every pauper certified lunatic should be entitled to the 4*s.* rate in aid, and that medical supervision was necessary in every case for the protection of the individual and of society.

In the smaller districts the county asylums should be capable of accommodating all classes of the insane, and it should not be urged against such an arrangement that the association of the more acute and chronic cases is objectionable because, from an administrative point of view, it is calculated to raise the death rate and lower the recovery rate. In the eye of the law all pauper lunatics are equally entitled to efficient treatment; it does not and should not take cognisance of clinical classifications and superintendents' statistics. He would therefore remind the Association, composed so largely of those engaged in public work, that the present humane system has been the result of life-long labours, that it was a hard task to level up, but that the levelling down of asylums to their former shocking condition would be much more easy. In conclusion, he begged the Association to be on the alert to combat any attempt that may be made to undermine the medical administration of the asylum service, since such attempt would tend to a return to a state of things which it was one of the proud boasts of the Victoriar era to have removed as one of the darkest social blots on the face of the country.

Dr. BOWER agreed with Dr. Thomson that senile maniacs can be properly treated only in asylums, but as regards harmless senile dements, he considers it would be a great hardship to remove them to the county asylum, which might be many miles away, and thought they might very properly be treated in their own homes, or in the workhouses in their own unions, especially if they could have the benefit of the 4*s.* grant, or the grant in aid to patients on probation.

Dr. THOMSON.—Dr. Jones has referred to the fact that numbers of senile cases reduce the recovery rate, increase the death rate, and necessitate increase of asylum accommodation. I deplore this as much as he does, but this is no argument for the exclusion of such cases from county asylums any more than it would be, as I have said in my opening remarks, for the exclusion of epileptics, general paralytics, or other forms of incurable insanity. At the same time, as I have admitted, special provision may be considered advisable in populous counties, such as London.

Members afterwards dined together at the Café Royal, Regent Street.

SCOTTISH DIVISION.

A meeting of the Scottish Division of the Medico-Psychological Association was held in the Hall of the Faculty of Physicians and Surgeons, Glasgow, on March 22nd, 1901.

Present: Drs. Bruce, Carswell, Havelock, Hotchkis, Keay, Marr, Macdonald, G. M. Robertson, James Rorie, G. A. Rorie, James Rutherford, junr., W. J. Richard, G. A. Welsh, W. R. Watson, and Yellowlees, with Dr. A. R. Turnbull (Secretary), and Dr. M'Intyre as a visitor.

On the motion of Dr. TURNBULL, Dr. Rorie was called upon to preside. After the minutes of the last meeting had been read and approved of,

The CHAIRMAN announced apologies for absence from Sir John Sibbald, Drs. Campbell Clark, Graham, Urquhart, Clouston, Alexander Robertson, and Robert Jones (General Secretay).

NEW MEMBERS.

Applications for admission as members were submitted from Dr. J. H. MacDonald, Lenzie; Dr. G. Douglas M'Rae, Edinburgh; Dr. Thomas F. H. Blake, Inverness; and Dr. William C. Anderson, Cupar-Fife; and on a ballot these gentlemen were announced as having been duly elected.

NEXT MEETING.

The CHAIRMAN submitted a letter from Dr. G. M. Robertson, inviting the members of the Division to hold their next meeting at the Stirling District Asylum, Larbert, and requesting their presence at dinner afterwards.

On the motion of Dr. TURNBULL, seconded by Dr. KEAY, the invitation was accepted with thanks, and the matter was remitted to the Divisional Secretary to make arrangements.

Official Recommendations.

On the motion of Dr. Keay, seconded by Dr. Yellowlees, Dr. Turnbull was unanimously recommended as a member of the Council.

On the motion of Dr. Havelock, seconded by Dr. Turnbull, Dr. Carlyle Johnston was recommended as Examiner in Psychological Medicine, and also for the Nursing Certificate.

Dr. Turnbull moved, and Dr. Robertson seconded, that Dr. Bruce should become Secretary of the Scottish Division, and this was unanimously agreed to.

Papers Read.

Dr. G. A. Welsh read a paper on "The Influence of Cerebral Disease on Intercurrent Physical Disease."

Inverness Asylum.

Dr. Keay showed and described the plans of recent additions to the Inverness District Asylum.

Criminal Cases.

Dr. L. C. Bruce read a paper on "The Differentiation of Criminal, Dangerous, and Curable Patients."

Nursing Report.

It was agreed to postpone consideration of this Report until next meeting.

NORTHERN AND MIDLAND DIVISION.

The Spring Meeting was held at the Leicester and Rutland Asylum, Leicester, on Wednesday, April 3rd. Dr. Fletcher Beach presided, and there were also present—Dr. Stewart, Dr. Macphail, Dr. Kay, Dr. Powell, Dr. Mould, Dr. Millar, Dr. Hitchcock, Dr. Finch, Dr. H. M. Baker, Dr. Richards, Dr. Legge, and Dr. Crochley Clapham. Visitors—Dr. Pope and Dr. Astley Clarke, of the Leicester Infirmary.

Business.

The Hon. Sec. read the minutes of the previous meeting, which were confirmed.

The Chairman said the next business was to elect an Hon. Sec. in accordance with Article 28 of the Bye-laws.

Dr. Crochley Clapham said he was sorry to say that after holding the office since March, 1897, he felt called upon to resign, as he was leaving the northern part and was going to reside in Sussex. He thought it would be better to appoint a secretary who would be able to keep more in touch with the members of the division. He was sorry to be obliged to resign, and he expressed the hope that the division would be well served by his successor.

The Chairman said he was sure they would all agree with him in saying they were sorry to hear that their Hon. Sec., who had worked so well, was obliged to resign. Before they proceeded to elect another it would be their duty as well as pleasure to propose a very hearty vote of thanks to Dr. Crochley Clapham for the work he had done for so many years. He (the Chairman) would move that their best thanks be given to the Hon. Sec., and that the vote be entered on the minutes.

Dr. Powell, in seconding, said they were very much indebted to Dr. Crochley Clapham for what he had done for the northern branch.

The resolution was carried with acclamation, and was briefly acknowledged by the Hon. Sec.

Dr. Stewart proposed that Dr. Hitchcock be elected Hon. Sec., remarking that he had attended most of their meetings and had taken a great interest in their proceedings.

Dr. Kay seconded, and the motion having been very heartily supported by Dr. Clapham, was carried unanimously.

Dr. Hitchcock thanked the meeting for the honour conferred upon him.

Dr. Stewart and Dr. Adair were nominated to fill possible vacancies on the Council.

It was decided that the next meeting be held at York on the last Wednesday in October.

Dr. ROTHSAY STEWART read notes of "Two Cases of Insanity following Chorea" (see page 540), and of "A Case of Rodent Ulcer being treated by the X-rays."

Dr. ALFRED MILLER, in opening a discussion on the best means of collecting information regarding asylum administration, said: The subject which I am anxious to bring to your notice to-day is one on which I have spoken to some of the members of our branch, and as those with whom I have discussed the matter seemed to be of opinion that something of practical utility might possibly be evolved if the question were approached at one of our meetings, I decided to bring it forward to-day. Those who have been fortunate, or otherwise, to be elected superintendents at a somewhat early period of their career, have possibly been struck by their lack of knowledge of some of the most rudimentary points of administration, and have had to send out many circulars to their fellow superintendents seeking for information. I have been through this experience myself, and have received some caustic replies in my time. Apart from these little personal reasons I would suggest the establishment of some central channel for the purpose, call it a bureau of information, conducted by one of our members, who would receive the various queries, send copies to all superintendents, and receive the replies, which would then be tabulated and printed, and a copy sent to all superintendents who replied to the original circular. By this means a permanent record would be preserved, and much useful information which is now lost would always be at the disposal of any superintendent requiring it. There are some subjects on which we are constantly receiving circulars, *e.g.*, wages, leave of absence, dietary. These should be so tabulated in the annual reports that it would only be necessary to look through the various asylum reports to find all the information required. Were these subjects I have alluded to tabulated in a uniform way a great deal of time spent on sending out and receiving circulars would be saved. I do not think the cost of dealing with the matter in the manner I have suggested should prove excessive; the printing and posting of the necessary circulars would not be expensive, and in many cases the information supplied would be most useful.

The PRESIDENT said this was a most important subject. It seemed to him quite desirable that there should be a bureau through which they could obtain information that would save them a great deal of trouble in the way of sending out circulars. He would like to hear the views of the members on the subject.

Dr. KAY desired to know if Dr. Miller meant there should be a central office somewhere. If so, where would the funds come from; what was going to keep the central office going? He did not know if the small fee Dr. Millar suggested would be sufficient to cover ordinary postal and printing expenses. The idea was a very good one if it could be practically carried out, but it seemed to him that it would be difficult to get such an office as suggested.

Dr. HITCHCOCK said he could quite see the advantage that would accrue to the members of the association if such a scheme could be carried out, but, of course, the practical difficulty was how to get the money to establish the machinery for it. No doubt every asylum superintendent had in his possession practical notes on the working of the Lunacy Act, and matters of administration which would be of great value if they could be put into circulation. The notes, he suggested, might be started by one superintendent and then sent round to others, who could add what they had found valuable or useful in their experience. Then the notes could be duplicated and copies sent to each member.

Dr. CROCHLEY CLAPHAM said there was another way in which it might be done, namely, by starting a "Notes and Queries" column in the quarterly JOURNAL. They might arrive at a good deal of information that way, and anything supplied by way of answers in the "Notes and Queries" would remain on record.

Dr. POWELL said this was a matter which must arouse the interest of all asylum superintendents. They were almost constantly coming across matters in the management of asylums that they would like to know the opinion of other superintendents upon. They did not bother themselves by writing round, and they were consequently very often in the dark as to what had been done in a similar emergency at other places. He was quite sure that all present would agree

with him in saying that if it were possible to obtain such information, especially relating to matters of administration in asylums, it would be of immense value to them. There could be no question about that, but they must consider what would be the best method of bringing about such a thing. He could not possibly see how they were to have a central bureau for accumulating and circulating this information. He thought that they should get their brother superintendents to make more use of these divisional meetings for the purpose of comparing notes on such questions as Dr. Miller had referred to.

Dr. MACPHAIL said he fully endorsed the suggestion of Dr. Powell that they should make more use of those branch meetings, because one was bound to confess that in meeting with fellow superintendents they got a lot of useful information from each other. He gathered that Dr. Miller's suggestion had not so much to do with questions relating to the Lunacy Act as with matters of asylum administration. But the difficulty in carrying out the suggestion seemed to him to lie with the superintendents themselves. Dr. Miller told them that when he began life as a superintendent he was anxious to learn and willing to have an open mind. That was rather a rare type of medical superintendent. Many of those he was acquainted with knew far too much already, and this type of man would not be willing to take the trouble to get other superintendents' views. Most of them had had to work out their own salvation in these matters. How were they to get at the men—and there were a number of them—who when written to refused to give information? Of course, in some cases one received letters asking a lot of very foolish questions which could only be answered by a special knowledge of a particular district. He thought Dr. Miller's idea was a good one, and if a practical scheme could be thought out by which they could disseminate information on certain administrative points, he was sure they would all subscribe to it, and willingly pay a small fee. But he did not think there was a sufficient desire—certainly not amongst the men he knew—to have a bureau involving a salaried official and a certain amount of expense. At the same time, as Dr. Miller had started the idea he thought they ought to thank him for bringing it before them, and if at the next meeting he could put before them a practical scheme for certain definite points they would gladly welcome it, especially if it were such as they could ask their Secretary to undertake. At present Dr. Miller's proposal was too general.

Dr. LEGGE said he was not one of those superintendents who had nothing to learn. He confessed that points frequently arose with him that he would be very glad to have settled by somebody of more knowledge than himself. He thought it occasionally happened, too, that information came to him which would be of service to his fellow superintendents. For instance, there was one matter which had been brought home to him several times last year in a most unpleasant way. It was a point connected with the Lunacy Act. It did not appear to be generally known that, in transferring patients from one asylum to another, the reception order should be signed by the Visitors of the asylum *to* which the patient was going. On four occasions last year transfers were objected to by the Commissioners. In consequence of this he had to incur the responsibility of keeping patients in the asylum for several weeks although they were illegally detained. One objection which he could foresee to the proposed bureau was that it might have a tendency to set up an authority which might be appealed to by their committees to their own detriment as superintendents. But if they could have a central bureau which would afford information for themselves only he should certainly be very willing to support it, and would be very glad to use it himself. He was therefore strongly in sympathy with Dr. Miller's suggestion. Whether anything could be done through the medium of a supplement to the JOURNAL he did not know, but if the idea could be carried out in any practical way it would most certainly prove a valuable aid.

Dr. STEWART said he had sometimes thought it would be a very useful thing if by means of such a bureau as Dr. Miller suggested they could get information with regard to the attendants whom they might engage. Very frequently an applicant would tell them he had never been in an asylum before, but directly they set him to work it became obvious that he was already accustomed to the duties.

Dr. MOULD said the Commissioners did keep a register of attendants, and they stated that no one asked them for information on the subject.

Dr. MILLER, replying on the discussion, said he had not intended that this proposal should involve serious expense. So far as the cost was concerned he had presumed that, for the love of the thing, some member of the Association would undertake the work as they did the office of examining attendants, being simply recouped for out-of-pocket expenses. It was not his intention that the bureau should supply technical information on points of law. But there was a good deal of information that might be circulated on the subject of dietary and various other matters, and he still thought that the number of questions one was asked in a year on these points were not so great as to necessitate the keeping of an office and a staff. He thought it might be done easily by some member of the Association if the questions were restricted to *bonâ fide* matters of administration. So far as what Dr. Stewart had said was concerned, no doubt the same thing had happened to all of them. The safest way was to ask for a photograph when the application was made and send it to the nearest asylum to the town from whence the application came, and it was almost sure to be recognised. In conclusion, Dr. Miller said he would not mind undertaking the work of the bureau himself for twelve months to see whether the idea could be practically carried out.

SOUTH-WESTERN DIVISION.

The Spring Meeting was held at the Worcester County and City Asylum, Powick, on 22nd April, 1901.

Present: Dr. Benham, Dr. Morrison, Dr. Paterson, Dr. Millar, Dr. Braine-Hartnell, Dr. Turner, Dr. Aveline, Dr. Bubb, Dr. Suffern, Dr. MacBryan, Dr. Wilkinson, Dr. Veitch, and Dr. MacDonald.

Dr. Benham was voted to the chair.

The following gentlemen were elected members of the Association:—Joseph L. Baskin, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., A.M.O., Devon County Asylum. Proposers: A. N. Davis, R. Stephens, and P. W. MacDonald. William E. Peck, M.R.C.S., L.R.C.P.Lond., A.M.O., Devon County Asylum. Proposers: A. N. Davis, R. Stephens, and P. W. MacDonald. D. M. MacRae, M.B., C.M., A.M.O., Wilts County Asylum. Proposers: J. I. Bowes, J. L. Gordon, and P. W. MacDonald. R. B. Smyth, M.D., B.Ch., Senior A.M.O., Gloucester County Asylum. Proposers: F. H. Craddock, J. G. Soutar, and E. W. Henley. George Potts, L.R.C.P., L.R.C.S.Edin., A.M.O., Dorset County Asylum. Proposers: P. W. MacDonald, J. Davison, and A. Davidson. John M. Ahern, L.R.C.P., L.R.C.S.Ireland, A.M.O., Warneford Asylum, Oxford. Proposers: J. Neil, P. W. MacDonald, and A. Davidson.

OFFICIAL RECOMMENDATIONS.

Dr. BRAINE-HARTNELL proposed and Dr. BENHAM seconded that Dr. MacDonald be asked to continue his appreciated work as Hon. Sec. Carried.

Dr. MacBryan proposed and Dr. AVELINE seconded that the name of Dr. Rutherford be submitted for election to the Council. Carried.

Dr. MACBRYAN proposed and Dr. TURNER seconded that Dr. Braine-Hartnell and Dr. Aveline be elected to fill the vacancies on the Committee of Management.

Dr. AVELINE proposed and Dr. MACBRYAN seconded that the October Meeting be held at Bath.

ASYLUM DIETARY.

The discussion on Dr. Turner's paper was resumed.

DISCHARGE OF PATIENTS.

Dr. Braine-Hartnell read a paper on this subject, which was fully discussed.

VOTE OF THANKS.

Dr. Benham expressed the thanks of the members present to Dr. Braine-Hartnell for his courteous and hospitable reception of the division.

SOUTH-EASTERN DIVISION.

The Spring Meeting of the South-Eastern Division was held, by the courtesy of Dr. Amsden, at the Essex County Asylum, Brentwood, on 24th April, 1901.

Present: Dr. Fletcher Beach (President), Drs. Percy Smith, Gardiner Hill, Crochley Clapham, R. H. Steen, E. France, J. S. Bolton, Robert Jones, A. Newington, H. E. Haynes, D. Bower, Lieut.-Col. J. W. Evans, I.M.S., Drs. H. Kerr, J. Benson Cooke, F. Edridge Green, J. Peeke Richards, C. E. P. Forsyth, J. F. Taylor, A. H. Spicer, J. Grimmond Smith, W. C. Worley, Miss A. de Steiger, Drs. George Amsden, J. Turner, G. N. O. Slater, O. Hanbury, A. N. Boycott (Hon. Sec.). Visitors: Drs. R. W. Quennell, A. Quennell, and the Rev. H. Stephens.

After luncheon a meeting of the Divisional Committee was held. During the morning and afternoon the members inspected the wards and grounds, and at 2.45 p.m. the general meeting of the division took place, when Dr. Fletcher Beach (President) took the Chair.

The minutes of last meeting were read and confirmed.

The Hon. Secretary read a letter of thanks from Dr. Langdon Down for the vote of condolence passed at the last meeting.

A resolution expressing the sympathy of the division with G. Harold Urmson, Esq., Commissioner in Lunacy, on the occasion of his recent accident, was proposed by the President, seconded by Dr. Amsden, and unanimously carried.

Official Recommendations.

Dr. A. Norman Boycott was nominated as Honorary Secretary for the South-Eastern Division for 1901–2.

Drs. Bond, Percy Smith, and T. O. Wood retired by rotation from the South-Eastern Divisional Committee, and Drs. Steen, Moore, and Chambers were elected in their places.

The names of Dr. Savage and Dr. Kidd were nominated to the Council to fill vacancies on that body at the next annual meeting.

Next Meeting.

An invitation from Dr. Moore to hold the Autumn Meeting of the Division at the Holloway Sanatorium, Virginia Water, in October, 1901, was unanimously carried.

Papers Read.

Dr. Robert Jones read a paper entitled "The Importance of the Teaching of Insanity to the Medical Student and Practitioner."

Dr. Arthur Spicer read a paper on "A Case of Spontaneous Fracture."

A hearty vote of thanks was accorded to Dr. Amsden and to the Committee of the Asylum for inviting the Division to meet at Brentwood.

The members afterwards dined at the Café Monico, Regent Street.

MR. CRACKANTHORPE ON CRIME AND PUNISHMENT.

The Lord Chief Justice presided over the annual meeting of the Society of Comparative Legislation in Lincoln's Inn, on February 19th last.

Mr. Crackanthorpe, K.C., read a paper on "Crime and Punishment from the Comparative Point of View," in which he said it was well to have our comfortable optimism disturbed if our methods were to be improved. Modern penal law be defined as "a weapon of social defence tempered by justice to the individual." Sir James Stephen and Beccaria had shown that crime was in former times viewed objectively only, and without regard to the offender's character. On this principle the French code of 1810 treated the criminal as an abstraction, and the legal limits of punishment for specified crimes were laid down with mathematical precision. The rigour of the code was, however, modified by the admission of "extenuating circumstances." The Belgian code of 1867 discarded the theories of Beccaria and accepted those of Pellegrino Rossi, who laid great stress on the reclamation of the criminal. The new school of criminologists treated the

criminal as the complex product of inherited propensities and the atmosphere in which he had been brought up. Its advocates were—in France, MM. Tarde and Lecassagne; in Belgium, M. Prinz; in Russia, M. Fornitzki. In Italy the subjectivity of the criminal had been pushed to its extreme by Lombroso and Garofalo, the former laying principal stress on physiological peculiarities, the latter on the influence of the social factors of life. In Germany the connection between crime and its causes formed a separate department of study under the name of *Die Kriminalpolitik*, of which Professor Franz von Liszt, of the University of Berlin, was a powerful exponent. The first State reformatory for youthful offenders originated in the United States in 1825. Another attempt was made at the French agricultural colony of Mettray, founded in 1829 by M. De Metz and the Vicomte de Courteilles, of which a special feature was the *maison paternelle*, where sons of well-to-do parents who had proved unmanageable at home and were between the ages of 16 and 21 could, by virtue of a provision of the French Civil Code, be sent to undergo for a period of six months a course of curative moral treatment and instruction at their parents' expense. Again, the principle of our First Offenders Act, 1887, was first resorted to in Massachusetts, where the juvenile, after being convicted and admonished, was placed in charge of a probation officer, whose duty it was to watch over his conduct, and if it were unsatisfactory to report to the Court. In France the *loi Berenger* of 1891 had been borrowed from our Act of 1887; but under the French law a defined sentence was pronounced, so that the first offender knew precisely what his punishment would be if he got into trouble again. Dealing next with the professional criminal, Mr. Crackanthorpe stated that every European code, except the Spanish, treated the *recidiviste* more severely than the first offender, the French law on this subject being more elaborate than the German, and the Italian more elaborate than the French. Among our own judges there were wide differences of opinion and practice. The question might well be threshed out by means of an international congress, with hope of like fruitful result as had followed the International Penitentiary Congresses which had been held in most of the capitals of Europe. The first of these was held in London in 1872, and as a consequence of these congresses improvements had been made in almost every country in Europe. It was for this reason he had proposed at the Congress of Comparative Legislation held in Paris last autumn that an international commission should be appointed for the purposes explained in a letter in 'The Times' of August 17th last. This commission would possess one novel feature of supreme importance, in that it would bring an expert on prison discipline into close personal contact with experts on the theories of sentencing. These two subjects had been too long kept apart. Judges should not only ponder carefully over their sentences, but should also know precisely the nature of the punishment inflicted. He agreed with Dr. Anderson and with Mr. Justice Wills, in his letter recently published in 'The Times,' that the uniform severity of penal servitude was a serious obstacle to the elimination of professional criminals, and that our existing methods of punishment were too monotonous and inelastic. The new commission might make some valuable suggestions on this head, and he (or his successor) might at no distant date be able to present to the society a body of carefully sifted opinion, capable of being translated into rules for practical guidance.

Dr. MORRISON, in opening the discussion, pleaded for an ætiological inquiry. The discovery of prisoners' antecedents would often evoke pity rather than severity. He entirely differed from Dr. Anderson in respect of the treatment of the habitual. If long sentences and harsh treatment were indiscriminately to be employed, the burglar would not stick at murder, and society would suffer the more. The wide discretion of the judge in England was, in his opinion, much better than the mathematical precision of the French system.

Sir RAYMOND WEST agreed with Dr. Morrison on the question of judicial discretion, and his opinion was confirmed by his experience in Egypt, where technical reasons sometimes made inevitable the infliction of a ridiculously severe sentence for trifling offences. English lawyers might learn from the Indian Penal Code and also from the practice of revision by High Court Judges of sentences of inferior tribunals.

The LORD CHIEF JUSTICE, in moving a vote of thanks to Mr. Crackanthorpe, agreed that great good might come from an international consideration of these

matters. The judges, he believed, had more knowledge of the conditions of prison life than they were credited with, and he hoped that every judge and magistrate would make himself acquainted with the prison officials and the actual workings of our prisons. He was in general agreement with Mr. Justice Wills, than whom there was not a more humane and conscientious judge on the Bench.

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. Gibson.

This was a Scottish murder case, in which the plea of insanity was raised in bar of trial. Dr. Rorie, Dr. Tulloch, and Dr. Templeman were examined on behalf of the prisoner, and gave evidence of great length. They seem to have detailed the whole substance of their interviews with the prisoner, and were specially questioned by the judge as to the possibility of their being deceived by feigning on the part of the prisoner. Ultimately his lordship pronounced that the prisoner was insane, so as to be incapable of giving instructions for his defence, and ordered him to be detained to await His Majesty's pleasure. It will be seen that the Scotch practice differs from that in this country, insomuch that the question of ability to plead is not tried by a jury, but by the judge alone.—Circuit Court, Dundee, March 30th, Lord Kinnair.—*Dundee Advertiser*, April 1st.

Rex v. Eddington.

Maud Amelia Eddington was indicted for the murder of John Bellis, and also for attempting to commit suicide. Prisoner had been engaged to marry the deceased, and there had been some love trouble between them. She bought a revolver and went to the shop in which he was employed, and exactly what happened is unknown, although a witness was present. Prisoner and deceased were close together and there was a scuffle between them, during which three shots were fired, of which two struck deceased in the head, so that he died shortly afterwards, while the third grazed the prisoner's temple. Her own account was that she went to the shop in order to shoot herself in the presence of the deceased, that he interfered to prevent her, and diverted the shots to his own head. The jury took this view and acquitted the prisoner, who then pleaded guilty to the charge of attempting to commit suicide. For this she was sentenced to fifteen months' hard labour.—Central Criminal Court, March 28th and 29th, Mr. Justice Phillimore. —*Manchester Guardian*, following days.

The sentence, nominally for attempting to commit suicide was, of course, really for shooting her lover. If she had done no damage by her shots she would have been bound over to come up for judgment when called upon; however, substantial justice was done, supposing the view of the jury was a true one; but a good deal of doubt is left in the mind of the reader of the report.

Rex v. Harrow.

James Harrow was charged with the murder of William Tastard and David Ewing. Insanity was pleaded in bar of trial, and the proceedings were similar to those in the case of Gibson, the medical witnesses giving evidence at great length, being closely cross-examined as to the possibility of fraud and malingering on the part of the prisoner. It appeared that the prisoner had long cherished the delusion that Tastard intended to stab him, and that he had had aural hallucinations corroborating him in the delusion. The Judge found him insane and unfit to plead.—High Court of Justiciary, Aberdeen, Lord McLaren.—*Aberdeen Journal*, March 30th.

Another of the numerous instances to which attention is repeatedly called of murders committed by lunatics who ought not to have been at large.

Rex v. Curry.

Maria Curry was indicted for the murder of her infant son. Prisoner, who was admittedly suffering from weakness and despondency, jumped into the London Docks with her child. The only medical interest of the case is that Dr. Scott, the prison medical officer, was allowed to give his opinion that the prisoner at the time she committed the act did not know its nature and quality.—Guilty, but insane.—Central Criminal Court, February 6th, Mr. Justice Phillimore.—*Times*, February 7th.

Rex v. McDonald.

Alexander McDonald, 32, seaman, was indicted for wounding Arthur Day with intent. Prisoner was a fireman on board the British ship "Insizwa." On November 20th, when on the high seas, he suddenly attacked Day with a heavy hammer. He then said to another member of the crew, "All right, chum, I have done it." He then went to the chief engineer and said "I have done it, I have killed my man; it is all through that shelf full of diamonds in the forecastle." When brought before the magistrate on return of the ship the prisoner said, "I was breaking coal. It came into my head there was going to be a mutiny, and an officer seemed to say to me, 'Secure this man and I will secure the other.' I struck Day, not with the intention of hurting him. I moved him back from the fire and then gave myself up.—Guilty, but insane. Central Criminal Court, February 6th, Mr. Justice Phillimore.—*Times*, February 7th.

This case is very interesting, since it would appear to be an answer to the question of Dr. Clouston in a recent number of the JOURNAL. The man seems to have been a general paralytic, and the murder to have been one of the rare cases of murder committed in the early stage of general paralysis.

Rogers and another v. Rogers and others.

The trial of this case occupied six days, and, being a Welsh case, there was a great deal of hard swearing on both sides. On June 11th, 1899, the testator had a light stroke of paralysis, but in two or three days he was able to go about his business again. On June 29th he had another stroke. He was unconscious in the morning, but in the afternoon he made another will. On July 14th, 1899, he had an attack of acute mania, and thereafter was alleged to be unfit to transact business. At various times after June 29th he expressed dissatisfaction with the will made on that day, and early in July, before the attack of mania, he had written to the solicitor who drew it demanding the will back, but it was not sent. But on February 1st, 1900, he executed a draft will, and on February 22nd a fair copy of that draft, getting another solicitor to draw the will for him. On August 7th, 1900, he sent a letter to his solicitor, Mr. Richards, demanding the will, but Mr. Richards refused to deliver the document unless the testator came for it himself. Accordingly the testator went, and said that his family were making things so uncomfortable that he determined to destroy the will of February in their presence. He added, however, that he should make another will, and accordingly he called a few days later and gave instructions for a new will of the same character. This will he executed at the office of the Gas Company as he complained that he was being watched. On August 25th he had a third stroke, and died two days afterwards. In the course of the case Dr. Savage was called, and stated that, in his opinion, requisites for a valid will were:

1st. The memory of the testator should be sufficiently clear to recognise his relations and remember his property.

2nd. That no delusions should exist which might influence his capacity.

3rd. That the testator should have sufficient will-power not to be unduly influenced. This statement was approved and endorsed by the judge in his summing-up. The jury found against the will of August 21st, 1900, and that the testator was not competent to revoke the will of February 22nd, 1900, and they found in favour of this last will.—Probate Division, Mr. Justice Gorell-Barnes.—*Times*, March 14th, 15th, 21st, 22nd, 23rd.

LUNACY AND IMMIGRATION IN THE UNITED STATES.

It is well known that a heavy burden has been imposed upon the United States of America by the immigration of persons already insane. A Bill has been introduced in the House of Representatives, after a full inquiry, to amend the immigration laws in this respect. Briefly, it proposes that aliens should be excluded if previously, within ten years, confined in any asylum for the insane, idiotic or epileptic, or if they have so suffered before landing in the United States, or if so affected within two years after admission, unless disorder is shown to have been due to causes arising after arrival. Certificates will be required from immigrants, and these must be granted by a local physician of experience in mental diseases whose reputation is vouched for by the local Consul, and must show whether the alien has been insane, etc. The Bill further provides for the return of aliens to their respective countries should they be undesirable immigrants for the reasons indicated. It was shown in the evidence that by the census of 1890 the foreign population of the State of New York constituted 25 per cent. of the whole, whereas the foreign population in the New York State Asylums was 50 per cent. of the whole. These and similar facts have long been recognised as vital to American interests, and it is by no means surprising that an effort is now being made to relieve the State of such an incubus.

ASYLUM NEWS.

Burntwood Asylum, Stafford.

We deeply regret to record that, by a fatal mistake, the lives of three patients have been lost at the Burntwood Asylum. By the report of the coroner's inquest it appears that on June 3rd draughts of chloral and potassium bromide had been prepared for six female patients, but Dr. Farquharson, having been called away whilst dispensing them, most unfortunately used a concentrated instead of a diluted solution contained in similar bottles, with the result that each patient got 240 grains of chloral. Three of the patients died. The jury returned a verdict of "death from misadventure," and recommended that bottles containing poison should be made more distinguishable from others in the surgery, the foreman expressing their deep sympathy with the relatives and with Dr. Spence and the staff of the Asylum in the sad occurrence. One of the relatives of the deceased, speaking for himself and others similarly bereaved, thereafter stated that he had perfect confidence in Dr. Spence, and testified to the kindness with which patients were treated by him and his staff. He also expressed his sympathy with Dr. Farquharson in the extremely painful position in which he had been placed. It is some consolation that the record of years of beneficent work outweighed the disaster of a moment in the minds of the public, as represented by the coroner's jury, and especially that the afflicted relatives of the deceased felt constrained in their sorrow to give expression to sentiments of esteem and sympathy. Such a result cannot but be helpful in encouraging us to renewed efforts to do our very best in the high calling which it is our privilege to follow.

A Scheme for the Establishment of an Epileptic Colony.

By Dr. G. J. Cooper, L.C.C.

This paper was read by the Secretary, in the author's absence, at the General Meeting in February last.

I should like to say at the commencement that in establishing an epileptic colony no thought was entertained that such a colony would be a curative remedy. But it was recognised that epileptics are a special class, and therefore might receive special treatment. Although they are liable to paroxysmal violence, and to become dangerous to others and to require restraint, they have longer or shorter periods of lucidity, and are therefore more likely to appreciate the more home-like treatment of a colony, and the freedom from association with the permanently

rule consequent on the decrease of ordinary crime. In effect, he concludes that professional criminals should be deprived of the liberty they abuse, even for life. It is evident that the free discussion of these problems must precede any such changes in the law as Dr. Anderson and others advocate, and we trust that our Association will take its part in guiding public opinion on questions of such importance to the nation.

THE ASYLUM WORKERS' ASSOCIATION.

The *Asylum News* of June 15th contains a full account of the annual meeting of the Asylum Workers' Association. The President, Sir James Crichton-Browne, addressed a representative assembly, and congratulated the Association on a satisfactory condition of the affairs. We need not reproduce the transactions of the meeting, for the *Asylum News* should find its way into all our Hospitals for the Insane. Under the favourable auspices and able guidance which this organisation has secured, the welfare of the insane, and of those most intimately connected with them, is surely advanced, and our readers will do well to study the address of the President and the report of the Association on the occasion of the fourth annual meeting.

NOTICES BY THE REGISTRAR.

Examination for the Nursing Certificate.

Five hundred and twenty-one candidates applied for admission to the May examination for this certificate. Of this number 410 were successful, ninety-seven failed to satisfy the examiners, eleven withdrew, and the result of the examination of three candidates in South Africa is not yet to hand.

The following is a list of the successful candidates:

Cheshire County Asylum, Macclesfield.—Males: Charles Giles, James Mottershead, Arthur Potts. Females: Elizabeth Armitt, Ann Alice Brereton, Florence Harriet Mary Austin, Dora Grocott Corry, Mary Davenport, Elizabeth Gardiner, Miriam Stubbs, Tamar Jane Tunley.

Counties Asylum, Carlisle.—Males: Charles Bellas Mark, John Rae. Females: Fanny Carrick, Janet Crosbie, Elizabeth Ann Reay, Caroline Sanders.

County Asylum, Exminster, Devon.—Males: Robert Norman Bastin, Francis Budd, George Connett, Albert Edward Dymott, John Endicott, Charles Newcombe, John Snow, John Salter, William Walters. Females: Jessie Goldsworthy, Kezia Catherine Somerwill, Mary Elizabeth Tuplin, Charlotte Louise Wiscombe.

County Asylum, Bridgend, Glam.—Males: Walter Evans, Daniel Hughes, Gwilym Maido Booth, John Morgan, Dan Perry. Females: Mary Armitage, Elizabeth Cole, Elizabeth Davies, Louisa Ann Edwards, Eva Clare Hughes, Margaret Ann Morse, Margaret Morgan, Sarah Anne Price, Mary Jane Williams.

County Asylum, Chartham, Kent.—Male: William Henry Wakefield Ingram. Females: Mary Furlong, Euphemia Shirley, Amy Stickles.

County Asylum, Rainhill, Lancs.—Males: Edwin Cridland, George Horace Danby, John Thomas Francis, Morton Graham, Rayner Hudson, Samuel Charles Humber, Albert Manning, Richard Rigby, Harry Selfe, Edward Stoakes. Females: Sarah Elizabeth Davies, Catherine Harris, Annie Hooper, Maggie Jones, Bertha Priscilla Jupp, Kathleen Kennedy, Gertrude Annie Lowe, Annie Nicolson, Jane Caroline Slyfield.

London County Asylum, Claybury.—Males: Harry Aslett, William Brumby, Edward J. Cox, Henry Augustus Dangerfield, John Dolphin, John Fadden, Richard Harrison, Arthur James Osborn. Females: Angela Andrews, Margaret E. Aitchison, Annie Elizabeth Ball, Laura E. Browne, Catherine Dalgarno, Ada Dear, Amelia Garner, Edith Gant, Florence Hamlett, Amy Ellen Heard, Mary Rosina Hudd, Grace Miller Kerr, Agnes Masterton, Jessie Overend, Eleanor Emma Skinner, Margaret Jane Smith, Kate Sullivan, Jenny Taylor, Lily Weaver, Florence Vera Whitefoot.

London County Asylum, Cane Hill.—Females: Elsie Gabriel, Daisy Halliday.

Middlesex County Asylum, near Tooting, S.W.—Males: James Groves, Thomas

Hatch, Albert Edward Philip Kilburn, Isaac Todd, Henry Whitehead. Females: Ada Burden, Sophie Branson, Lillian Bruce, Laurie Kathrene Brooker, Charlotte Helena Coombs, Alice Rosina Coombs, Frances Kate Pook, Mabel Jane Reakes Ada Mary Thorpe.

Monmouth County Asylum, Abergavenny.—Females: Jane Garraway, Edith Mary Higgs, Elizabeth Hogan, Blanche Mary Jones, Elizabeth Lewis, Rose Alice Lewis, Ellen Reece.

County Asylum, Norwich.—Females: Ellen Elizabeth Lee-Manning, Florence Emily Raynes.

Oxford County Asylum, Littlemore.—Male: Frederick William Beckley.

Somerset and Bath Asylum, Cotford, Taunton.—Males: Edwin Robert Redman, Richard Rosling, Arthur William Shapley. Females: Marion M. Aston, Ellen Millard.

County Asylum, Brookwood, Surrey.—Males: Keppel Horatio Gawn, Duncan Kenneth Keenan, William Lillywhite Morgan, Thomas Voice. Females: Lucy Crouch, Sarah Ann Meggitt, Beatrice F. Miller, Louise Norman, Elizabeth Richardson.

Suffolk County Asylum, Melton.—Males: William Richard Budinger, Charles Lundie. Females: Florrie Day, Annie Foster, Caroline Shill.

Three Counties Asylum, Hitchin.—Males: Frederick Alfred Butcher, John Davies, James Robert Woodhouse. Females: Beatrice May Brockett, Harriet Matilda Kitchener, Minnie Marsh, Margaret Robinson.

County Asylum, Hatton, Warwick.—Males: Thomas Cooper, Isaac Edwards, George Josiah Morris, Frank Smith Nash, Charles Reeves. Females: Miriam Emily Dee, Annie Francis, Rachel Elizabeth Florence, Agatha Sarah Hayes, Agnes Kemp, Catherine Moore, Mary Jane Madge.

West Riding Asylum, Menston, near Leeds.—Males: Walker Brearley, Harry Brown, George Frederick Fox, John Holmes, Jonathan Lamb, William Clifford Whalley, Arthur Yeadon. Females: Charlotte Cave, Alice Greetham.

West Riding Asylum, Wadsley.—Males: Albert Charles Bass, Joseph William Camplin, George Clarke, George William Creasy. Female: Martha Sanderson.

West Riding Asylum, Wakefield.—Male: Tom Robinson. Females: Jessie Cadman, Elizabeth Ann Copley, Annie Elizabeth Fletcher, Eliza Garland, Lillie Hasker, Agnes Elizabeth Lambert, Jennie Teal, Eva White.

City Asylum, Winson Green, Birmingham.—Females: Mary Jones, Jane Ravenhall, Mabel Stevens, Elizabeth Florence Taylor.

City Asylum, Fishponds, Bristol.—Male: Albert Gubb. Females: Elizabeth Coles, Hannah Bella Cox, Blanche Hayward.

City Asylum, near Exeter.—Females: Margaret Mary Duguid, Beatrice Annie George, Louisa Elizabeth Johns.

City of London Asylum, near Dartford.—Males: Harry Vick Matthews, Walter Sandford Taylor. Females: Sarah Jane Glossop, Charlotte Hutton.

City Asylum, Newcastle.—Females: Jane Bell Hodgson, Sarah Helen Powell, Charlotte Marie Smith, Janet Trench, Susanna Watson.

City Asylum, Nottingham.—Males: John William Ainger, Thomas Huddlestone, Stephen Pinder. Females: Ellen Cross, Lottie Hollis, Annie Plumb, Eliza White.

Borough Asylum, Derby.—Males: Arthur Barlow, Thomas Betts, William Peake Kestin. Females: Charlotte Alcock, Emma Jane Bostock, Annie Cox, Elizabeth Gutteridge, Caroline Townsend.

Borough Asylum, Portsmouth.—Males: George Edward Barfoot, William Charles Lovell, John Lowe, James George Softley. Females: Jessie Deem Birch, Mary Ann Broderick, Ellenor Kate Cheeseman, Mary Ann Jones.

Borough Asylum, Plymouth.—Males: William Henry Champion, Harry Cooper, George Armstrong Shepheard, William Nathaniel Dante Smith.

Borough Asylum, Sunderland.—Males: William Alder Aitchison, Charles Sydney Duffield, Arthur Lunn. Females: Elizabeth Ann Bell, Mary Jane Johnson, Mary Margaret Sheppard, Jeannie Malcolm Stewart.

Darenth Asylum, near Dartford.—Males: Frank Dear, Charles Stuart Gordon, Arthur Charles King, John William Priddle, Henry Charles Randolph, Hugh Sibbett. Females: Louisa Barrett, Harriett Mary Downey, Emily Hannah

Jacobi, Estelle Rose Penny, Rosamond Annie Rayner, Ellen Rogers, Amy Henrietta Tillett.

Holloway Sanatorium, Virginia Water.—Males: Daniel Arden, Tom Alfred Burgess, Alfred William James Cheeseman, Walter Frederick Fox, Albert Charles Norman, Harry Tott, Robert Reginald Tucker. Females: Annie Elizabeth Russell Chennell, Mabel Hayley Godfrey, Esther Thomas, Bertha Turpin, Ingegerd Sonesson.

Leavesden Asylum, near Kings Langley.—Males: John George Bennett, George Fox. Females: Sarah Theresa Coffey, Zita Alcock, Emily Densham, Catherine Smith, Agnes Wilkinson.

The Retreat, York.—Males: Joshua Kitching, John Robinson. Females: Madeline McGee, Ada Sutton Sleightholme, Phœbe Elizabeth Witcherley.

SCOTLAND.

Argyle and Bute Asylum, Lochgilphead.—Female: May McCabe.

James Murray's Royal Asylum, Perth.—Females: Ellen Baxter, Jessie Hastings Hunter, Clara Isabell Louisa Johnston, Isabella Skeen.

Gartloch Asylum, near Glasgow.—Males: Alexander Bannatyne, Dugald McPhee. Females: Agnes Maxwell, Isabella Walker.

District Asylum, Inverness.—Female: Mary Ann Hendrie Brebner.

Lanark District Asylum, Hartwood, Shotts.—Male: Neil McPherson. Females: Nellie Forsyth, Lizzie Martin, Janet Taylor.

Midlothian and District Asylum, Rosslyn Castle.—Female: Mary Reed.

Perth District Asylum, Murthley.—Male: James Lakie. Female: Ella Charlotte Springett.

Roxburgh District Asylum, Melrose, N.B.—Male: William Gerrie Quirie. Females: Frances Cossar, Lizzie Craib, Mary Blake Hall.

Royal Asylum, Glasgow.—Male: David Paton. Females: Christina Murray Dundas, Alexandrina King Greenwood, Margarite Campbell Macmillan, Margaret McLaren, Jeannie Robertson.

Royal Asylum, Aberdeen.—Males: Alexander Barclay, John French, Robert Pittendrigh, William Young. Females: Elsie Watson Anderson, Catherine Fraser, Sophia Gavin, Elizabeth Nicol Lowden, Margaret McBain, Annie McGregor Rae, Isabella Ross, Jeannie Ross, Mary Ross, Annie Bella Shaw, Elizabeth Kelly Tyre, Agnes Hamilton Walker, Helen Whyte.

Royal Asylum, Dundee.—Male: George Gair Ellis.

Royal Asylum, Edinburgh.—Males: John Corsie, Alexander Donald, William Hendrie, David Hosie, John Munro, William Shaw, David Scott, Thomas Shankie. Females: Bella Burley, Mary Ellis, Katherine Fraser, Kate Grant, Jane Geddes, Margaret J. Henderson, Annie McKenzie Hodge, Isabella Malcolm, Margaret McLennan, Margaret Ross, Georgina Taylor, Daisy Maud Vallance, Elizabeth Lockhart Walker, Isabella Watson Webster, Margaret Wylie.

Stirling District Asylum, Larbert.—Females: Jessie Maccoll, Anne Henrietta Wise.

Woodilee Asylum, Lenzie.—Females: Jessie Keating, Margaret Read.

IRELAND.

District Asylum, Ballinasloe.—Males: Michael Egan, Maurice Keane, Laurence Morgan, Martin Ryan. Females: Lucy Lally, Annie Moran, Bridget Murray, Doro O'Sullivan, Mary Shaughnessy.

District Asylum, Carlow.—Males: Patrick Devereux, William Mahon, Henry Treacy, Lizzie Burke, Margaret Stephenson.

Donegal District Asylum, Letterkenny.—Males: George Buchanan, Bernard Kennedy, Matthew Lucas, William J. Morrow, Andrew McDonald, John McGrorey, Andrew McLaughlin, Daniel McMonagh, James Thompson, William Turner, John Russell.

District Asylum, Cork.—Males: Patrick Bourne, John Burke, Richard Gardiner, Michael Geary, Thomas Alexander Linton, James O'Farrell, Denis Hayes, Charles Regan, William Spillane. Females: Kate Garvin, Ellie Murphey, Julia O'Brien.

District Asylum, Limerick.—Females: Margaret Butler, Ellen Carey, Mary Egan.

District Asylum, Londonderry.—Males: Christopher C. Oxford. Females: Catherine Jane Donaldson, Margaret Theresa Harte.

District Asylum, Monaghan.—Males: Thomas Clarkin, Peter Hamill, John McCoy, John Ross. Females: Mary Ann Corr, Lillie Crozier, Ellen Johnston, Minnie McEndoo, Sarah Anne Pollock, Harriett Matilda Patton.

Richmond Asylum, Dublin.—Males: Edward Bourke, Cornelius Courtney, Michael Kenna, Thomas Marron, Bernard McKenna, Thomas Ryan, Lawrence Redmond. Females: Maggie Beggin, Maggie Connolly, Mary Keegan, Mary Somers.

Stewart Institution, Chapelizod, Co. Dublin.—Female: Kate Traynor.

The following is a list of the questions which appeared on the paper: 1. What are the different kinds of joints? Give examples of each and state what movements may take place at them. 2. What are the different kinds of nerves and what are their uses? 3. What do you understand by ventilation? How would you ensure proper ventilation in a sick room? 4. Describe the different modes of carrying helpless patients. 5. Distinguish between a simple and a compound fracture of bone; which is the more dangerous? 6. What is the average temperature of the body as found in the Axilla? What would you expect in a case of Dementia, and what in a case of General Paralysis of the Insane? 7. Mention some of the differences between attendance on the insane in Asylums, and in private houses, respectively. 8. Give a brief description of the heart, and of the circulation of the blood. Describe the composition of the blood, and state the difference between arterial and venous blood. 9. How would you prevent—as far as lies in your power—the spread, amongst your patients, of Phthisis? 10. Mention the different kinds of Enemata with which you are acquainted; state their uses and composition.

Next Examination for Nursing Certificate.

The next examination will be held on Monday, November 4th, 1901, and candidates are earnestly requested to send in their schedules, duly filled up, to the Registrar of the Association, not later than Monday, October 7th, 1901, as that will be the last day upon which, under the rules, applications can be received.

Note.

As the names of some of the persons to whom the Nursing Certificate has been granted have been removed from the Register, employers are requested to refer to the Registrar, in order to ascertain if a particular name is still on the roll of the Association. In all inquiries the number of the certificate should be given.

EXAMINATION.

The examination for the Certificate in Psychological Medicine will be held on Thursday, July 18th, 1901, at 10 o'clock a.m., in London, at Bethlem Hospital; in Edinburgh, at the Royal Asylum, Morningside; in Glasgow at the Royal Asylum, Gartnavel; in Aberdeen at the Royal Asylum; in Dublin, at the Richmond Asylum; and in Cork and Belfast, at the District Asylums.

GASKELL PRIZE.

The examination for the Gaskell Prize will be held at Bethlem Hospital, London, on Friday, July 19th, 1901, at 10 o'clock a.m. Candidates for this examination must give fourteen days' notice of their intention to sit to the Registrar. The examiners are authorised to award a second prize in this competition should one of the candidates attain such a standard as would justify them in so doing.

NOTICES OF MEETINGS.

Medico-Psychological Association.

The Sixtieth Annual Meeting of the Association will be held in the Medical Schoo of the Queen's College, Cork, Ireland, on Thursday and Friday, July 25th

and 26th, 1901, under the Presidency of Dr. Oscar T. Woods. There will be a meeting of Committees as follows, on Thursday, July, 25th, before the Annual Meeting: Educational Committee 9 a.m., Parliamentary Committee 9.30 a.m., Council Meeting 10 a.m.

The Annual Meeting commences at 11 a.m. on Thursday.

In addition to the usual business, the following resolution will be proposed by Dr. A. R. Urquhart:—"To consider the right of the Medico-Psychological Association in all papers read at its meetings, and whether all communications to the Association should not be the property of the Association."

2 p.m.—The President's Address, after which papers will be read by

JOHN CARSWELL, L.R.C.P.Edin., L.F.P.S.Glasg. (Convenor of Committee on Inebriates Corporation of Glasgow) "On the Working of the Inebriates Act." THOMAS DRAPES, M.B., Medical Superintendent, District Asylum, Enniscorthy, Ireland, "Insanity and Phthisis." J. MICHAEL NOLAN, L.R.C.P.I., M.P.C., Medical Superintendent, District Asylum, Downpatrick, "Residual Lunatics and Recent Legislation." F. W. EDRIDGE-GREEN, M.D., F.R.C.S., Hatchcroft House, Hendon, London, N.W., "Evolution of the Colour Sense." E. D. O'NEILL, L.R.C.P.I., Medical Superintendent, The Asylum, Limerick, "The Superannuation Question—its effect on Asylum Officials, with suggestions for further legislation on the Subject."

Friday, July 26th, 10 a.m.—PROFESSORS DIXON AND BERGIN, "Stereoscopic radiography." JOSEPH SHAW BOLTON, M.D., B.S., B.Sc.Lond., Claybury Hall, Woodford Bridge, Essex, will give a lantern demonstration—"Gross Lesions of the Cerebrum." GEORGE REVINGTON, M.D., Univ. Dubl., M.P.C., Medical Superintendent, Central Criminal Asylum, Dundrum, Ireland, will read a paper on "Mental Conditions Resulting in Homicide." W. C. SULLIVAN, M.D., R.U.I., H.M. Prison, Pentonville, London, N., will read a paper entitled "Crime in General Paralytics."

2 p.m.—JOHN KEAY, M.B., Medical Superintendent, District Asylum, Inverness, will initiate a discussion—"On the Care of the Insane at Night." A. R. URQUHART, M.D., F.R.C.P.E., Physician Superintendent, James Murray's Royal Asylum, Perth, will read a paper on "Effect upon Patients of Changes of Asylums." DANIEL F. RAMBAUT, M.D., Univ. Dubl., Assistant Medical Officer and Pathologist, Richmond District Asylum, Dublin, will read a paper entitled "A case of Cerebral Hemiatrophy." R. R. LEEPER, F.R.C.S.I., Resident Physician, St. Patrick's Hospital, Dublin, will read a paper entitled, "Three Cases of Melancholia presenting Symptoms of unusual Clinical Interest," and he will show microscopic specimens and photographs.

The PRESIDENT, Dr. OSCAR T. WOODS, and Mrs. OSCAR WOODS will be "At Home" to members and their friends on Friday, July 26th, from four to seven o'clock, at the District Asylum, Cork.

Saturday, July 27th.—An excursion has been arranged by Dr. OSCAR T. WOODS to Killarney, but as this depends upon the number of members desiring to go, a reply is requested to Dr. FINEGAN as soon as possible, so that the arrangements may be completed.

The Annual Dinner will take place at the Imperial Hotel, Cork, on Thursday, July 25th, at 8 p.m.; tickets £1 1s. each.

Società Freniatrica Italiana.—The Eleventh Congress will be held in Ancona from the 29th September till the 3rd October, 1901.

South-Eastern Division.—The Autumn Meeting will be held at the Holloway Sanatorium, Virginia Water, on Wednesday, 16th October, 1901.

Northern and Midland Division.—The Autumn Meeting will be held at York, on Wednesday, 30th October, 1901.

South-Western Division.—The Autumn Meeting will be held at Bath in October, 1901.

Scottish Division.—The next meeting will be held at the Stirling District Asylum, Larbert; the date has not yet been fixed.

APPOINTMENTS.

Campbell, P. E., M.B., C.M.Edin., appointed Medical Superintendent to the Caterham Asylum of the Metropolitan Asylums Board.

Chessons, Herbert, M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant Medical Superintendent of the Hospital for the Insane at Goodna, Queensland.

Laval, E., M.B.Edin., appointed Second Resident Medical Officer to the Brislington House Private Asylum, near Bristol.

Le Fanu, G. E. H., M.B.Aber., appointed Assistant Medical Officer in the Derby Borough Asylum.

Macdonald, James H., M.B., Ch.B.Glas., appointed Senior Assistant Medical Officer to the Govan District Asylum, Crookston, near Glasgow.

Tighe, John V. E., M.B., B.Ch., B.A.O.R.U.I., appointed Second Medical Officer to the North Riding Lunatic Asylum, Clifton, Yorks.

JOHN DAVIES CLEATON.

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Part I.—Original Articles.

The Presidential Address delivered at the Sixtieth Annual Meeting of the Medico-Psychological Association, held at the Queen's College, Cork, on the 25th July, 1901. By OSCAR WOODS, M.D.

GENTLEMEN,—In the name of the Irish members of our Association I beg to greet you and to wish you a very hearty welcome to Ireland and to our southern capital. I thank you most heartily for the high honour you have conferred on me in electing me your President for the ensuing year. Knowing the ability with which the duties have been performed in the past by the many distinguished men who have filled the office, and living at such a distance from the Metropolis, I at first hesitated to accept the position, but as I felt it was a compliment to Ireland, I decided not to shrink from this duty, believing I shall have the cordial support of all members of the Association.

There have been but few losses to our speciality since the last Presidential Address, and, happily, the obituary list contains the name of only one member of the Association, that of Arthur Law Wade, who graduated in Arts in Trinity College, Dublin, in 1870, and took his M.D. degree in 1873.

He was an Exhibitioner of that University, and an able physician. He first held office as Surgeon to the Royal Isle of Wight Infirmary, and was afterwards Assistant Medical Officer to Tavistock House, Salisbury. Later he was Senior Assistant Medical Officer to the Kent and Warwick Counties Asylum, and for many years had been Superintendent of the Somerset County Asylum, where he died early in the present month.

It is desirable that the names of former members of our Association should be placed on record. William Henry Lowe, F.R.S., at one time a member of our Association, was for many years associated with the late Dr. John Smith in the management of Saughten Hall Private Asylum, near Edinburgh, and graduated there in 1840. He held several professional appointments in Edinburgh, amongst others those of President of the Royal Medical Society, and President of the Royal Botanic Society. He was elected a Fellow of the Royal College of Physicians of Edinburgh in 1846, and President in 1873. At the meeting of the British Medical Association in Edinburgh in 1875 he presided over the section of Psychology, and gave the opening address. He was the author of "Jaundice from Non-elimination," together with remarks on "The Pathological Condition and Chemical Nature of the Bile." In 1875 he settled at Wimbledon Park, and died there on the 26th of last August in the eighty-sixth year of his age.

Mr. Symes, also a former member of our Association, was well known to many of us. He obtained the qualifications of M.R.C.S. and L.S.A. in 1848. In 1852 he went to Devizes, in Wiltshire, where he practised his profession and had charge of a small private asylum. While he was at Devizes he received the appointment of Medical Superintendent to the old Dorset County Asylum at Forston on the death of Dr. Sandon, and commenced his real life's work there in 1854. From this date until his retirement in 1887 he directed the affairs of the Institution, and many and great changes took place during his long tenure of office. From his earliest asylum days he was a strong advocate of non-restraint. He was a good administrator, and possessed a singularly clear judgment and well-balanced mind. In 1887 he retired from his office after thirty-two years of arduous labour, and went to live at Weymouth, where he died on January 14th, 1901.

Professor Korsakoff, not a member of our Association, has died at the age of forty-six, and our speciality has thus been deprived of one of its best and ablest members. He occupied the chair of Chemical Psychiatry at the University of Moscow, and was the author of many contributions to the scientific literature of insanity. Professor Korsakoff's latest work was a paper on "The Pathological Anatomy of Idiocy," presented to the Congress in Paris in August last. For many of these details I am indebted to the ex-President.

It is not right for a President to occupy much time with an inaugural address, especially when he is to be followed by the reading of many able papers which have to be discussed in a limited time, but as this is the first meeting of the Association in the twentieth century I think that a short *résumé* of what has been done for the insane, more especially in Ireland, during the century just closed will not be out of place, and afterwards I wish to point out what I hope will be effected early in the present one.

The Census Report for 1851 states that the first step taken to provide for the lunatic poor in Ireland was in 1728, when the Lord Mayor of Dublin, Sir William Fownes, caused cells to be erected in the workhouse for the reception of lunatics. The Act 11 and 12 George III (1772) was subsequently passed, enabling some provision to be made in workhouses for lunatics; but the first legislative enactment specially directed for the support of the insane appears to have been 27 George III C. 39, which enabled grand juries to present for "the support of insane persons, and to provide wards for their reception in the County Infirmaries." This Act was, however, little availed of. St. Patrick's Hospital (Swift's) was founded in 1745, and at the opening of the nineteenth century the only other provision existing for the care of the insane in Ireland were two institutions known as Houses of Industry, one in Dublin opened in 1772, the other in Cork in 1787, the latter being the larger, giving accommodation for 425 patients, and admitting in the first twenty years of its existence 3443 patients. The present Richmond Asylum, opened in 1815, grew out of the House of Industry in Dublin. In 1817 a Committee was appointed to report on the state of the pauper lunatics in Ireland. It reported: "The common mode of treating the insane was, when a strong young man is thus affected, the only

way they have to manage him is by making a hole in the floor of the cabin not high enough for the person to stand in, with a crib over him to prevent his getting out; the hole is about 4 ft. deep. They give the wretched being his food in it, and there he generally dies. The friends did their best, the State had done nothing. The mode of treating the lunatics in Dublin at this time was by confining them in wooden cells specially constructed for confinement and coercion." Haslam, writing about this time, says that most people believed in moon-madness, or, as described by the Irish, "geal taigh cachet," and states that "some of the lunatics who have recovered informed me that the master of the workhouse himself has been so much under the influence of the planet that keeping in mind the old maxim, 'Venienti occurrite morbo,' he has, without waiting for any display of increased turbulence on the part of the patient, bound, chained, flogged, and deprived the miserable beings of food according as he discovered the moon's ages by the almanack." Such, then, was the condition of the insane at the beginning of the last century.

In 1817 nine asylums were ordered to be built, providing accommodation for 980 patients at a cost of £204,000, or about £208 per bed. In 1821 an Act was passed enabling the Lord Lieutenant to direct any number of asylums to be built for such districts as should seem expedient, and when more than one county was included the asylum should be sufficient to contain not less than 100 or more than 150, but when only provided for one county a number of not less than 50. It was not till the 8 and 9 Victoria, C. 107, was passed that this legislation was repealed. The earlier asylums built were, therefore, all too small; and from that day to the present the Irish asylums have year after year been reported as overcrowded, notwithstanding that asylums have from time to time been built, and the older ones enlarged. At the present date there are 23 asylums accommodating over 17,000 patients, and nearly all are overcrowded.

I extract the following information from the last Report of the Inspectors of Lunatics; it is, however, arranged somewhat differently, in order to show the number of lunatics and idiots uncertified in each census return.

	Lunatics and Idiots in Asylums.	Lunatics at large in Workhouse and in Prison.	Idiots at large in Workhouse and in Prison.	Total not in Asylums.
1851	3436	1840	4704	6544
1861	5016	2452	6630	9082
1871	7551	2622	6322	8954
1881	9443	2227	6743	8970
1891	12,261	3680	5247	8927
1901	16,822	4041	—	—

I regret that the number of idiots uncertified as returned in the last census is not yet available, but I have reason to believe it is not much if at all reduced.

The above figures show that there is still an ample margin for a larger increase in the registerable insane without any increase in the occurring insanity. As a rule all non-medical writers assert that lunacy is much on the increase, and one sapient statistician has calculated that in 400 years the sane people will be "insufficient in numbers to put the insane safely under lock and key." However, the figures given above are such as to cause us to think seriously, and endeavour to suggest a remedy. If we deal with the registered insane alone we find the following figures for the United Kingdom.

	Ireland.	England.	Scotland.
1859	6,734	36,762	6,072
1900	20,803	106,611	15,663

or one registered insane person to the sane population in the following proportions:

	Ireland.	England.	Scotland.
1859	600	535	505
1900	217	301	281

Thus, while in 1859 Ireland was statistically the sanest portion of the United Kingdom, at the present time it has much the largest proportion of insane, having increased from 1 in 600 in 1859 to 1 in 213 of the same population in 1900. The population in 1859 was estimated at 5,861,711; by the last census return, just issued, it has been reduced to 4,456,546. This is largely accounted for by the emigration to the United States, which country is glad to receive our fittest and best, but takes good care to return those who do not prove them-

selves mentally and physically sound, sending home those who show the slightest symptoms of insanity, even after years of residence there. It is very doubtful whether the latest attempt to deal with the chronic insane in this country will bear good results. The Local Government Act of 1898, Section 76, makes special provision for the care of the chronic, and incorrectly called harmless insane, but only provides a rate in aid of 2*s.* per head per week. This amount was I am sure paid under a misconception, as the cost of 3*s.* 6*d.* per week mentioned in the Act evidently only referred to cost for food incurred in many of the workhouses. A little agitation on the part of Irish members could, I am sure, have this increased to 4*s.*, and even if the Local Taxation Account should fall short, which is possible, no Government could refuse to contribute the full quota to secure proper care for Irish lunatics. This provision of 2*s.* in the Act was evidently provided in order to better the condition of the unfortunate insane in the workhouses, who are admitted by all to be very inadequately provided for; but if the grant is not increased it will not be thought advisable to transfer patients from existing asylums, where a rate in aid of 4*s.* per head per week is contributed, to another institution where only 2*s.* would be received, even though it would be necessary to add inexpensive building to all the existing asylums. It is manifestly unjust to force on the county councils the responsibility of providing for all the insane, but to lower the rate in aid per head to 2*s.* for all in so-called auxiliary asylums.

A very serious responsibility is put on all superintendents by the Act of seeing that the patients sent to these auxiliaries are fit to be cared for in them. Much, therefore, must depend on the structure and staffing of these institutions as to the number of patients that can be selected for them.

Many might be found who, in the words of the Act, would "not require special care and treatment in a fully equipped asylum;" but every chronic lunatic is liable suddenly to become dangerous, and these institutions, if eventually found to work well, must be properly staffed and closely supervised.

It is unnecessary here to argue the important and much-vexed question as to whether primary insanity is on the increase or not, but as the number of registered insane is increasing and has to be provided for, every effort should be made to arrest, if possible, the progress of the disease.

Before dealing with what should be our aim in the future, I would wish to refer shortly to the marked difference in the type of insanity in Ireland and in Great Britain. While a large number of the patients admitted into the asylums of this country are acutely maniacal, there is much less general paralysis and epilepsy. The following table shows the percentage of admissions suffering from these diseases in each country:

	General Paralysis.			Epilepsy.		
	M.	F.	T.	M.	F.	Both sexes.
England . .	12·5	3·0	7·6	9·7	7·2	8·4
Ireland . .	2·3	·02	1·1	4·0	3·1	3·7
Scotland . .	6·8	1·3	4·0	—	—	—

The percentage of epilepsy in Scotland has not been shown for some years, but the last return published by the Commissioners of Lunacy showed that 8·5 per cent. of the patients then in asylums suffered from epilepsy. How can this difference be explained? I do not think we have far to seek for a reason; the three W's of a well-known writer may, I think, be accepted as the prominent causes of general paralysis, or to put them in a slightly altered form—syphilis, hard living, and intemperance. These three causes are much less potent in Ireland than elsewhere. Syphilis, which is so frequently the cause of general paralysis, is rare in this country, although bad cases are at times met with, owing to the disease having been concealed from the reluctance of those afflicted to put themselves under treatment, while in England and Scotland it is, at least in some districts, very common. Then the life led by the agricultural classes in Ireland is altogether different to the anxious, exciting, and toilsome life led by the town classes in England and Scotland, especially in the cities and mining districts; and alcoholic stimulants, which no doubt contribute largely to this disease, are consumed in a very different way in the two countries. While the Irishman feels bound to enjoy himself at fairs, races, when on holidays, etc., and such bouts often bring on acute attacks of insanity, he often abstains altogether for days, while the quantity taken into the system daily by the hard-working labourer and miner in England is indeed remarkable. I can recollect no case of general paralysis ever coming under my notice in Ireland, in an agricultural labourer

who had not at some time been out of his own country. Soldiers, sailors, and occasionally members of the constabulary force, are mainly the sufferers. Unless these reasons also account for the small proportion of epilepsy in Ireland I can give no explanation. A form of insanity, however, by no means uncommon in this country is *folie à deux*, taken in its widest sense. Several cases have come under my notice of whole families becoming insane; usually one member has been insane for some time, the other members of the family, neurotic, superstitious, and ignorant, have suddenly, usually from some exciting cause, all become acutely maniacal, and imbued with the delusion of the first affected.

The transmission of insanity by heredity is of vast importance, and has not, I think, been sufficiently dealt with by either the legislator or the psychologist, possibly for the reason that it is almost impossible to prove how far it is responsible. In nearly a third of the cases in this country no history is available, and in many instances the relations are unwilling to give information, and it is often only by patient cross-examination that it is possible to get the friends to acknowledge any hereditary disease. The information as regards heredity is looked upon as so unreliable in Scotland that the Scottish commissioners do not publish statistics on the point. The annual report of the English commissioners and Irish inspectors give the following as percentages on the admissions.

	Male.	Female.	Total.
England . . .	20·0	25·3	22·6
Ireland . . .	24·1	22·0	23·1

In American asylums, so far as I have been able to ascertain from returns kindly furnished me by some of the superintendents in that country, it is 20 per cent. In so many cases no history is available, the calculation should be made not on the total admissions, but on the cases about which accurate information has been obtainable, and this would give over 30·0 per cent., but even this is, I believe, much below what is correct; again, it is only those dealing every day with the insane who recognise the close affinity of insanity with epilepsy, crime, and drunkenness, and the danger of transmission

from those so affected. What therefore should we aim at in the near future? Prevention should be the main object; by—

1. Arresting heredity.
2. Encouraging in every way early treatment.

Attention should also be devoted to the following points:

1. Providing hospitals for the treatment of curable patients.
2. Providing villas for phthisical patients.
3. Promoting pathological research.

The legislator points to the scientist and expects an answer from him as to how the progress of insanity can be arrested; but this is not altogether a medical question, and the legislator and the expert must work together for the public weal if good is to be the result.

1. The danger of transmitting insanity might be greatly lessened by more judicious marriages. I could give you case after case of patients who have been more than once in an asylum entering into marriage shortly after discharge. Of course such cases are almost bound to break down again, and to propagate children defective from birth, or who will develop insanity at some important epoch of life. Another factor in Ireland which aggravates the tendency to heredity is emigration, which has so reduced the population, removed the fittest, the marrow of the country, and left at home those least fitted to fight the battle of life, and most prone to transmit disease. In some districts in the south and west of Ireland it is almost unknown for a man to select a wife outside his own circumscribed valley or neighbourhood, and this dislike to bring in new blood has very evil result.

I know in some districts almost all the people bear the same name, and another has to be added on to distinguish the families. I do not think it would be impossible to take steps, both medically and legislatively, to arrest to some extent heredity. This is a matter of vital importance if we are to retain our present position amongst other nations, of absolute necessity to the prosperity of the country. Typhus fever, smallpox, diphtheria, have been almost stamped out by sanitary precautions; typhoid fever and other diseases are prevented by inoculation; why then should not every possible step be taken to prevent the most pitiable, the most expensive, and to a nation the most degenerating of all diseases? It might be declared illegal to

discharge any man or woman from an asylum during the procreative period of life unless perfectly recovered. Marriages of discharged patients ought not only to be discouraged but, under certain circumstances, prevented by law, and practising medical men ought to be more alive to the danger of the neurotic and those predisposed to insanity contracting unsuitable marriages. Many will say you cannot interfere with the liberty of the subject, and restrictions of this kind are out of the question, but if this evil is not anticipated and dealt with more actively than at present, insanity must increase.

2. The necessity for early treatment has not been sufficiently recognised either by the public or by law; nearly 50 per cent. of the insane are kept at home until they become a source of danger, thereby considerably lessening the prospect of their recovery, and acting as a means of propagating insanity and transmitting disease. I think it will be accepted that 45 per cent. of those admitted to asylums may be classed as incurable, many of them rendered so because they have not sooner been put under treatment, the friends looking on asylums as prisons, and believing patients cannot be sent in until they commit some indictable act, and except in very acute cases keeping them at home till they become dangerous to themselves and those about them.

3. A greater effort should be made to deal with premonitory symptoms, to watch those with hereditary predisposition at the critical periods of life, and establish hospitals throughout the country where neurotic patients of all kinds could be treated. It should not be necessary to wait till certificates can be signed. Many asylums in England are now opening outdoor departments. If this could be carried out I believe the loss of many valuable lives by suicide would be prevented and the actual number coming under certificates would be lessened. Greater provision should also be made in all asylums for the separation and treatment of curable patients. I do not think any patients regarding whom there is a possibility of cure, should be allowed into a ward with chronic patients, but should be separated in small wards according to their mental condition, and placed in charge of fully trained nurses in the proportion of at least one to five. A great step in advance has been made in the recently constructed English and Scottish asylums, but I hope before long every asylum admitting acute cases will

have its detached hospital for curable patients, very much on the lines planned for East Sussex, and so lucidly explained to us last year by Dr. Hayes Newington. I presume it will be admitted that in the majority of asylums not more than 5 per cent. of the population are curable, and for them money ought to be spent ungrudgingly. It is difficult to treat properly acute mental cases, many of them of the most nervous temperament, in the wards of a chronic asylum, but less expensive buildings than most of the English asylums would, I think, suffice for the care of many of our demented patients.

4. When we find that the death-rate from phthisis varies from 17 to 40 per cent. in asylums, it is surely necessary that more active steps should be taken to arrest a disease which is now generally recognised with proper precautions to be preventable. No doubt the insane are specially prone to it, and it is very difficult of detection without the careful observation of both physicians and nurses; but with early recognition, complete isolation in suitable villas with a maximum of sunlight and open air, and a thorough disinfection and destruction of all bacilli, much might be done to stamp out a disease infectious and in a well-organised institution largely preventable.

5. Pathological work will, I trust, take its proper place in asylums, and the good example shown by the London County Council and Scotland be followed in other districts. At present an effort is being made to legalise the appointment of a pathologist for the Irish asylums, and will, I hope, bear fruit at an early date. The Chief Secretary in reply to a deputation that waited on him recently acknowledged the necessity; with his sympathy and aid I hope the difficulty will soon be got over, and that the various asylum committees will quickly co-operate and appoint men of the fullest experience to carry out a work of vast benefit not only to the present, but to the future generation and to the nation at large.

But these recommendations mean money. Much can be done in England and Scotland that cannot be attempted in Ireland, and it may not be out of place here to quote a sentence from the report of Dr. Curwin, Superintendent of the Warren Asylum, U.S.A., who not long ago visited this country, and referring to Irish asylums wrote:—"It is earnestly and sincerely to be hoped that the English Government, which has the control and direction of all matters concerning the expenditure

for such institutions in Ireland, will awaken to the urgent necessities of the situation, and extend a helping hand and a generous support to the most dependent of its people by the provision of more extended means for their relief and maintenance."

Although the English Government has not the control and direction of matters concerning the expenditure, I fear much must remain undone till more liberal aid is given by the Government for the maintenance of the insane poor. Lunatics have a special claim on the State, why should not the example which has been set with such good results by the American Government be followed, and asylums be supported altogether out of State funds?

This change was inaugurated in the United States on October 1st, 1893. What are the results, and what was almost the first recommendation of the Commission? "That in all State hospitals which are not already provided with suitable facilities for specialised individual treatment of recoverable cases, provision be made for the erection and equipment of small hospitals sufficient to accommodate about twenty-five patients each with their attendant nurses, one building for either sex, and that these buildings be supplied with everything in the way of structural arrangements and medical appliances and equipment that may be regarded as necessary to ensure to their inmates the highest degree of medical skill and treatment." The State Commission also made provision for pathological research of the most complete kind, recognising that the pathology of insanity is not definitely established, and the great advantage that medical science, and through it the general public, would derive from correct knowledge of this subject, which might be applied not only to the cure but also to the prevention of mental disease. The Commission feels that the importance of this recommendation can scarcely be overstated. Now, what is the result of this important change? Dr. Wise, President of the State Commission in Lunacy, giving his experience of five years' working, states that the State Care Act "will ever stand as a monument of the progressive spirit of our Commonwealth." He quotes one superintendent who was opposed to the change, but who now writes, "In all that pertains to the care and treatment of the insane, whether it be in structural provision, equipment, a high standard of repair, nursing and

personal attendance of patients, the medical service and scientific inquiry and observation, the personal liberty and diversion of patients, and all that tends towards their cure, contentment, and comfort; the quality and preparation of food to the physiological curative needs of the insane; the clothing of the patients, and in all other things this hospital has progressively and steadily advanced its standard under the present system, and I truly believe this applies to all the other hospitals in the department of insanity." Testimony such as this is abundant, and while there is a unanimity of opinion that the standard of improvement has been raised by 50 per cent., it has been effected at a reduction of the cost of more than 20 per cent. Dr. Wise is so enamoured of the good done that he concludes his pamphlet in the following words:—"Like planting and cultivating will produce an equally rich harvest in all institutional work for charity, reform, and correction."

This is, indeed, remarkable and very strong testimony, and ought not lightly be set aside; we live to learn, and in a poor country, such as this, State aid cannot be too liberally dealt out to the most afflicted of all God's creatures. Whatever legislation decides as to the future of the insane, we must not forget that we have committed to our charge those unable to assist themselves. We are in all cases their guardians and guides; let us then endeavour to do our duty, so that it may be said of us, as Shakespeare said of the faithful servant:

> "O good old man, how well in thee appears
> The constant service of the antique world,
> When service sweat for duty not for need!
> Thou art not for the fashion of the times
> When none will sweat but for promotion."

Dr. CONOLLY NORMAN: It becomes my pleasing duty to propose a vote of thanks to our President for his very able address. Were I to attempt to discuss Dr. Woods' address I would find myself embarrassed by the great range that he has covered, by the multitude of subjects he has dealt with, by the erudition he has displayed in his fine historical retrospect, and generally by the wide grasp he has shown of everything pertaining to the care of the insane. His address shows this to those of us who are not personally familiar with him and his work, that in our new President we have a progressive man,

who knows what has been done in the past, and what remains to be done in the future, and who will carry the standard still further. I hope that during his year of office a considerable advance in the management of the insane will take place in this country, and that he will leave his mark upon the subject with which we are dealing. I have, then, to propose a cordial vote of thanks to our President for his admirable address.

Dr. MILLER: It does not require any words from me to enlarge upon the merits of Dr. Woods' able and suggestive address. He has displayed a profound knowledge of his subject. I second the vote of thanks with great pleasure.

The ex-President put the resolution to the meeting and it was carried by acclamation.

The Working of the Inebriates Act. By JOHN CARSWELL, F.F.P.S.G., L.R.C.P.E., Convener of Inebriates Committee, Glasgow Corporation.

I PROPOSE to deal with this subject under the three following heads:

1. What the Act was expected to accomplish.
2. What it is accomplishing.
3. What an adequate Inebriates Act ought to accomplish.

First, then, what was the Act expected to accomplish?

The story of the agitation for legislation in the case of inebriates is long, and to ardent minds disheartening. Parliament was reluctant to move in the matter for several reasons. For on the one hand, drunkenness in itself is no crime, and on the other, inebriety has not been proved a disease. Accordingly when attempts were made to formulate schemes for the control of inebriates, the Legislature found no clear ground upon which to proceed. Parliament could not be asked to declare that to get drunk must *per se* be constituted a crime: and there were many difficulties in the way of asking legislation for habitual drunkenness as a disease, on lines similar to the legislation for such diseases as Parliament had hitherto placed under control, as for example, infectious diseases and lunacy.

But that drunkenness was at the bottom of most crime and much pauperism and lunacy required no formal proof; everybody who knew anything of crime, pauperism, and lunacy, knew that well. And that habitual drunkenness presents many of the characteristic features of disease, and may be fairly classed as a functional disorder, most medical authorities are agreed. In view therefore of the deplorable facts of crime and disease and social incapacity associated with habitual drunkenness, and in consideration of medical opinion regarding the nature of the drink habit, the Legislature made the attempt of putting into an Act of Parliament proposals which it was hoped might meet the demands of the case. It was admittedly a bit of experimental legislation, and Parliament never puts heart into experimental legislation, except, perhaps, when it is legislating for Ireland.

What Parliament attempted to do was to fix upon the most common offences presumably caused by drunkenness, and to make four convictions for such offences within twelve months the ground for dealing with the persons so convicted as habitual drunkards, and subjecting them to a course of treatment for inebriety. In other words, the Act, as passed, is an attempt to provide for the control of persons who are adjudged to be criminal, who are yet not to be punished for crime but treated for disease. Now in spite of its want of logic it appeared a practical proposal. But the class of offences, scheduled in the Act, four convictions for which may bring a person within the scope of the Act, if he be also a habitual drunkard, limits its operation practically to the street pest, drunken prostitute, and thief, and the drunken flotsam and jetsam of our towns.

The expectations of the Government as to the results of the Act when first put into operation, were very great. The Secretary for Scotland in a circular dated February 22nd, 1899, issued to the local authorities in Scotland, said:

"From the police returns appearing in the appendices to the Report of the Committee, it is evident that unless a most deterrent effect is produced by the passing of the Act, provision will have to be made for a considerable number of cases which so far as Burghs are concerned, will probably be increased if the charges of breach of the peace can in some instances be replaced by charges of drunk and disorderly as

pointed out by the Committee in their report.(1) . . . . ." And he goes on to say that he "earnestly hopes . . . . . that a fair and reasonable experiment of the Act may prove, not only that a large percentage of these unfortunate inebriates are capable under careful and humane treatment of reformation and restoration to useful lives, but that ultimately both the Imperial and local Exchequer and local funds will in this way be relieved by a sensible decrease in the population now located in our prisons and poorhouses."

Such were the expectations of the Government Department. I venture to say that they were high-pitched, and were scarcely justified by the provisions of the Act. True, a number of statements were made by the Departmental Committee whose inquiries seemed to justify such expectations.(2) But contrast such a statement with the actual facts as they exist under the provisions of the Act. In Glasgow the number of persons convicted three times and over for offences under the Inebriates Act 1898, and amending Act for the year ending June 30th, 1901, was—

Males	41
Females	139
Total . . .	180

of whom twenty-six were over fifty years of age. (*Note.*—Many persons who are apprehended for being drunk and incapable are released on payment of a pledge, and do not appear at court, consequently no convictions are recorded against them.)

In London the number of persons convicted of drunkenness three times and over at the Metropolitan police courts, was—

Males	161
Females	258
Total . . .	419

The difference between the statements can be explained by the circumstance that the Act, as framed, does not carry into practical effect the views and intentions of the Departmental Committees, upon which the legislation was professedly based. There is no doubt that the expectations regarding the effect

of the Act, were founded upon the Committees' reports rather than upon the actual provisions of the Act. My point will become clearer when I pass to consider, secondly, what the Act is accomplishing.

The London County Council and Glasgow Corporation are, so far as I know, the only two municipal bodies which have directly undertaken the work of establishing and maintaining reformatories under the Act. Thirteen English County Authorities and ten Borough Authorities have entered into an arrangement whereby a reformatory is maintained at Brentry near Bristol. The Lancashire County Council has obtained a special Act, so as to secure a workable combination of local authorities within its area, but so far as I know no establishment has been set up.

The London County Council scheme comprises provision at Farmfield, Horley, Surrey, for thirty-three females; provision for Roman Catholic women at St. Joseph's, Ashford, Middlesex; and an arrangement with Lady Henry Somerset for the reception of a few women at Duxhurst, Surrey. This last arrangement is, I understand, about to cease, as it has been found that the class of inmates committed under the Act does not make a suitable combination with retreat cases, which is the proper work of Lady Henry Somerset's Home. The London County Council is about to build accommodation at Horley for eighty female patients to replace the present accommodation.

Glasgow Corporation secured a licence for fifty-eight inmates for their institution at Girgenti, near Irvine, Ayrshire, and there are now sixteen inmates.

The number of persons presently under care is something near the following:

	Males.	Females.
London County Council Home at Horley .	—	33
St. Joseph's Council, Ashford . . .	—	75
Brentry Homes, Bristol	25	125
	25	233
Total for England . . 258		

There are a few additional patients in Duxhurst, and several have been under care and discharged for various reasons, bring-

ing up the total of persons in England committed under the Act to something like 300, almost entirely females.

	Males.	Females.
Glasgow Corporation Home . . .	—	16

These figures refer only to persons committed under the Act, and take no account of voluntary residents in retreats or other institutions.

A State Reformatory has been set up in Scotland, but so far there have been no committals.

I have visited the Homes in England, and so far as I observed, the inmates were similar as regards previous history and general character to those committed in Scotland. I can only speak of the persons we have at Girgenti, but probably similar remarks may apply to the English cases.

Dr. Branthwaite's summary of the class of cases under care in the English institutions may be quoted in this connection.

"Judging roughly from the general aspect of the cases at present under control, it is evident, as might reasonably be expected, that the very worst type are being sent first. A large percentage of them if not actually lunatics, are distinctly borderland cases, and as such, from a curative point of view, unlikely to produce good results except by long-continued and possibly repeated periods of treatment."(3) "Ten to 15 per cent. of total committals have proved almost uncontrollable."(4) He recommends such cases to be transferred to State Reformatories.

The following are the chief characteristics of the patients under care at Girgenti.

(*a*) They have, of course, been repeatedly in prison.

(*b*) They have nearly all been also in poorhouses repeatedly.

(*c*) At least one has been in an asylum, and several might have been, while one is a partial dement, nomadic in habits.

(*d*) Several have been voluntary residents in homes of various kinds.

(*e*) They have all lived loose lives, and a number have been convicted of prostitution.

(*f*) Several have admittedly had syphilis.

(*g*) Of the sixteen only one was living with husband or other relative, and her attachment was of the most slender character.

(*h*) With perhaps two exceptions out of the sixteen, it may be said that they were all living loose, degraded, idle, and abandoned lives, and that drunkenness only played a part in the general degradation.

With the generous treatment they have received, dietary being good, accommodation excellent, and discipline kindly, they have all, without exception, done well, both as regards behaviour and improvement in health. We have received several of the worst street pests and most violent and abusive women known to the police in Glasgow. The London County Council and Branthwaite say they have from 10 to 15 per cent. of refractory cases; we have had no such experience.

Among our inmates there are no wives and mothers with husbands and children anxiously and affectionately awaiting their return home, to fill once more a useful place. At best we have some whose husbands, mothers, or brothers and sisters, faintly, but rather indifferently, hope they may improve. It is already quite clear that we have not only to cure our patients of their degraded habits, but have to plant them again on their discharge in fresh social surroundings, otherwise we can hardly expect any good results.

In the discussion which follows this paper I wish for an answer to this question: Were the expectations as to the good results of the Inebriates Act based upon the knowledge that the class of persons I have described would be the only persons dealt with under the provisions of the Act, and were the elaborate regulations framed by an expert committee, of which Dr. Clouston (who, I see, is present to-day) was a member, intended to regulate a glorified combination of prison and poorhouse?

Having said so much upon the actual facts in relation to the expectations that were entertained as to the likely effects of the Act, I must add my conviction that, in spite of defects and difficulties, we shall be able to secure some good results. I think the work is well worth doing, even if the most valuable result of present operations is to show how it can be done better and more cheaply.

And now, lastly, *what ought an Inebriates Act to accomplish?*

The fact is already manifest that the framers of the Inebriates Act missed their way in a complicated problem by not boldly facing the whole case as the Departmental Com-

mittees advised them. The evidence given before them proved that habitual offenders, paupers, and vagrants are of intemperate habits, but unless the definition of habitual inebriates is made more strict than it is necessary or desirable to make it, experience of the Inebriates Act shows that the majority of such persons cannot be brought within the scope of an Act which limits the offences scheduled to such as are directly associated with the acute stage of inebriety, viz., intoxication. To be a known vagrant and pauper, and also of intemperate habits, ought to be sufficient to deprive a man or woman of liberty to become a burden and pest to society. The majority of those people are outside the scope of the Inebriates Act, and those of them who have come within its provisions are wrongly there. The wide-spread disappointment that the Act does not deal with the non-criminal inebriate—the most clamant case of all—need not be referred to. But we can only hope that, legislation having been once started, it may proceed to make some provision to meet this pressing evil. A satisfactory Inebriates Act ought to embrace provision for these three distinct classes of persons who are sources of danger, annoyance, and expense to society, viz.:

1. Vagrants, paupers, and others of loose and degraded habits.

2. Inebriates who have committed offences while under the influence of drink, but who do not belong to the first-named class.

3. Inebriates of the non-criminal class.

Meanwhile it is our duty to work the existing Acts for all they are worth, and so get out of them what they may be capable of yielding of benefit to the unfortunate victims of drink committed to our care, and of guidance for further legislation upon broader lines.

(1) This has been done by the passing of an amending Act.—(2) "Including drunk and incapables we are well within the mark if we take it that 90 to 95 per cent. of the adult offenders, charged before police magistrates in Scotland with offences other than contravention of local police regulations, are under the influence of drink at the time when the offences are committed" (*Report*, p. 46).—(3) *First Report of the Inspector of Certified Reformatories under the Inebriates Acts*, 1879 to 1899, p. 38.—(4) *Ibid.*, p. 39.

Discussion

At the Annual Meeting of the Medico-Psychological Association, Cork, 1901.

Dr. Newington.—I can support what Dr. Carswell has said in reference to the failure of the Inebriates Act. County Councils have in some cases spent much

money in securing accommodation at such institutions as Brentry, and have been unable to take it up because of the limitations imposed by the Act in qualifying persons for admission. Judged by the Parliamentary standard we have not a single habitual drunkard in East Sussex. This state of affairs is causing great concern at Brentry in regard to its male accommodation.

Dr. CLOUSTON.—British legislation in regard to habitual drunkards has been characteristic. We first had the Dalrymple Act, which merely provided permissive detention. That was a dead failure. Lastly, we have the Inebriates Act of which Dr. Carswell has spoken. That is useful for one purpose only. For the first time in this country the principle was adopted that excessive drinking and its effects was a matter to be dealt with by prolonged restraint and medical treatment, irrespective of the patient's consent. The Legislature in its extraordinary caution provided that before one could get the benefit of this Act, one must be convicted four times. That fact carefully provided that the Act would be of little service. There is no doubt that it is waste of money trying to reform persons convicted in that way. But that does not prevent the Act being of value as a precedent when the Legislature makes a workable provision, as suggested by Dr. Carswell, for the treatment of the non-criminal inebriate. I hope that this discussion will carry conviction to the public and to the Legislature, so that we shall have an Act which will really benefit inebriates.

Dr. FLETCHER BEACH.—As a result of Dr. Sutherland's paper at a recent meeting of the British Medical Association, a resolution was passed by the Psychological Section and sent up to the Council, urging that in any legislation brought forward in regard to inebriety, more complete provision should be made for inebriates, and a suitable Bill was prepared for introduction to the House of Commons. I would suggest that Dr. Carswell should forward his suggestions to the Inebriates Committee of the British Medical Association of which I am a member.

Dr. URQUHART.—I am afraid that I cannot fall in with the suggestion of Dr. Fletcher Beach. The Inebriates Committee of the British Medical Association is not a committee upon which I personally would desire to serve. The other day they produced a very extraordinary report under the ægis of Dr. Archdall Read, which will require some attention on our part. Year after year we have dealt more or less wisely with this question of drunkenness, but our Association has never taken its rightful place with regard to alcoholism, with which we are by experience specially fitted to deal. I doubt if it would even be advisable to remit this question to our Parliamentary Committee, although that committee has done a great deal of useful work. I rather think that we should not miss this opportunity of having a committee of our own, to consider what line we as the Medico-Psychological Association ought to take. We know we must as medical men have difficulty in bringing about any reform. When a medical man rises to speak in the House of Commons he is the object of immediate suspicion. It is surmised that he has an axe to grind. Nevertheless we must try to induce a better informed state of mind amongst our legislators regarding this question. Dr. Carswell emphasises what we ought to make better known, namely, that the treatment of drunkards is not what it ought to be, and that the hopes raised by the last Act have not been fulfilled. In Glasgow there are only sixteen suitable cases, and Perthshire has declared that there was not a single person to be dealt with under the Act. The State reformatory remains uninhabited. It is from the point of view of the prevention of drunkenness that we should take up this matter in the first place, and then proceed to consider what can be done for the habitual inebriates. I am of the same opinion as the late Sir J. C. Bucknill that, generally speaking, drunkenness is not a disease, but a vice; that drunkards are not insane, but degraded. The few cases of true dipsomania are to be recognised by the periodicity of their drunkenness and by their insane inheritance. The ordinary drunkard is diseased only because he is vicious. Drunkenness is not a disease to be treated, but a vice to be reformed. That briefly is the standpoint I would take with regard to a great majority of these persons. First of all they must be put in a segregated community, and there they must be made to work, under a penalty of many stripes. Unless we have less of fantastic philanthropy in regard to this question we shall not arrive at practical conclusions.

Dr. CONOLLY NORMAN.—There is one point in the legislation of the future that

ought to be remembered, a point that is brought closely home to us in this country. A large number of our patients have become insane in consequence of drink, or at least drink is a large factor in the production of their illness. These people are among the class of cases that most readily so far recover as to be unsuitable for continued treatment in an asylum; therefore it becomes necessary for us to discharge them, and most unfortunately they run the same course, to be readmitted again and again. I have known such a patient admitted twenty-three times into the Richmond Asylum. Now, whether chronic drunkenness is a disease or a vice, we are perfectly well aware that a prolonged period of abstinence is the one efficient way of dealing with it. Yet under the present state of the law these cases are allowed to go free and to resume their old habits without any effective supervision. Surely the law should contain a provision that, if a man from drink becomes insane and thus dependent upon the rates, he should not be allowed to return immediately to his former habits, but should be compelled to submit to treatment by segregation for a considerable period. Of course, the only hope that legislation for the suppression of intemperance offers is that such treatment can be adopted easily and early.

Dr. EUSTACE.—These persons should be divided into two classes, the curable and the incurable. What is wanted is legislation for the curable or reclaimable class.

The PRESIDENT.—I fear we must acknowledge that this experimental legislation has been a failure to a great extent in England and in Ireland. The Irish Act started an excellent State inebriate asylum in Ennis for criminal drunkards. There are now about twenty patients there. The Act also gives power to county councils to start inebriate institutions, but they have not acted upon this. I think that the Act has failed because we are too much tied down by procedure, because patients cannot be sent into these institutions as easily and as often as they ought to be.

Dr. CARSWELL.—One or two points raised in the discussion require explanation. Dr. Urquhart states that we have had only sixteen persons in our home at Glasgow. That is true, but we have 180 on the public books, who might come within the scope of the Act. There is an explanation why we have only sixteen. We might have fifty, but in this experiment we chose between making it a home or a prison; and it became clear to us that if we at the outset received the cases slowly, and avoided the danger of creating a tainted atmosphere in the place, it might be possible afterwards to bring in one by one the worst cases, and the cases most needing discipline. This prediction has been amply fulfilled. We have received recently some of the most notorious women in Glasgow; they have gone down there and found their old companions, who told them that they would be treated with kindness. Instead of putting them into cells we have found them willing to work, and we have had no disciplinary difficulties. We shall soon have forty or fifty cases, but we cannot expect to have many under the Act as it exists at present. Dr. Urquhart asks why do the Glasgow magistrates allow persons convicted of drunkenness to forfeit their bail instead of committing them. As a rule these offenders who pay the fines can afford to pay, and they are workers. It is a very serious matter to take a bread-winner away from his family. The workman who gets drunk on Saturday night and pays his fine of seven shillings and sixpence on Monday morning is not a suitable man to take away and shut up for three years.

Dr. URQUHART.—I beg to propose—"That the questions raised by Dr. Carswell's paper be referred to the Council for consideration, with power to appoint a committee." I do not think that the valuable and instructive paper which Dr. Carswell read to-day should be allowed to pass into nothingness as other papers have done. If the Council see their way to appoint a committee we may look for good results.

Dr. CLOUSTON seconded the motion, which was supported by Dr. Miller, and agreed to unanimously.

Phthisis and Insanity: a Study based mainly on the Statistical Returns of Comparative Mortality in Ireland.[1] By THOMAS DRAPES, M.B., Medical Superintendent, Enniscorthy District Asylum.

IS there any special connection or affinity between insanity and phthisis? In other words, is there a greater proclivity in the insane *because of their insanity* to develop pulmonary consumption than in the sane? That such is the case is, I think, an opinion which at least up till recently has been rather widely if somewhat vaguely held, and believed to be well grounded. The ablest contribution on this subject has, I need hardly say, come from the pen of Dr. Crookshank (*Journal of Mental Science*, October, 1899), and the facts and arguments adduced by him should go far to dispel this idea. In this paper no attempt will be made to treat the question fully, which, after all that has been written by others, would be quite superfluous, but I shall endeavour, mainly by an appeal to some statistics of Irish asylums, to see if from them corroboration is to be found for Dr. Crookshank's conclusion on this particular point. My paper is therefore to be regarded as in a small way supplementary to his.

In studying a subject of this kind from the statistical standpoint, difficulties which unfortunately involve inaccuracies invariably arise, owing to the incompleteness of official returns which are too often defective in just those items of information which are necessary to enable us to arrive at reliable conclusions. As an instance of this I may mention that while in the Registrar General's *Annual Report of Births, Deaths, and Marriages in England*, tables are given showing the mortality from the various diseases *at successive age periods*, no such table is furnished by the Lunacy Commissioners, who merely give the average age at death in their Table 15, in my opinion an absolutely useless piece of information. This omission of course precludes any comparison being made between the relative mortality from any particular disease at different ages in the general population and in asylums, a point which has a very important bearing upon the very question under consideration

at present. In this respect we have an advantage as regards Irish statistics—have had, I should more correctly say, for while from 1893 up to last year such a table was furnished every year in the *Lunacy Blue Book*, in the last statistical returns (for 1900), unfortunately, the practice has been departed from, and following the English precedent—in this case a bad one,—only the average age at death is given. There is no reason why such tables should not be given, as they have been for some years past supplied in the statistics of each individual asylum, and only the usual compilation, as in the case of other tables, would be required. Another advantage appertaining to Irish statistics in this connection is that comparatively few deaths (4·4 per cent. of the total mortality in asylums) are due to general paralysis of the insane, whereas in England and Wales the number is four times as great (17·7 per cent.). Dr. Crookshank has pointed out that at least 25 per cent. of general paralytics die with advanced phthisis, such deaths, it is to be inferred, being assigned to the former disease, and not to phthisis, and the mortality in English asylums being consequently considerably understated. Even if the same were true in the case of general paralytics in Irish asylums it would not appreciably alter the mortality ratio of phthisis, at most not more than 1 per cent.

Amongst the real and genuine disabilities which beset the people of this "distressful" country (and perhaps in no sense is that adjective more appropriate than here), one of the most striking and deplorable is their quite exceptional liability to pulmonary consumption, as compared with the rest of the United Kingdom. The phthisical death rate does not vary much from year to year, although on the whole it is diminishing somewhat both in England and Ireland, but much more in the former country (England and Wales, 1891–95, 1463 per million; 1899, 1336. Ireland, average, 1889–98, 2118 per million; 1899, 2092). If we take the year 1899, the latest of which the statistics are published, we find that the ratio of deaths from phthisis in England was 1336 per million of population, as compared with 2092 per million in Ireland, which is thus 56·5 per cent. over the English rate. The general death rate, on the other hand, was almost the same in the two countries, 18·3 per 1000 in England, 17·6 in Ireland. If we take the average for the past ten years the

figures approximate still more closely, being 18·4 for England, and 18·5 for Ireland.

Of 10,000 deaths from all causes in England in the year 1899, 728 were due to phthisis, or 7·28 per cent.; whereas, in Ireland, 1189 per 10,000, or 11·89 per cent., died of this disease, being 63·3 per cent. higher in Ireland. It is not within the scope of this paper to discuss the causes of this largely preponderating mortality in Ireland further than to suggest as probably the most potent factors, poverty with its attendant under-feeding, dirt, and neglect of ventilation, all of which are painfully conspicuous in the houses of the humbler classes in this country.

Pursuing this inquiry on similar lines in the case of asylums, we find that in English asylums, taking the daily average as corresponding to "population" outside asylums, the general death rate per 1000 is 98·7, and in Irish asylums, 72·1. Comparing these with the corresponding ratios for the population at large (18·3 for England, and 17·6 for Ireland), it appears that *the mortality in England and Wales is five and a half times, and in Ireland somewhat over four times as great amongst the insane as amongst the general population.*

Then as regards the mortality from phthisis in asylums, the recorded deaths from this disease in English asylums give a proportion of 141·41 per 10,000, as compared with 13·36 amongst the population at large; in Irish asylums the ratio being 204·69 per 10,000, as compared with 20·92 amongst the sane. Or, roughly speaking the mortality from phthisis both in England and Ireland, when estimated in proportion to population, is about ten times as great in the insane as in the sane.

If, however, we were to conclude from this that the mortality from phthisis amongst the insane was actually ten times as great as amongst the sane, the inference would be an erroneous one. The term "population," when applied in the case of the sane, includes all living persons at all ages; whereas, in the case of the insane, it comprises only persons within certain age limits. In asylums there are practically no persons under fifteen years of age, except in asylums for idiots; but as these form only about two per cent. of the total number of insane in asylums in England, and only about one half per cent. in Ireland, they may be regarded as a negligible quantity. But persons under fifteen years of age form about one third of the total

population (32·5 per cent. in Ireland, census 1891), so that in order to make a just comparison we should estimate the relative mortality amongst sane and insane only in persons over fifteen years of age; this would reduce the proportion of relative mortality from phthisis from 10 to about 7½ to 1. (The calculations are made on the figures in the *English Blue Book* for 1900, pp. xxxii and xxxiii.)

A point upon which considerable stress has been laid in Dr. Crookshank's paper is that the official death rate from phthisis in asylums understates the actual death rate, owing to the fact that phthisis is found post mortem in a large number of cases in which death is assigned to other causes. Dr. Crookshank states that, according to Clouston, phthisis is found post mortem at least twice as often as would appear from the certificates. And he adds, 'There is good reason to suppose that the true phthisis death rate of asylums is something not much less than twice the 'official' rate. It is certainly half as high again." In a valuable paper on this subject by Dr. Eric France (*Journal of Mental Science*, January, 1900), the writer dwells upon the same fact, arguing that "the figures representing the incidence of tubercle in these institutions must be doubled before they can be regarded as actually representing the case." But the fact seems to be lost sight of that not improbably a similar condition of things obtains in the case of the sane population. Over and over again in post-mortems in general hospitals tubercle is found in persons who died apparently from some other disease. And if post-mortems could be performed in every case, and if we had complete statistical information regarding the population at large, it is possible that, as in the case of the insane, although not perhaps in quite so large a proportion, tubercular disease would be found to have existed in the sane, either undiscovered or overshadowed by some other more serious malady.(2)

If for a moment we look at the relative mortality from diseases other than phthisis in asylums as compared with the outside population we find, as might be expected, a very much higher rate in asylums. I have tabulated some of these (Table 1), and not to load the text with figures I will merely mention that in Irish asylums heart disease is nearly eight times as fatal, apoplexy and paralysis, and dysentery and diarrhœa each about four times, and epilepsy forty-one times as

fatal in asylums as amongst the population at large. Pneumonia is not differentiated from other inflammatory affections of the lung in the mortality returns of the *Irish Blue Book*, but in English asylums the mortality from this disease is about six times as great as outside these institutions, that is when the proportion of deaths from any of these diseases to population is made the basis of computation.

But here, although I feel some hesitation about differing from Dr. Crookshank, it appears to me that there are grounds for not accepting his contention that "if it be desired to compare the mortality from phthisis of asylum inmates with that of the general population the comparison must be made on the basis of the ratio in each case of the annual deaths from phthisis to the average populations involved." The statement seems to be too dogmatic. And certainly the method of selecting just one disease, and demonstrating its exceptional fatality, putting it in the pillory as it were, without any qualification, or without any reference to other diseases which are in a similar plight, would appear to be calculated to give only a partial and rather one-sided presentation of facts, and may even be actually misleading. The fact is that an asylum population being composed mainly of weakly folk, and the population at large consisting mainly of healthy persons, are hardly comparable. The general death rate in asylums is, as already stated, from four to five times as high as it is outside asylums, and this is caused not by the preponderance of one disease merely, but by a much higher relative mortality in quite a number of diseases. And therefore the percentage of deaths from any particular disease, as compared with the total mortality from all causes, would *a priori*, seem to be a more legitimate and juster method of estimating relative mortalities than by computations on the basis of the ratio of deaths to population. This was the method employed by Dr. Grimshaw, the late able Registrar General for Ireland, in different papers on the subject of phthisis mortality in Ireland, and his is no mean precedent to follow. It was from reading Dr. Grimshaw's papers on the subject that I was first led to doubt the validity of the opinion, which I think was pretty widely held, that there was some very close and essential connection between insanity and phthisis, that insanity was in fact to be regarded as to a

certain extent a predisposing cause of phthisis, a *par ignobile fratrum*, the Scylla and Charybdis one or other of which, if no other disaster intervened, was pretty sure to cause the ultimate shipwreck of the ill-fated heritor of mental instability. When one read of phthisis causing forty, fifty, or even sixty per cent. of the deaths in some asylums, there certainly did seem some just ground for this opinion. One sentence, however, from one of Dr. Grimshaw's papers was sufficient to set one thinking, and at least to suggest a more thorough investigation of available figures than had as yet been made. He states, as the result of his inquiry into the prevalence of tuberculosis in Ireland, that it is "as a single disease the most destructive of all maladies prevailing in Ireland, and exceeding in its destructiveness all the so-called infectious diseases put together." The question for us to determine is this:—can worse be said of phthisis as we see it in asylums? Do the insane as regards this disease stand on the same level as, or are they in more evil plight than, their sane brethren in this country?

In endeavouring to solve this problem it is most important to ascertain the relative mortality from phthisis amongst both sane and insane *at successive age periods*. We know that the disease is especially fatal amongst the sane within certain age limits, namely between the ages of fifteen and thirty-five, that is to say amongst young adults. Is the mortality amongst the insane at this particular age period equal to that in the case of the sane; is it greater or less? We know that amongst the sane after thirty-five, and more especially after forty-five, the mortality from phthisis becomes strikingly reduced, until at the higher ages it reaches a vanishing point. Do we find a proportional falling off in the case of the insane? Fortunately we have figures available for clearing up this point. I may say here that the calculations are based on the returns for one year only, 1899, the one of which we have the most recent statistics; but having found on trial that there is but little variation from year to year in the relative mortality from phthisis, the statistics of a single year give as reliable results as those of a series of years, the calculations for which would have involved an amount of time and labour which were not at my disposal to give. But as proof of what I state I may mention that according to the Registrar General's-Report

for the year 1899, the deaths from phthisis in that year were 209·2 per 100,000 of population, the average proportion for the preceding ten years being 211·8, that is a difference of 2½ per 100,000 persons, which is practically insignificant. Or, to take another instance, the ratio of phthisis mortality to total mortality in District Asylums in 1899 was 28·3, and for the period of ten years 1890 to 1899 28·2, or almost absolutely identical.

In Table 2 the percentage mortality of phthisis for each decade from 15 to 75 is tabulated in parallel columns, one of which gives the ratios for the whole of Ireland, the other for district asylums. From this we learn that the ratio of deaths from consumption to total deaths, between 15 and 25, is for the whole of Ireland 52·5 per cent., and for asylums 52·3. In the next decade, 25 to 35, the ratios are 47·9 and 47 respectively; and for the whole period 25 to 35 the proportion is 50·3 for all Ireland, and 49·3 for asylums. For the next decade, 35 to 45, the figures are 30 and 34·8 respectively, and for the whole period 15 to 45 the ratio is 44·2 for all Ireland, and 44·3 for asylums. These figures demonstrate that, as far as statistics can be relied on, the proportional mortality from phthisis between the ages of 15 and 45, that is during what may be termed *par excellence* the phthisical period of life, is practically identical amongst the sane and the insane in Ireland. After 45, however, we find a very marked difference. In persons from 45 to 55 years of age the ratio of phthisis mortality is only 14·4 for the whole of Ireland, and 28·3 in asylums; and from 55 to 65 the proportion is 5·1 and 10·7 respectively, that is to say that for the two decades from 45 to 65 the asylum rate is just double that of the sane population. Between 65 and 75 the ratios are 1·1 and 5·4 per cent., or five times as great in the case of asylums. It is not easy to keep figures clearly in memory without some assistance, and in the annexed chart the graphic method of showing the different ratios by different coloured lines will enable the eye to take them in at a glance; the white columns representing the ratios of phthisis mortality for the whole of Ireland, and the black ones indicating the same for district asylums.

This chart makes two things perfectly clear. First, that the relative mortality from phthisis amongst young adults, that is,

during what may be pre-eminently called the phthisical period, is almost identical inside and outside asylums. And secondly, that elderly patients in asylums are much more liable to die from this disease than the population at large. Unfortunately there are no returns giving the length of residence in asylums of those who die in them; but as 68 per cent. of admissions (both in 1899 and average of five years, 1895 to 1899) are under forty-five years of age, and as very rarely indeed (in my experience, but I should like to have the experience of others on this point) are patients admitted over that age who are the subjects of phthisis at the time of admission, I think it is a warrantable inference that most of those who die from the disease over forty-five years of age have been residing in an asylum for some considerable time. And therefore that *the high relative mortality from phthisis in asylum populations is due not to any predisposing influence of insanity, but to the conditions of asylum life.* That there is, in fact, no such thing as a "phthisis of insanity," but that there is a "phthisis of asylums." This conclusion, if correct, should have important results. If there were any essential connection between consumption and insanity *per se*, if there were reason to believe that one was in any way the outcome of the other, then we should feel much more helpless, and inclined to sit with folded hands and adopt a fatalistic attitude towards the question, believing that each man's pathological destiny was wrapped up in his heritage. Whereas, if consumption develops in insane persons as a consequence of the conditions and environment of asylum life, that fact at once fastens upon ourselves the responsibility, so far as in us lies, of so transforming those conditions as to render them in this respect innocuous. And, I may add, the very fact that *the mortality from phthisis varies so enormously in different asylums*, in 1899, according to the Inspectors' Report, from 14·4 to 60 per cent., is in itself strong corroborative evidence that it is the asylum and not the insanity which is the chief determining cause of any increased mortality from phthisis amongst the insane. This conclusion is quite in accordance with that arrived at by Dr. Crookshank, that "in the majority of cases in which phthisis leads to a fatal issue the disease is acquired in the asylum" (*Journal of Mental Science*, October, 1899, p. 673).

Everyone probably is agreed as to what the conditions in

asylums are which are provocative of phthisis, or at least favour its development. Overcrowding heads the list. As a rule structural additions are made to asylums only long after the necessity for increased accommodation has begun to make itself felt, and in the interval elapsing between the inception and completion of the necessary works the condition of overcrowding, with all its attendant evils, continues to become more and more acute. The dirty habits of the insane as a cause comes next in importance, and especially the difficulty, often impossibility, of preventing patients expectorating on walls and floors. These, as well as other possible influences on the high mortality in asylums, such as character of dietary, amount of out-door exercise, etc., have been dwelt on by Dr. Crookshank and others, and it is unnecessary in this paper to do more than give them passing mention. There are, however, two minor matters which are perhaps deserving of some attention. One is the effect of artificial systems of heating on phthisis development and mortality. A perfect system of artificial heating, as contrasted with what may be called the natural method by open fires, which will combine the two functions of warming and ventilating, has yet to be discovered. The inadequate ventilation associated with all methods of artificial heating, and also the difficulty of adjustment of temperature, are the two great objections to all such systems. And I think there can be hardly a doubt that a warm, often extra warm, atmosphere, combined with deficient ventilation, is about as favourable a medium for the growth and multiplication of tubercle bacilli as can well be imagined, besides tending to general deterioration of health in patients who are obliged to live in it. Another point worth considering is the amount of draperies in use in modern asylums. The tendency latterly has been towards more luxurious appointments, and carpets, upholstered seats, and curtains are now rather lavishly supplied in most asylums. Now every day more and more emphasis is being laid upon the fact that consumption is a contagious disease, propagated principally by means of the inhalation of dried expectoration in the form of dust. We know how strongly isolation is advocated, just as if the patient were suffering from smallpox or other contagious fever. How the thorough disinfection of clothes and bedding is enjoined, and Sir James Crichton Browne has even recommended as essential that wooden build-

ings used for the isolation and treatment of consumptie
be burned down at the end of ten years. Yet with
quantities of drapery, hangings, and upholstery are d
everywhere through asylums, which must be the rece
myriads of germs, which every breath of wind must di
through the atmosphere. Unless and until provisio
for the thorough isolation in separate buildings of th
cal insane—even of all phthisical suspects,—I cannot
that the fewer embellishments in the soft goods line i
the better for the health of the patients. And alth
floors and windows may not look so cosy and comf
when upholstered, the additional comfort procured
means may be too dearly bought. It would be pre
have our rooms "empty, swept, and *un*garnished" tha
by the demons of disease. These matters may s
paratively unimportant, but just as in aseptic surge
depends wholly and entirely upon attention to a
details, and leaving absolutely nothing to chance,
fight against tuberculosis he will succeed best w
nothing too small to be deserving of attention, and w
no stone unturned in order to eliminate every sour
tamination. *De minimis non curat lex, curat medicin*

TABLE I.

*Comparative Mortality from certain Diseases in th
Population of Ireland and in Asylums in the year*

Estimated population of Ireland, 1899 . . .	4,531
(Actual population (Census 1901)	4,456
Estimated population under 15 years of age . .	3,008
,, ,, 15 to 75 ,, . .	2,904
Daily average population in asylums . . .	15
Estimated ,, ,, under 15 .	15
,, ,, ,, 15 to 75 .	15

	General population.			Asylu	
	Deaths.	Ratio per 10,000 population	P'rcentage of total mortality.	Deaths.	Ratio 10,0 popula
All causes . . .	79,699	176		1132	7
Over 15 years of age .	58,130	193		1132	7
15 to 75 ,, .	43,232	148		1071	6
Phthisis	9,480	20·92	11·89	321	204·6

Ratio per
ge periods
year 189

45 45—55

34·8

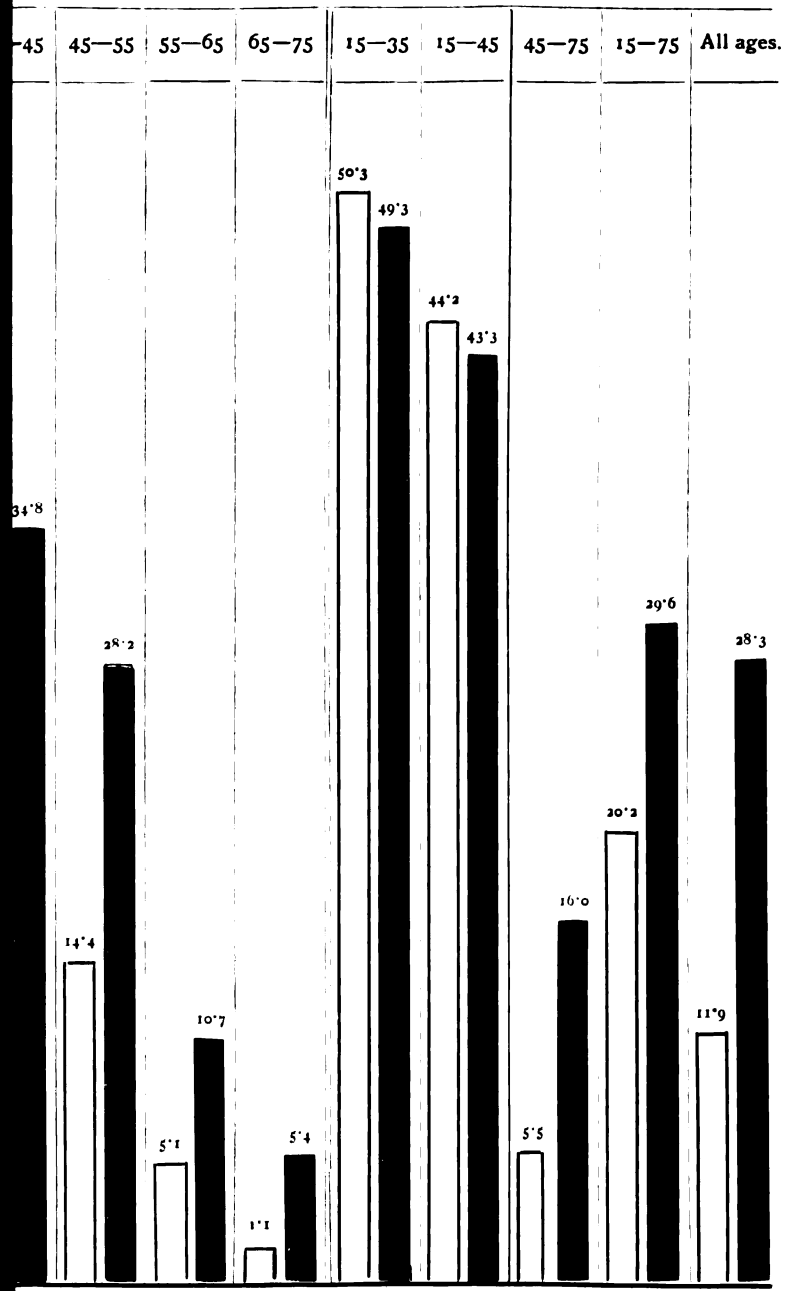
28

14·4

ple line

TABLE II.

Ratio per cent. of Phthisical Mortality to Total Mortality ge periods, in the General Population and in Asylums in year 1899.



ble line, general population. Black columns, asylums.

TABLE I—*continued.*

	General population.			Asylums.		
	Deaths.	Ratio per 10,000 population	P'rcentage of total mortality.	Deaths.	Ratio per 10,000 population	P'rcentage of total mortality.
Over 15 . . .	8,752	29·09	15·0	321	204·69	28·35
15 to 75 . . .	8,733	30·00	20·2	318	205·9	29·6
Heart disease . .	3,312	7·4	4·15	89	56·75	7·8
Epilepsy . . .	306	0·67	0·38	44	28·05	3·8
Apoplexy and paralysis .	2,991	6·6	3·7	42	26·78	3·7
Dysentery and diarrhœa	2,303	5·08	2·9	31	19·76	2·73
Pneumonia (England) .	39,845	12·55	6·8	582	70·4	7·15
Cancer	2,654	5·9	3·3	18	—	1·5

TABLE II.

Comparative Phthisical Mortality in the General Population and in Asylums in the year 1899.

	England and Wales.		Ireland.	
	General population.	Asylums.	General population.	Asylums.
General death-rate per 1000 of population in the year 1899 . . .	18·3	98·7	17·6	72·1
Average of 10 years	18·4		18·1	
Deaths from phthisis per 10,000 in 1899	13·26	141·41	20·92	204·69
Do. average of 10 years . . .	14·54		21·18	
Percentage of deaths from phthisis to deaths from all causes . . .	7·28	14·37	11·89	28·35
Do. at different age periods . . .	omitted o	wing to in-		
15 to 25	sufficient	statistical	52·3	52·5
25 „ 35	data.		47·0	47·9
35 „ 45			30·4	34·8
45 „ 55			14·4	28·2
55 „ 65			5·1	10·7
65 „ 75			1·1	5·4
15 „ 35			50·3	49·3
15 „ 45			44·2	43·3
45 „ 75			5·5	16·0
15 „ 75			20·2	29·6
All ages			11·89	28·35

(1) Read at the Annual Meeting of the Medico-Psychological Association at Cork, July, 1901.—(2) Prof. Brouardel in his address on the prevention of consumption at the British Congress on Tuberculosis held in London in July, states: "Laennec, Nat. Guillot, Letulle, proved that in more than half the necropsies

made, old healed tuberculous lesions were to be found. . . . As for my personal experience at the Morgue in Paris, where I frequently make necropsies on accidental deaths, I can state that in half the cases, if the person on whom the necropsy is made has lived in Paris for about ten years, I find healed tuberculous lesions. . . . These lesions in the majority of cases are not phthisis in an early stage manifested by small disseminated foci, they are cicatrices of large foci, sometimes of wide cavities completely cicatrised. Phthisis, therefore, is curable even in its most advanced stages." (*Brit. Med. Journ.*, 27th July, 1901, p. 196.) These statements show that in a large proportion of the sane population evidence of phthisis "even in its most advanced stages," but arrested, is found. Compare with this Sir J. Crichton Browne's remarks in the discussion on Dr. Eric France's paper (*Journ. Ment. Sci.*, Jan., 1900, p. 19):—"In 100 general paralytic patients dying in the West Riding Asylum, consecutive cases, in all of which general paralysis was the certified cause of death, tubercular disease of the lungs was found in 25 cases. In six of these only the remnants of past phthisical disease were noted, cretaceous nodules, cicatrices, etc.; but there was no room for doubt that in 19 cases the disease had arisen during the course of the general paralysis. . . . In none of these had the disorganisation of the lungs spread to the extent which we are accustomed to find in patients who have died of phthisis." The bearing of these extracts is not without significance, and, if anything, lends support to the view that, as far as regards the discovery of phthisical lesions *post mortem* in sane and insane, they are very much on the same level.

The Evolution of the Colour Sense. By F. W. EDRIDGE-GREEN, M.D., F.R.C.S.

ALL the facts which can be gathered from the study of museums or literature point to the conclusion that the sense of light was developed first, then the sense of colour. The tendency has been to regard colour-blindness as "chromic myopia;" but this is not correct unless there is a defective perception of light as well, as shown by the cases which I have recorded. A man may be able to see light of all colours at twice the normal distance, and yet be colour-blind. I specially wish to emphasise the fact that there is no definite relation between light and colour. When light falls upon the eye it sets up a nerve impulse, which is conveyed to the brain. In the impulse itself we have the physiological basis of light, and in the quality of the impulse the physiological basis of colour. My contention is that these two factors are perceived by two entirely different sets of cerebral cells, those devoted to the perception of colour being developed at a later period than those conveying to the mind the sensation of light. All the evidence which can be obtained shows that all objects were

first seen as in a photograph, that is, in different degrees of black and white. In the evolution of the colour sense those waves which differ most physically, namely, red and violet, were first recognised as different, the remainder of the spectrum appearing grey. Homer's colour vision was of this class, which represents the degree just preceding total colour-blindness. I have recorded a case of this kind of a man who was colour-blind with one eye, and who was therefore able to tell me exactly how objects appeared with this eye. He said that the spectrum appeared nearly all grey, but with a tinge of red at one end and a tinge of violet at the other; he could see very much better with the colour-blind eye than with the other.

As the colour sense developed it was not necessary that the rays of light should be so far apart before a difference was seen, and so the neutral band gradually diminished in size until the two colours met in the centre of the spectrum. Then a third colour, green, was developed at the central point, there being three points of difference seen instead of two. Then a fourth colour, yellow, was developed, its position appearing at the next point of difference, that is midway between the red and the green. The next colour to be developed was blue, and then orange. In some individuals evolution has proceeded further, and a seventh colour is seen in the spectrum.

These facts show that psycho-physical colour-blindness is an example of a previous state in the development of the colour-perceiving centre.

Read at the Annual Meeting of the Medico-Psychological Association, Cork, 1901.

The Superannuation Question: its Effect on Asylum Officials, with Suggestions for Further Legislation on the Matter.

By EDWARD D. O'NEILL, M.R.C.P.I., Medical Superintendent, Limerick District Lunatic Asylum.

IN approaching the subject-matter of this paper I am fully conscious of its importance and the difficulties to be contended with in dealing with such a vexed question, the far-reaching effect of which must of a necessity materially influence the

financial position on retirement of thousands of asylum officials of all grades. In adopting the question of superannuation I do not think I could have selected a better or more useful one for the purpose of calling attention to the provisions of the Acts of Parliament which determine the retiring allowances in this country, and the similiar Acts operating in England and Scotland, and, at the same time, eliciting an opinion as to how our common interests could be best served in getting rid of the permissive clauses common to all the Acts.

The importance of this matter, and, I am sorry to say, the apathy shown in connection with it generally, must be my excuse for bringing forward such a dry, and perhaps unattractive subject. What I propose to do briefly in this paper is to take off the christening clothes, expose it to public opinion as an international grievance, affecting nearly ten thousand asylum officials, and then re-introduce it to parliamentary notice as an old friend with a new face, waiting to be re-dressed.

No doubt many of the old members of our Association and other officials of all grades are nearing the evening of their official lives, and are contemplating retirement from active duty after many years of arduous work and responsibility, in the hope of receiving a commensurate retiring allowance. Do the Acts already dealing with the question enable us to look forward, as other public officials are entitled to do, to getting any definite or adequate retiring allowance? or can any one definitely state that he is assured of being granted two thirds retiring allowance by his Committee? A reply in the negative must be given to both questions.

One day this severance from duty will apply to us all, and is this vague uncertainty to stare us in the face? Indubitably no, if we make a supreme effort; and I think the time is now opportune to make a stand, and vigorously press this superannuation question on the notice of the Government until we place it on a sound foundation with a legislative hall-mark on it, denoting its sterling value, without any alloy of uncertainty or disappointment.

Having said so much on the general aspect of the case, I desire now to draw special attention to a few of the chief reasons that should operate in obtaining for asylum officials redress from the hardships inflicted on them by the Acts which deal with the subject—constant contact with the insane, long

hours of duty, liability to attacks by patients, slow promotion, small salaries. In addition to the above, which apply to all asylum officials, the Medical Officers' duties are countless and endless, they are responsible for every one and everything connected with an asylum—the mental and physical condition, the moral needs, occupations, and amusements of the patients, the supervision of the staff, the fiscal and general administration. In fact, the strain on Medical Officers is so severe that a Select Committee of the House of Commons over thirty years ago, having regard to the incessant intercourse of Medical Officers with the insane, recommended a reduction from twenty to fifteen years as the minimum period of service, after which the maximum rate of pension *might* be granted, and effect was subsequently given by statute to that recommendation.

The position of an Asylum Superintendent is a responsible and trying one, and continually calls for the greatest diplomacy in his relations with the patients, the officers and servants of the institution, his Committee, and the public. And in the efficient discharge of that duty he may have to take up a position the difficulties of which are not always understood or appreciated.

Thus the friendly relations that have existed for years between a Medical Officer and his Committee may be suddenly interrupted, unpleasantness sooner or later is likely to arise, and in many cases the permissive legislation regulating our pensions will come to be interpreted in a spirit far from being satisfactory to the person chiefly concerned.

Judging by the action of most of the Asylums Committees in connection with section 115 (18) of the Local Government Act, 1898, this is by no means an unreasonable anticipation.(1) It must not be assumed that the superannuation question has been allowed to remain in absolute abeyance, many efforts having been made for the last fifteen years to protect our interests, notably on the introduction of the English Local Government Bill, 1888; the Lunacy Bill, 1890; and the Local Government (Ireland) Bill, 1898. When the English Local Government Bill was introduced asylum officials were greatly alarmed, lest the change would result in their being deprived of their pensions. These fears were based on the grounds that great opposition was given to pensions in several counties, the

opposition coming from the guardians, from whose class it was anticipated the members of the proposed County Councils would for the most part be drawn.

The result of this feeling was that a large number of officials came to the conclusion that their interests would be better protected by an assured scale, for which they would be willing to sacrifice some advantages of the existing pension clauses.

Evidently these views prevailed with the Pension Committee in issuing their recommendations for the adoption of a modified Civil Service Pension scheme. The discussion at a subsequent general meeting of the Association showed, however, that a considerable difference of opinion prevailed. The Irish members of the Association adopted and supported a course directly opposite to the English, as the latter were anxious to receive a lower rate of pension with *certainty*, whereas the former were anxious for a two thirds rate, and swallowed the bait with avidity. Action was also taken in connection with the Pauper Lunatic Asylums (Ireland) Superannuation Act, 1890, but to no effect. On the introduction of the Local Government (Ireland) Act, 1898, the following amendment was suggested :—"That under section 280 of the Lunacy Act, 1890, it shall be the duty of a Committee to grant Superannuation Allowance to their Staff, and the allowance to be granted under the section be not less than would be granted if the applicant were an official to whom Poor Law Officers' Superannuation Act, 1896, applies."

It is difficult to understand why differential treatment should be meted out to officials whose circumstances and claims are identical. Two officers with the same excellent record, whose length of service and emoluments are the same, in asylums of equal importance, ought in justice to receive the same pension, but in the Asylum Service there is no security that they will. A civil servant from the north of Scotland or from the south of Ireland would, under like conditions, have his pension calculated on the same uniform principle, but in our Service the only point that is definitely settled is, that under no circumstances shall we get more than two thirds.

The present legislation will work out with great hardship in some cases. Without entering into any political discussion, or any comparison between the present Committees and the

former Boards, there is one element which under the present system works out unfavourably to Medical Officers. Formerly there was a practical certainty that a majority of each Board would be men who had for many years been members of it, who had a knowledge of the exceptional nature of Asylum administration, and who knew the character and capacity of the Superintendent, and the value of his work. From a Board so constituted, exercising a permissive power, a retiring officer might reckon on more or less fair treatment. Under the new conditions, however, the triennial election of County Councillors and the selection by them of representatives on our Committees, might have the effect of putting off men who were advanced in the course of acquiring that knowledge of asylum affairs which would enable them to judge fairly in questions relating to superannuation. If the retirement took place soon after a triennial election, the majority settling the pension might consist altogether of persons utterly unacquainted with asylum affairs. Several Asylum Committees passed strong resolutions in favour of the County Asylums' Special Pension scheme. This scheme contained a fixed scale of pensions, within definite periods of service, and a certain age for optional and compulsory retirement.

The scheme was prepared by the Northampton Committee of Visitors, and signed by Lord Spencer, who, during his Irish Viceroyalty, took a great interest in our Service, and had an intimate knowledge of the claims of the department.

The English Commission on Lunacy, in their report for the year 1890, wrote as follows :

"The question of granting superannuation allowances to asylum officials has recently, we believe, engaged the attention of Visiting Committees and County Councils, and our opinion upon it has more than once been sought. We have expressed ourselves in a manner favourable to the granting of such allowances, and we think we should in this report give a wider publicity to that opinion. The Lunacy Asylum Act, 1853, and the Lunacy Amendment Act, 1862, enabled Committees of Visitors to grant superannuation to officials disabled by sickness, age, or infirmity, or who had attained the age of fifty and had served fifteen years. The grant required to be confirmed by the Justices in Quarter or General Sessions. The power was permissive, and its exercise wholly within the

discretion of the Committee, but presumably it was intended by the Legislature to be used as the rule, not exceptionally."

There are specially strong reasons why the asylum scale of pensions should be definitely settled by the Government. By the Capitation Grant, half, roughly speaking, of the asylum expenditure comes from the Government. The remaining portion comes out of county funds, to which the Government further contributes largely through the Agricultural Grant, Estate Duty Grant, surplus from sale of dogs' licences and other grants. The Government, therefore, bear the greater portion of asylum expenditure; they have a special right, and it is their special duty to define and make compulsory a scale of pensions giving us the same fixity of prospect as is enjoyed by civil servants, whose salaries are only to a little greater extent defrayed out of public funds.

A pension scheme of a contributory nature of granting assured pensions to the officials of the Mullingar Asylum has lately been drawn up and adopted by the Committee of that asylum. The object of this scheme is to reduce the rates, and to make the future condition of the officials better than what it is under existing circumstances.

A scale of deductions from the officials' salaries on the lines of the Poor Law Officers' Superannuation Act, 1896, is the basis of the scheme. The objection to it is that it is permissive, and only binding on the Committee who adopt it.

Having briefly touched on the effects, the claim and action taken in connection with the superannuation question, I now propose to deal with the steps that should be taken to remedy the defect in the Acts of Parliament dealing with the subject: the Acts of Parliament dealing with the matter in England, the Lunacy Act, 1890 (53 Vict., cap. 5); in Ireland the Pauper Lunatic Asylums (Ireland) Act, 1890 (53 and 54 Vict., cap. 31), as amended by the Local Government (Ireland) Act, 1898; and in Scotland the Lunacy Acts, 1860 (Scotland) (29 and 30 Vict., cap. 51).

These Acts are almost identical, with the exception that in Scotland only the officials of chartered asylums are eligible for pensions, but in each case it is permissive.

Fifteen years' service and fifty years of age or incapacitated through illness is the groundwork of the three Acts. The framers of the Acts apparently intended that the granting of a

pension, though nominally permissive, should be a practically recognised right, and to that simple little word "may" all our trouble is due. I am now come to the strongest point in our favour: we are the officials of the three countries, standing on the same footing, having the same duties and responsibilities, and labouring under the same disadvantages as regards superannuation.

The other services, including the Army, Navy, and Civil Service, have a fixed scale of pension, and every one knows exactly from the first day he enters the service what he will be entitled to on retirement.

Are we expecting too much when we ask for the same security?

On an important matter of this kind it is very difficult to get a consensus of opinion as to whether a modified scale of pension assured would not be better than the present arrangement. This opinion cannot be obtained through meetings, no matter how representative or how often held.

The only solution is to send out voting papers and let the matter be definitely settled; then we shall know exactly how we stand, and what action is to be taken.

It is evident to the man in the street that, if we can bring sufficient pressure to bear in getting rid of the permissive clauses of the existing Acts, we shall have gained what we are justly entitled to.

In this go-ahead age all developments are hatched and brought out on scientific principles, and the flotation of many undertakings is worked on the basis of a trust, or the fusion of many interests into a common one. Why, then, should we not have the asylum pension "combine," and develop our grievance into an international one, by embodying our legitimate claims into a memorial signed by every asylum official in the United Kingdom, and by united action press on the Government the recognition of the injustice of the existing Acts of Parliament? Thus every asylum official in his own way can get the machinery of legislation in motion by adding fuel to the fire, by securing the support and interest of the Member of Parliament for his district, by having the word "may" changed into "shall."

In conclusion I must, in justice to the old Board of Governors of my own asylum and my present Committee,

bear testimony to the very impartial and considerate manner in which they have on all occasions dealt with applications for pensions, with a result that the pension list is one of the highest in Ireland.

(1) Since this paper was written a very favourable decision has been given in the Court of Appeal by Chief Baron Pallas in the case of Taylor (Medical Superintendent, Monaghan Asylum) against the Local Government Board.

Discussion

At the Annual Meeting of the Medico-Psychological Association, Cork, 1901.

Dr. Newington.—Dr. O'Neill has shown that this question is going through the same stages as in England. I am sure that the Parliamentary Committee of the Association, which has had a good deal to do with the English question, will, if it can, offer its very best aid to the Irish Committee.

Dr. Finegan.—As Dr. O'Neill has referred to the Mullingar scheme, it is as well that you should know that even that has not been adopted yet. It is still under the consideration of the actuary. It is not perfect, but it is the only scheme that we could have under the circumstances. It is established on the ground that it is better than no scheme at all. The question of pensioning an official in the second stage of phthisis came up, and the Committee said, "We cannot pension this woman who has been well paid. Let her go about her business. Besides, her husband is in the asylum. Let him support her." Then one committee-man said, "If you are going to give a pension let the officials contribute towards it." I therefore drew up the Mullingar scheme. Trying to be as favourable as possible to officials, I took the Poor Law Officers' Superannuation Act for the contribution, and the Pauper Lunatic Act for the scale of pension that should be paid. If the Mullingar scheme were not framed as it is, it would mean that we would have no scheme at all; and if pensions are not given in Mullingar soon they would not be given in any asylum in Ireland, because Ireland wants some asylum to set a precedent.

Dr. Havelock.—I think that the only way to get pensions is to bring personal pressure on individual members of Parliament. Some of them are most conscientious in the discharge of their duties, and if well-informed they would probably take action. I was approached some time ago by a Scottish member of Parliament who happens to be a member of the Board of Montrose asylum. He appealed to me as a Superintendent of a Scottish asylum, as one who would give him an impartial opinion on the English pension scheme. I gave him an impartial opinion, and I am sure that he returned to the House of Commons with a full desire to aid in doing it justice. In this matter I do not think that you can carry all three countries together, but if you can succeed in getting a satisfactory pension scheme in England, there is no doubt others would follow in Scotland and Ireland.

The President.—Dr. Finegan has said that his scheme has not yet been adopted. I hope he will think better of it, and not carry it further. I think it is an exceedingly bad scheme. He will, I am sure, excuse me for saying so, as I think it better to speak out. The Act at present is not compulsory, but in nine cases out of ten in Ireland it has been very liberally interpreted. Because Dr. Finegan has not succeeded, and because his Board has not acted liberally, in order to get a pension for an individual, he put forwards what he admits is not the best scheme. It goes behind our Act of Parliament and accepts a lower rate than that which we say we are entitled to, and which is lower than the amount the Act of Parliament says may be given. There will be a new Committee of Management next May, and that Committee may say, "You accepted a less pension than the Act provided from our predecessors, and you must accept a still smaller pension from us." In that way pensions may disappear altogether. If the Committees of Management had a life of ten years, the argument in favour of the scheme would be stronger; but with the short-lived Committee

changing every three years I think the scheme would fall to the ground, and I hope that it will do so.

Dr. O'NEILL, replying on the discussion, said he considered that separate action would be a mistake, as the question was of vital importance to all Asylum Officials, and he believed in combined action. He hoped the Parliamentary Committee would take up the matter and bring it prominently under the notice of Government. It was rather late in the day for Superintendents to say, "We know our Committee, and we know we shall get a fair pension, and agitation may imperil our positions."

Experience had taught that nothing was gained without agitation. Dr. Finegan seemed to infer that he (Dr. O'Neill) had taken it for granted that the Mullingar Scheme had been adopted. He trusted that it would not be carried, as what was wanted was an assured pension scheme, and not a Mutual Relief Fund.

Recent Lunacy Legislation: Retrogression or Progress?

By WILLIAM GRAHAM, M.D., Medical Superintendent, Belfast District Asylum.

LITERARY apologies, it has been said, are either superfluous or impertinent—superfluous if the matter apologised for is of itself worthy of public regard, impertinent if it can lay claim to no such merit. Therefore it does not seem necessary on the present occasion for me to introduce the subject of asylum management with any deprecatory language. It will suffice simply to recall the fact that in this city the question has come up in an acute and even controversial form, and is deeply interesting the community in whose midst we are assembled. We may well hope that the impulse given by this discussion will leave a permanent impression throughout the length and breadth of Ireland. One thing, at any rate, we may expect—the abolition of the standing scandal that has so long permitted the insane poor to be huddled together in workhouses without the benefit of scarcely one of those ameliorative agencies elaborated by modern science wedded to a genuinely philanthropic spirit. It is an oft-told tale, and need not be repeated here. The Poor Law guardian who takes for his axiom "keep down the rates" must shut his eyes to the uncleanliness, the untidiness, the lack of discipline, the absence of proper scientific supervision, the utter discomfort which reigns everywhere—characteristics that have made the name of workhouse a by-word and a reproach even among the most degraded. If at any time he is visited with a qualm of conscience, he reflects,

perhaps, that the unfortunates in his charge owe their sad destiny to God, or Fate, or Nature, and that anything done for them robs the ratepayer of that which, not enriching them, leaves him poor indeed. These institutions are cheap, but if there is any warning writ more largely than another for the behoof of all future lunacy reform in Ireland, it is surely that supplied by our workhouses against a parsimonious and pettifogging spirit in our provisions for the insane.

Recent legislation has attempted to grapple with the problem. It is as yet only an attempt, but it is, in the main, in the right direction. Everything depends on the correct interpretation and proper administration of the law. But it is just here that vehement controversy has broken out, and divergent opinions and principles are brought into sharp antagonism. The county councils are deeply interested in the question that has been raised, and naturally enough look to the resident medical superintendents for light shed upon it by their own experience and study. It would be manifestly wrong for the men who have the best means of knowing the conditions of the problem to keep silent through cowardice or any other unworthy motive. Only through frank and fair discussion can progress in any department of human activity be made.

Let us first of all quote the relevant portions of the Local Government Act, 1898. Section 76 reads—in part: "The Council for a County may, either by the exercise of their powers under this Act, or by taking over for the purpose any workhouse or other suitable building in possession of the Guardians, provide an auxiliary Lunatic Asylum for the reception of chronic lunatics, who, not being dangerous to themselves or others, are certified by the Resident Medical Superintendent of an Asylum of such Council not to require special care and treatment in a fully equipped Lunatic Asylum; and any such auxiliary Lunatic Asylum shall either be a separate asylum within the meaning of the Lunatic Asylums Acts, or if the Lord Lieutenant so directs, a department of such an asylum."

Section 84 has the following words—"The County Council, acting through their Committee, shall appoint for each lunatic asylum a Resident Medical Superintendent, and at least one Assistant Medical Officer." The gist of the controversy that

has waged round these simple sentences lies in the answer to the question, What is meant by the term "auxiliary asylum"? Does it imply an independent institution having no connection with a "fully equipped" asylum, and without, therefore, the advantages of scientific oversight and experienced medical skill that can be found only there? Or does it mean a structure better adapted than the present unions for the treatment of the insane, yet not so expensively equipped from an architectural and sanitary point of view as the existing asylums, but which, at the same time, shall be in organic connection with these latter institutions, and enjoy all their benefits of medical knowledge and scientific experience? It has been argued that the former contention must be correct, otherwise the distinction drawn in the Acts between "a fully equipped" and an "auxiliary" asylum disappears. The fact is, however, our legislators were not thinking of the medical staff particularly; it is clear that they were seeking to relieve the ratepayers by the suggestion of buildings structurally less expensive and simpler in their detailed management than the present fully organised and highly elaborated asylums. It never occurred to them to propose that one section of the insane should be withdrawn from whatever the highest medical skill and attention can afford. Further, the terms "chronic" and "incurable" are used as though they were synonymous in the popular apprehension. The Act speaks of "chronic lunatics," it carefully avoids the term "incurable." Why? Simply because chronic patients are not necessarily incurable. A cure has often been effected in patients after many years' derangement through the quiet of a rural life and a pleasant and cheerful environment. It must never be forgotten that a human being, even when insane, is still a human being; he is not a mere physical organism, capable only of the animal functions of eating, drinking, and sleeping. Even amid the wreckage of the brain there lie the germs of a higher life. Who shall say that these germs are unworthy of all the care and nurture we can lavish upon them? A distinguished and highly honoured member of one of the committees of management advocates that interpretation of the law, which is here opposed, with such ability and skill that I choose his statements for criticism, knowing that if their fallacious character can be shown no further argument is possible. Detailed

criticism is also necessary here, because the opinions so carefully marshalled represent the best that can be said for ideas too prevalent among the laity.

This writer bases his main contention on the theory that there is "the broadest line of demarcation between an institution for curable patients and an institution for incurable patients." It is not, he says, in accordance with true ideas of charity that "incurable idiots and imbeciles should be provided with the most expensive appliances of modern architectural and sanitary science." What sort of provision then is deemed necessary for these incurables? The reply is, an institution presided over by a layman, and visited at set times by a physician resident in the neighbourhood. The reason alleged for this revolutionary proposal is that a layman can be secured for a smaller salary than a qualified medical assistant. A scientific supervision is superfluous and useless, for he would be engaged in "the vain task of infusing intellect into those whom God Almighty created idiots." Further, the attendants could be got at a cheaper rate than those in the ordinary asylums, "for they should be strong vigorous women, neither squeamish nor over-refined." Yet in these institutions the curious phenomenon will be observed of patients who are unable to benefit from modern science because "God Almighty has created them idiots" having the privilege of chaplains' ministrations, and presumably having intellect enough to understand and inwardly digest the same.

Such is, in brief outline, the scheme proposed for acceptance at the hands of the Irish county councils. Is it tenable? One thing is obvious. It throws overboard, with marvellous audacity, the fruits of the last thirty years' experience of asylum management. This, of itself, is not sufficient to condemn it, for it may be that the history of philanthropic endeavours in every country of Europe has been a huge blunder, and that it has been reserved for us in this remote portion of our earth to open up the true path to lunacy reform. Yet on the very threshold a sombre reflection gives us pause. "Knowledge," says Carlyle, "must go before every reform." The Irish way of interpreting this dictum is to heave overboard science, learning, intellectual discipline, as so much idealistic rubbish, and with full steam up, forge ahead! Such a doctrine at the outset is painfully discouraging. But let it

pass; and let us ask, What is the motive lying behind the doctrine? It is summed up in the Scotchman's advice to his son: "Make money, my son,—by fair means if you can, but in whatever way, make money." Does anyone suppose that if medically supervised institutions cost no more than lay-conducted ones, there would be any thought of constructing these latter? No doubt other arguments of a less cold-blooded and calculating quality are advanced, but upon examination it will be found that they are afterthoughts brought in to give a Christian look to ideas and ways not so Christian in reality. The causal source of the scheme lies in economy. Now let it be said at once that within limitations economy has its rights. What are those limitations? It must not hurt the philanthropic instincts of the community, nor must it necessitate a retrograde movement in providing the munitions of the highest scientific knowledge for the care of the insane.

It is contended, indeed, that with the drafting of the 4000 insane poor from the workhouses into the asylums, each of them being a charge on the Local Taxation Account at the rate of 4/– per week, this account would soon become insolvent. Until the financial experts have spoken on the matter it is useless for non-experts to debate the point. Let us assume that the worst will happen, that this source of payment will be wiped out—what then? Certainly it is clear that the mentally diseased cannot be wiped out. "The poor," says the great Teacher, "ye have always with you." The same thing is true of the pauper lunatic. The question then has to be asked, shall we make the requirements of our afflicted brothers and sisters fit our finances, or shall we administer our finances so that they shall meet their requirements? If the present mode of dealing with the expenses of lunatic institutions be found inadequate, then it is the bounden duty of the Government to create a more satisfactory one. Surely the very poverty of Ireland, which is urged as a reason for a less generous treatment of the insane than is practised in Scotland or England, is rather the strongest possible plea that the Government should come to the assistance of the people in their self-sacrificing endeavours to satisfy their social obligations.

Now let us turn to the proposed new departure. Its basal idea is that there is a clearly marked line of demarcation

between curable and incurable patients. But what saith calm and judicial science? This; that the supposed line is really a vanishing point, that the supposed distinction between curability and incurability is really a fiction. Yet it is upon this fictitious principle that, as we are gravely informed, so-called "incurables" should be gathered into special establishments, and rendered independent of the healing and alleviating agencies of the curative institutions. Again, the class of patients under consideration are described as "harmless." But who is to certify that any given insane person is "harmless"? It is well known that however mild and gentle a patient may appear to be, he may, at an unexpected moment, be subject to an outburst of suicidal or homicidal violence. Hence no expert in insanity would certify a patient as harmless or incurable, for his diagnosis is absolutely without materials to work upon. As a rough kind of popular classification the division into "curables" and "incurables" has a certain relative validity. It expresses a truth which is, however, only half a truth. We may be pretty certain that in every asylum there is an incurable class. Yet when we come to concrete cases it would be most dangerous to assert of this or that given patient that he belongs to that class. Take an illustration from the sphere of morals. That there are men morally hopeless alive in the world to-day no one will doubt. The light of their higher nature has been quenched in the mud and mire of base living, but who does not see that it would be ethically dangerous to assert of this or that individual that he is past moral recovery? Equally dangerous is it to assert of any one that he is beyond restoration to mental soundness. But let us suppose that the impossible has been done, that those mountains which impede the path of the new reform have been charmed away, and that we have got our "incurables" safely garnered in a separate and independent institution. No doubt for our new building we shall need an inscription; and where shall we find a better than the one Dante saw inscribed over the portals of perdition? "All hope abandon, ye who enter here." For the poet of the Middle Ages the last horror of hell was the absence of hope; and no one questions his profound spiritual insight. It is almost impossible to exaggerate the dire effect which such an institution would have on all who entered within its baneful shadow. Wherever you kill hope you cut the

nerve of philanthropic endeavour. The Nemesis that has overtaken homes for incurables has been degeneration. It must be so from the nature of the case. Human nature needs an explicit or an implicit optimism to keep it at a high level of benevolent effort. Let patients, friends, physicians, attendants live in an atmosphere of hopelessness, and they are bound to relax their care and discipline, and from neglect there is but a step to abuse of the inmates, and then—chaos. On the other hand, fill the minds of attended and attendant alike with hope, pierce all within the walls of the asylum with the conviction that in the darkest night of madness a blessed ray of light may spring up, and healing be found even in the shadow of the Almighty, and you have let loose palliative energies to the restorative effects of which it would be unwise to set any limit.

Having got our building and our "incurables," we must now look about us for a responsible head. What kind of a person is he to be? In a communication addressed to the Lord Lieutenant by one of the asylum committees of management, it is proposed that "a respectable and fully-qualified layman" should be appointed, and in the event of such appointment, that a local physician be elected to visit the institution daily and prescribe for such of the patients as may be sick in body.(2)

The grounds on which this extraordinary proposal is based are twofold: (1) It saves money, because "a competent layman for such an office can be secured for a much smaller salary than even a junior medical gentleman;" (2) A resident medical man is superfluous, because by hypothesis "the mental condition of the patients is incurable, while their bodily health is not bad."

And first as to cheapness. Let it be noted that according to the schemes here criticised, the layman appointed is to be a "fully-qualified" one. What, then, ought to be some of his qualifications? Clearly he would have to be a man of special talent, of tireless energy, of distinct resourcefulness in a sudden emergency, and with only one ambition, that of making his unhappy charges as comfortable as possible until death should set them free. Our economic reformers assure us that such men can be got for a salary of £100 a year. No doubt in an ideal world the only wages demanded by virtue would be, as Tennyson says, that of "living on and not to die." But alas!

we inhabit a world vexed by sordid necessities, and where the dreary principle of supply and demand still operates; and it is open to grave doubt whether the "fully qualified" layman, even were he discoverable, might not think his services worthy of a more generous acknowledgment than his would-be employers would care to own. The truth is, the advocates of the new departure are thinking not at all of a "fully-qualified" layman, but of a kind of glorified workhouse master, whose glory, however, is created by an enthusiastic imagination, and whose bare actuality does not connote a single quality which asylum service claims and deserves. But even supposing we had our altruistic layman, with all his shining virtues thick upon him (paid for at the rate of £100 per annum), we still need, for the sake of bare bodily health, a visiting physician, whose remuneration is fixed at £120 a year. Where is the economy here? Combine these two salaries and an experienced medical assistant can be obtained who would seem to have a qualification denied alike to the "fully-qualified" layman and the visiting doctor, namely, some scientific knowledge of mental disease. To construct a home for (presumably) the worst class of the insane, and then to make a knowledge of insanity a disqualification for office within its walls, is a mode of procedure which our English and Scottish critics might be excused for making merry over as rather "Hibernian" in conception.

As to the second reason alleged, that a resident medical man would be superfluous, because "the mental condition of the patients is incurable and their bodily health not bad," and because it is a vain task to try "to infuse intellect into those whom God Almighty created idiots," it would perhaps be difficult to compress more misinformation into a single sentence than is done here. To say the least of it, the form of expression is strange, and implies an arrangement of Divine Providence, which, however pardonable on the lips of poor Job or of John Stuart Mill, was scarcely to be expected from a Christian theologian. But let this also pass. Something must be put to the credit of our Celtic rhetoric; and when that rhetoric is used in the interests of a niggardly policy so foreign to our national genius, we need not wonder that it is carried beyond what is fitting in the mouths of ignorant and limited mortals like ourselves.

Enough has already been said about the weakness of the principle, curability *versus* incurability, or of dangerous *versus* non-dangerous. A remark or two remains to be made about the other idea so prevalent even in well-informed lay circles, that the bodily health of the chronic lunatics is "not bad." George Eliot makes one of her characters possess "in perfection the medical faculty of looking perfectly grave whatever nonsense was talked to him." Those who know anything practically about the care of the insane need a measure of this faculty when they hear laymen describe the physical conditions of chronic lunacy. What is the actual fact? It is more often the case than otherwise that the physical health of chronic harmless lunatics requires more attention than their more dangerous and vigorous neighbours. There are diseases, *e.g.*, bronchitis and pneumonia, to which they are specially liable. Even a slight accident takes on in their cases a seriousness wholly absent did it occur in a sane person. It may be asserted without fear of contradiction by any competent authority, that the physical health of a given number of harmless incurable lunatics requires more skilled attention than that of the same number of destructive "incurables." It will be replied that provision is made for proper physical safeguards by the appointment of a visiting physician; to which it is sufficient to object that such a physician cannot be summoned by magic when a sudden crisis arises, nor can he, in the half hour or so he spends daily in the institution, give that close watching to the development of the complaint by which alone amelioration may be expected. The clear necessity is that there should be resident in the house a properly qualified medical man.

But once more, giving the reins to our imagination, let us conceive that we have our building, our "incurables," and our layman, what kind of attendants does the new scheme contemplate? The writer already quoted describes them for us—"a few strong, vigorous women, neither squeamish nor over-refined." One rubs his eyes in wonder whether he reads aright. There is no mistake; the words are there and cannot be explained away. And yet they sound like a voice from a long-vanished time, when it was thought that anything was good enough for a lunatic. Of course the notion implied in the words is that what is suitable enough for the needs of the sane pauper is

also good enough for a lunatic pauper. Such an idea throws contempt on all that has been done by the philanthropic efforts of the past quarter of a century, and means a reversion to a semi-barbarous condition from which escape has been made in every fully civilised country. The qualities needed in those who keep watch and ward over the mentally diseased are exactly the opposite of those desiderated by the pseudo-reformers. It is not so much "vigour and rigor" that is required, as kindness, patience, sympathetic forbearance, and skilful management; and these are the very qualities demanded in the attendants of an ordinary asylum. Here also one fails to see how the interests of economy can be served under the proposed system.

So far this paper has been critical, and necessarily so, for the lay mind requires to be emptied of many fallacies and misconceptions ere a sound apprehension of the spirit of lunacy legislation can be inculcated. The question now emerges: How can the Irish county councils carry out the intention of our Legislature with due regard to economy and to the interests of suffering humanity? As a principle, generalised from experience, it may be laid down that the mass of the insane can best be cared for in institutions where the guardianship and observance of them will be easy, and that no special class of the insane should be withdrawn from the highest available medico-scientific oversight. That this principle underlies the recent enactments is obvious. Here are the words:—"Any such auxiliary lunatic asylum shall either be a separate asylum within the meaning of the Lunatic Asylums Acts, or if the Lord Lieutenant so directs, *a department of such asylum*." Now, of course, to reconstruct a disused workhouse, and transform it into a separate lunatic asylum would be fatal to economy, nor, with rare exceptions, would such a transformation be necessary; but what is to prevent its being recognised as a *department* of a main asylum? In this latter event the law would be carried out if a senior medical assistant were appointed resident manager, and the institution brought into organic connection with the main asylum, and have the advantage of the general oversight of the resident medical superintendent belonging to the latter establishment. And yet the more one reflects on the matter the more he is convinced that, except in isolated cases, the plan of erecting a

separate building, or of adapting an already existing structure will help neither the rates, nor medical science, nor the interests of a sound philanthropy. Here the safest guide is the experience of others.

The best asylums are now built in such a way that "curables" and "incurables" are housed in two different apartments under the same roof, and receive the same medical oversight. This is the plan which, I believe, is in the true line of asylum reform, and is at the same time a realisation of the intention of the law. It is admitted that the present asylums are overcrowded, and that the detention of lunatics in the workhouses is a scandal which must be removed. The present accommodation is clearly inadequate. What then is the cheapest, most scientific, and most humane way of solving the problem? I contend that it is by the erection of annexes to the present buildings of an inexpensive sort, the inmates of which would be under the discipline of the asylum, and in all respects share its privileges. The internal arrangements could be of a simpler and less elaborate style, the main regard being had to airy day-rooms and dormitories, and to a sufficiency of clothing and food of a reasonable quality. The present staff, moreover, could be utilised, with perhaps a slight increase in the number of attendants, and while cheapness would have its due meed of respect, humanitarian and scientific interests would suffer no neglect; for the skilled medical attention thus rendered possible would be able to note any hopeful change in the chronic patient, and single him out for special remedial influences. The entire development of his malady is under strict watch all the time, and the slightest signs of returning mental health cherished and strengthened. Those who take a different view tell us that all this is "mawkish sentimentality" and "philanthropy run mad." But what are we to say when they go on to tell us that those whom "God Almighty has created idiots," and who are therefore incapable of amelioration at the hands of trained physicians, are quite capable of profiting from the ministry of paid chaplains? It would be easy to point out that the psychology underlying such a view is probably the most extraordinary ever conceived by the wildest and the most undisciplined imagination; easy, indeed, to excite the laughter of the gods at the fantastic incongruity of the thought. But no! We will not return railing for railing. We

prefer to believe that we have another illustration of the irrepressible instincts of a gentle heart crying out against the cold-blooded and harsh dicta of a wrongly-instructed head. And the heart is right; it has its reasons, as Pascal teaches, which are but dimly understood by the head. For the heart, that is the philanthropic instinct inborn in each of us, lifts up its voice on behalf of the rights of personality even when personality is eclipsed by the dark shadow of madness. Chaplains are rightly appointed; but what does their appointment imply? This at least—that the madman is still a man, that he has moral sensibilities, a conscience, a will. And what does this mean but that he has still a mind, in germ at any rate, and that with neglect he suffers, and with training he improves? And thus our discussion issues in the overthrow of the vital principle of the proposed departure, and with its overthrow my task is finished.

I may be excused, perhaps, for following in the wake of the preachers, and uttering a note of warning in conclusion. All legislative reform in the control of the insane during the past twenty-five years has been under the stimulus of science and philanthropy. It has already met with a large measure of success, and is even more likely to do so in the future *if the guardians of the insane are loyal to their high trust.* We are constantly met by the opposition between the rates and benevolence. That opposition may be avoided if the problem be faced in a large and public-spirited manner, not in a mean and parsimonious spirit. But even should we be called on to make some sacrifices for our suffering kinsfolk, the thoughts of duty done, of suffering alleviated, of the darkest affliction that can overtake our poor humanity receiving the best that skill can do, ought to be a sufficient reward. The path of every reform is beset by crude and ill-digested theories, carpentered together out of fragmentary and superficial ideas. To adopt these easily made theories is to put back the hands on the clock of progress, is to undo the work achieved by the labour and sacrifice of those who have preceded us, and is to merit the contempt of those who come after us. The Irish county councils are on trial before the whole Kingdom. They stand at the parting of the ways. Which is it to be—Progress or Retrogression?

(1) See the letter of the Bishop of Ross in the *Cork Daily Herald* for February 11th. The report of a speech by the same prelate in the issue for February 23rd.

Also letter in *Freeman's Journal* for April 13th.—(2) See *Freeman's Journal*, April 13th, 1901.

Discussion

At the Annual Meeting of the Medico-Psychological Association, Cork, 1901.

Dr. Nolan said: My paper on "Residual Lunatics and Recent Legislation" is on the same lines as Dr. Graham's; he touched upon the propositions from a more humane point of view, I worked it out from a financial aspect, to show that there is no economy in the proposed new departure. My Committee have, therefore, withdrawn their similar project. It has been proved now that the cost of the ordinary pauper lunatic in a workhouse is something like 7*s.* a week, that is the ordinary rate in the northern Unions. My Committee found that they would not gain anything by erecting an auxiliary asylum, but, on the contrary, that the cost would be a great deal more than if they enlarged the existing asylum.

The President.—You will expect a word from me. What originated Dr. Graham's paper were some remarks made by influential members of my Committee of Management. A great deal of discussion took place, and the Lord Lieutenant has now declared that the auxiliary asylum which is being constructed at Youghal is part of the parent asylum. It is a substantially constructed building, it has been very little used, and £21,000 are to be spent upon its equipment for the accommodation of 400 patients. It is near the sea, and I think that it will be a valuable adjunct to the main asylum, as it will enable me to move convalescent patients there before they are finally discharged. The chronic patients will be kept there, and when necessary they can be moved to Cork with facility. I think that the plan will work very well, and when the building is ready for the accommodation of patients I do not think there will be much difference of opinion as to the necessity of sending a medical officer to take charge of it.

Dr. Urquhart.—It strikes us in Scotland as being extraordinary that so much heat should be evolved by this question. It is dangerous to speak of the intimate affairs of a country with which one is not familiar, but I venture to point out that these methods have existed in Scotland for a long time,—that is to say, certain wards in workhouses are set apart for the reception of chronic, incurable, harmless insane patients. I suppose we ought not to call anybody *incurable*, but as a matter of fact, in everyday life it is convenient to use that word; even Dr. Graham cannot get away from it. We are familiar with the class in practice. Some of us have been rather pleased with this system in Scotland. It has existed under this precaution, that these wards in workhouses are licensed by the Lunacy Commissioners, and that the patients who are there have filtered to those wards from the asylums—that is to say, the insane person goes first to the asylum, but if thereafter he can be certified as an ordinary harmless chronic case, for whom asylum treatment is no longer necessary, he may then, and then only, be relegated to the workhouse wards. They are under lay management, and are visited day by day by the medical officer attached to the workhouse. In Perth I have taken many asylum physicians to see the wards in the workhouse there, and I have never once heard any of them raise objections to the system. The patients are adequately dealt with, and the wards have been set apart and properly fitted for the purpose. As a matter of fact, the Commissioners in Scotland have refused to license more of these wards. Yet, if I remember aright, it was suggested that Irish workhouses might be so utilised by the report of a committee of which Sir Arthur Mitchell, lately Commissioner in Lunacy for Scotland, was a member. In Fife the other day the corporation of one of the towns asked that part of their workhouse might be licensed for the accommodation of their insane patients, but, as far as I understand from Dr. Turnbull, they had gone to the Commissioners to ask that their workhouse should receive patients who had not passed through the Fife asylum. That was repugnant to us, because we believe that only those cases certified as I have indicated should go to the workhouse. Formerly at least one Scottish Commissioner held that the insane did not require much medical oversight, an opinion which is now happily extinct, and under his supervision several small district asylums were devoted to the care of the insane, acute and chronic, and

three of these still exist in the north of Scotland without Resident Medical Superintendents. I do not think it a good plan, but still it has been carried out, and favourable reports are still to be found in the Blue-books. Certain questions now arise, consequent upon the increase in the numbers accommodated. Still, that is the state of matters in Scotland, although it may not be at all applicable to Ireland.

Dr. NOLAN.—I beg to propose—"That we, the Medico-Psychological Association of Great Britain and Ireland, *condemn in the strongest manner any project* which leads to substitute lay for medical supervision for any class of the insane, as, in the adoption of such a course, we see nothing but disaster for the unfortunate class whose lot so urgently demands amelioration. We also desire to give expression to our opinion that the financial basis of the provision for the chronic insane in Irish workhouses needs amendment, as it was calculated on a sum which has altogether proved inadequate to support the ordinary paupers in workhouses, and failed to take into account the necessity for more liberal treatment in the future. We would commend to the consideration of the Executive the increase of the grant from 2*s.* per head to 4*s.* per head per week for all pauper lunatics."

Dr. RUTHERFORD.—In Scotland every pauper lunatic under the General Board of Lunacy receives a grant of 4*s.* per week, whether in asylums or poor-houses, or boarded out. The General Board have it in their power to withhold the grant if they see anything wrong. In asylums where there used to be one assistant there are now two; where I used to have two I now have four; in fact, we are doing all we can to increase that higher supervision which I think so important.

Dr. CLOUSTON.—With reference to our Scotch practice I would desire to correct the effect of Dr. Urquhart's statement by pointing out that in Scotland hitherto, wherever we have had a certain number of harmless patients, they have always been in small numbers, and they have never approached the numbers to be accommodated in your auxiliary asylum. To my certain knowledge the Commissioners of Lunacy in Scotland have regarded the larger crowds of fifty in the lunatic wards of poor-houses as less satisfactory than the smaller crowds of ten or twenty, which is the most common number. We have full two thousand patients boarded with private families in twos and threes, and in regard to these there is no need of constant medical supervision. If you miss medical supervision you gain domestic environment, while they are still under the supervision of the Commissioners of Lunacy, which is very desirable. This system has been most successful. The second point I would desire to emphasise is this: I do not think the remarks quoted by Dr. Graham are realised more strongly by him than by each of us. These mistaken ideas are the result of want of knowledge and want of consideration; but if Dr. Graham will allow me one suggestion, I would counsel a little less of the critical spirit, for all we want is to *persuade* our masters, the public, and not to lecture them too acutely. And lastly, I would accentuate in the strongest manner what Dr. Rutherford indicated, that all the improvements in the treatment of the insane have arisen from the medical and scientific idea, and that these improvements have been among the most striking in any department of philanthropy. From my experience I would say that neither the philanthropic idea, nor the religious idea, nor the administrative idea is fit to cope with such an extremely difficult subject as insanity. The result of applying these ideas, uninformed by science, would be that the treatment of the insane would go backward instead of forward. On the other hand, I quite agree that we should not throw cold water upon any reasonable experiment. We have seen many experiments that did not look at first feasible result in good for the insane.

Dr. TURNBULL.—We had in Scotland, near Aberdeen, a duplicate of the Cork Auxiliary Asylum. The Aberdeen Royal Asylum acquired a house in the country where for a time there was no resident assistant, although one has been recently appointed. We cannot pass the resolution in its present form, for we would be petitioning against a system that has given good results in Scotland.

The PRESIDENT.—Probably our Scotch friends manage the Government better than we do in Ireland. Not only did they secure 4*s.* a head, but 4*s.* 7*d.* one year, and 4*s.* 5*d.* another year has been paid, and all their lunatics in workhouses in Scotland are certified, and get a 4*s.* grant. Unfortunately most of the lunatics in

the workhouses in Ireland are there as paupers, uncertified and unregistered as lunatics, and there is no grant whatever for them. That is a great difference, and shows that we are very badly treated.

Dr. NEWINGTON.—I think that it will be necessary to consider Dr. Nolan's motion to-morrow. There are methods which do well in England and Scotland, and which we could not possibly condemn. In England the 4*s*. grant is entirely confined to patients in the asylums. It has been proposed that this grant should be extended to all lunatics, as in Scotland; but a great number of our associates objected. They say that the grant was made in the hope of keeping asylum cases out of the workhouse. It had that effect, but it also brought a tremendous load of chronic residual cases out of the workhouse into the asylum. It is very much feared that if the grant be extended to workhouses the process will be reversed, and that many acute cases as well as senile dements will be kept in the workhouses. We should therefore not pass the resolution, as it might pledge us to views which many of us do not hold. Something might be arranged which would secure our unanimous acceptance. I move that this question be adjourned until to-morrow.

Dr. NOLAN.—It appears that I have been speaking to an audience which, with some exceptions, has not the remotest idea of the situation in Ireland. Then there is still another misunderstanding. You have been speaking of lunatic wards in the workhouses of Scotland. Here we have no such thing, but the idea is to fit up a disused workhouse for the purposes of an asylum. I am afraid, sir, that there is not a full and clear understanding of the circumstances, and that you are comparing conditions and people in Scotland and Ireland that are absolutely different.

The PRESIDENT.—What Dr. Nolan has said is an argument for not pressing this motion to-night. I am in sympathy with him, and hope that a resolution will be passed that will meet the views of all our members. Dr. Newington proposes that it be remitted to the Council and then put before us.

Dr. CLOUSTON.—In that case the Council should request the presence of Dr. Nolan.

Dr. NOLAN.—It is impossible for us to be here to-morrow. I wish you could take it up to-night.

Dr. GRAHAM.—I should like the members to vote now, so that we may see what interest it has for them.

The PRESIDENT having read the resolution—

Dr. URQUHART said: It is impossible for any Scotsman to vote for that. There are more than 2000 insane patients under successful lay supervision in Scotland besides those in workhouses.

Dr. NOLAN.—I will withdraw that part if the meeting desires it, and leave the resolution to simply ask for the grant of 4*s*.

Dr. NEWINGTON.—Would it not be better to be unanimous, and put before us a resolution that everybody will accept? Knowing the history of the Association, and the different opinions held by its members throughout the United Kingdom, I do not think it would be fair to call upon the Association to hastily pledge itself upon this point. I think that a conference between Dr. Nolan, Dr. Urquhart, and myself would enable us to hit upon a non-contentious motion.

Dr. HYSLOP.—I agree with Dr. Newington that this matter should be adjourned. It is absolutely necessary that we should have the fullest information before we, as a body, give our sanction to anything that might be done. If the proposition is drawn up in a more temperate manner for to-morrow we shall be able to deal with it.

Dr. CLOUSTON.—I second that. I am sure that the Association desires in the heartiest way to take up the general idea of Dr. Graham's paper, but it should be done in a somewhat more effective form.

The PRESIDENT.—Then we are agreed that this question will be taken up to-morrow morning.

At the General Meeting on the following day

Dr. NEWINGTON said: It will be within the recollection of this annual meeting that yesterday a matter was adjourned in order to be taken into consideration by the Council; it was in relation to the treatment of the insane as possibly contemplated by the new Local Government (Ireland) Act. The matter was brought forward, and as soon as it was fully stated its importance was at once recognised by the whole of the Association. The Council took the subject into consideration

this morning, and has come to the unanimous conclusion to submit to the Association this resolution in the hope that it will be unanimously adopted:—"It is resolved by the Medico-Psychological Association of Great Britain and Ireland that, having considered the provisions of the Local Government (Ireland) Act for dealing with the insane now in workhouses, it views with apprehension any scheme which will permit or favour the aggregation of insane patients requiring institutional treatment, except under skilled medical supervision. It is of opinion that all patients in auxiliary asylums should be on the same footing in regard to the Government capitation grant as those in the district asylum." I now beg to move that resolution on the part of the Council. No doubt it would have come better from the President, but it is considered that this is a matter which should run no risk of being considered to be a local affair. It affects the Association in all its branches in the United Kingdom, because it is one of the first duties of the Association, it is one of the essential reasons for the constitution of the Association, that it shall do its best to improve the treatment of the insane. In all parts of the kingdom the care of patients singly has been forwarded, especially in Scotland, where there is, under this head, a large amount of home treatment. There is no reason why the same amount of liberality should not be accorded to patients in England or Ireland. But it is quite different when it comes to the aggregation of cases under lay supervision. One of the things this Association has to combat is the neglect, ill-treatment, and other disadvantages attending the aggregation of lunatics who require care and treatment in large institutions without proper medical supervision. We do not for a moment wish to say that ideas of merciful and of good treatment are the monopoly of the medical profession. We know many laymen who have the best instincts, and are most loving in treating the insane, but we say emphatically that the medical element is absolutely necessary in caring for large bodies of the insane in one institution.

Dr. CLOUSTON said: After the exhaustive way in which our Treasurer has brought forward and supported this resolution I feel that it is not necessary for me to say anything, but, as probably the oldest member of the Association present, I have the greatest pleasure in discharging the duty laid upon me of seconding this resolution. I am sure that the gentlemen who brought this matter forward have done a service to the Association and to the insane. I trust that it may be abundantly successful. I suggest that our Irish Secretary should have copies of this printed and forwarded to every newspaper in Ireland; the smaller and the more insignificant the newspaper, the more necessary it is that its readers should be educated. I am sure that there cannot be a dissentient voice to this resolution.

Dr. HARVEY (Clonmel).—I agree that the only way to settle the question is to educate the people. My Committee have come to the conclusion that it would not be for the benefit of the insane to adopt the course suggested by recent legislation. They have decided after mature consideration that it is better to extend the present asylum. With a little attention we shall probably get over the idea of auxiliary asylums under lay management.

The proposition was then put to the meeting and carried unanimously.

Dr. NEWINGTON.—I beg to move that a copy of this resolution be forwarded to the Chief Secretary for Ireland and to His Majesty's Inspectors of Lunacy.

Dr. URQUHART.—I beg to second that.

Passed.

On the Favourable Results of Transference of Insane Patients from one Asylum to another. By A. R. URQUHART, M.D., F.R.C.P.E., Perth.

WE are doubtless of one mind in believing that change of scene and surroundings is necessary for those whose work lies

amongst the insane, and I am sure that our thoughts must turn towards the monotonous lives of our patients during our holidays, spent *procul negotiis*. They are still in the same wards, with the same neighbours, tied to the same narrow round.

These considerations have led us to adopt the principle that our hospitals for the insane should be as varied in accommodation as possible, and that the patients should be induced to take part in useful occupation and amusements, designed to break into the routine of institutional life. But should we not go a step further, and change a patient not only from one ward or one house to another, but from one asylum to another? I plead especially for the chronic troublesome cases. Filled with delusions, resentful against his guardians, introspective and morose, it is a problem how he is to be delivered from the vicious circle into which he has dropped. We have all seen recovery, as by magic, when a patient has been induced to take up some employment. I remember a woman from whom deep and chronic melancholia passed away when she became interested in a machine for knitting stockings. There is nothing new in urging this, and no attendant is more valued than he who is fertile in devising and kindly in persevering with methods such as I have indicated. Attendant G. A. Harvey, in the July number of the *Asylum News*, writes illustrating this principle of treatment, in having persuaded an elderly chronic patient to take up the concertina as an amusement, with the result that he made an excellent recovery. Facts of this nature are most encouraging, and lead us to consider whether more might not be done to awaken dormant mentalisation, or at least to minimise mental troubles.

For many of course recovery is impossible, but there is a group of cases who have progressed so far towards recovery and yet remain stationary. We have left the bath of surprise far behind, though less than a month ago I was seriously asked to administer some such shock to a melancholic lady; but it is possible to replace the element of surprise by less primitive and cruel means.

It is common knowledge that most troublesome patients very frequently turn over a new leaf in conduct on being sent to a quieter ward, or to another asylum. Just as it is

certain that there is a general increase in body-weight among those transferred from one asylum to another, altogether irrespective of dietetic arrangements, so it is true that as a general rule a change more or less complete, more or less lasting, comes over the mental state in the direction of improvement—altogether irrespective of the merits of the asylum receiving the cases. I take it, after a very wide knowledge of asylums, that one institution for the insane is very like another. There is a high level of excellence in the asylums of our country, and any change, mental or physical, is therefore to be credited to the effects of change, and not to rival splendours or rival comforts.

It is a good many years since I first directed the attention of the Association to this method of treatment. Owing to the kindness of my colleagues it has been possible for me to prosecute it with considerable success and to a considerable extent. I always feel diffident about presenting statistics from a small asylum, and shall not detain you long with mere figures. Besides, these statistics refer to patients some of whom were in such an untoward state as to preclude hopes of improvement. Some had gone the round of Scottish asylums for private patients. And why not? The mere cost of removal is not prohibitive, and the physician is in a much better position relative to his patient if he can say, "You have tried all our wards and all our houses, now choose your asylum and take a change wherever you may feel inclined." My observations, of course, refer to private patients; but we have had, in Scotland, instances of changes having been arranged for State-supported patients, although that is still insufficiently developed. These have referred to chronic troublesome patients, and also to cases probably curable and requiring change with that in view.

Gratifying results in relation to mental condition followed closely on the transfer of twenty-one cases in Murray's asylum, and of twenty-five cases in other asylums.

The recoveries in Murray's asylum numbered nine out of eighty cases, and those in other asylums numbered thirteen out of 117. I shall not enter on clinical details in reference to these recoveries. Twelve were of an apparently unfavourable nature. Two were cases of delayed recovery. Three have since relapsed. It would be absurd to claim anything

more than a moderate amount of success in these results. Still, we cannot afford to neglect any reasonable means of treatment, even if benefit is scanty in statistical returns. We arrive at the conclusion that some 5 per cent. of all cases are amenable to improvement under thyroid treatment—one of the most remarkable of our medical discoveries; but here we have a percentage of eleven recoveries, many of them having been in unfavourable circumstances owing to the duration of the mental malady.

The statistics presented have so little to do with State-supported patients that I need not complicate them by differentiating on that score. The period refers to twenty years ending with 1899. In those twenty years there have been 80 patients transferred *to* Murray's asylum (43 men and 37 women): and 117 transferred *from* Murray's asylum (60 men and 57 women). Of the former class 19 (12 men and 7 women) were received from county asylums; and of the latter 42 (21 men and 21 women) were sent to county asylums. There is no marked difference in the results gained between the two classes of asylums—county and private. Indeed, on more than one occasion, patients on going to county asylums have expressed a feeling of relief that their maintenance would no longer be a charge on their friends, and have improved on the feeling of indebtedness having ceased.

In order to revise my impressions regarding body-weight, I have considered our records regarding chronic dements, and, in spite of influenza epidemics, conclude that there is little variation individually from year to year. The results of change in relation to body-weight is therefore the more striking: 41 patients, out of 80 received here, notably improved in bodily condition; out of 117 transferred to other asylums, 56 similarly improved. The total gain in weight vastly exceeds the loss. Only six fell off, consequent on admission to Murray's asylum, and these were all subject to bodily diseases of a wasting nature.

When my friend Mr. Sankey, of the Oxford County Asylum, heard of my intention to address you on this subject, he wrote to the effect that his experience had been that many chronic patients, belonging to the public and private class, had suffered owing to change of asylum. That was a very startling proposition to me, and led to an examination of all

the deaths recorded in the accompanying tables, with results satisfactory in detail: 22 of these transferred patients died in other asylums, and 17 in Murray's asylum—that is 39 in all: 26 deaths which occurred long after transfer had been effected are of course irrelevant to the issue. Of the remaining 13, all of whom died within a few months of transfer, 6 were general paralytics, 3 died of phthisis, 3 died of degenerative lesions of the nervous system, and 1 committed suicide. In none of these was death hastened by the change of asylum.

These are, briefly, the results of my experience in this matter, and it would have been impossible for me to have followed up the history of the cases in detail had it not been for the active and kindly co-operation of the medical officers in the twenty-two asylums to which these cases are referable. At no small labour, search was made in their records, and the results are now presented with every confidence.

Transfers to Murray's Asylum—20 years, 80 cases.

	Chronic mania.			Recurrent mania.			Chronic melancholia.			Delusional insanity.			Dementia.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Early results:															
Mental { Good	4	2	6	3	2	5	3	1	4	..	2	2	2	2	4
Mental { Indifferent	4	7	11	2	2	4	5	6	11	8	6	14	12	7	19
Mental { Bad	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	8	9	17	5	4	9	8	7	15	8	8	16	14	9	23
Bodily { Good	4	2	6	4	4	8	4	3	7	3	4	7	7	6	13
Bodily { Indifferent	4	7	11	...	...	...	1	3	4	5	4	9	6	3	9
Bodily { Bad	...	...	...	1	...	1	3	1	4	...	...	...	1	0	1
Total	8	9	17	5	4	9	8	7	15	8	8	16	14	9	23
2. Final results:															
Discharged recovered	3	1	4	1	1	2	3	0	3	...	...	...	...	...	.
,, unrecovered	2	4	6	4	0	4	2	5	7	3	3	6	3	5	8
Died	2	1	3	0	2	2	2	1	3	1	2	3	6	0	6
Remain in asylums	1	3	4	0	1	1	1	1	2	4	3	7	5	4	9
Total	8	9	17	5	4	9	8	7	15	8	8	16	14	9	23

Transfers from Murray's Asylum—20 years, 117 cases.

	Chronic mania.			Recurrent mania.			Chronic melancholia.			Delusional insanity.			Dementia.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1. Early result:															
Mental { Good	2	3	5	3	2	5	4	4	8	1	1	2	4	1	5
Mental { Indifferent	6	13	19	1	1	2	9	11	20	11	7	18	16	9	25
Mental { Bad	...	...	...	...	...	...	2	2	4	...	...	...	1	3	4
Total	8	16	24	4	3	7	15	17	32	12	8	20	21	13	34
Bodily { Good	4	11	15	2	2	4	8	9	17	9	4	13	6	1	7
Bodily { Indifferent	4	5	9	2	1	3	7	8	15	3	4	7	14	12	26
Bodily { Bad	...	...	...	...	...	...	...	...	...	..	...	...	1	0	1
Total	8	16	24	4	3	7	15	17	32	12	8	20	21	13	34
2. Final results:															
Discharged recovered	1	1	2	...	1	1	6	4	10	...	...	...	...	...	...
„ unrecovered	4	5	9	1	2	3	3	2	5	3	2	5	6	2	8
Died	0	2	2	...	...	...	2	3	5	2	1	3	6	6	12
Remain in asylums	3	8	11	3	0	3	4	8	12	7	5	12	9	5	14
Total	8	16	24	4	3	7	15	17	32	12	8	20	21	13	34

Discussion

At the Annual Meeting of the Medico-Psychological Association, Cork, 1901.

Dr. Hyslop.—We all have experience of transferring patients, and we at Bethlem have larger experience than any, because we receive curable cases, which, if they do not recover, are then sent to other institutions. It is of deep interest to watch the effect of these transfers. Occasionally it is said, "You sent us cases which you had diagnosed as incurable; yet, after a period of five or six months, they have improved greatly." We have come to recognise that it is absolutely desirable that some patients should be transferred from one asylum to another; in certain cases it undoubtedly exercises a salutary effect. There are troublesome cases who make no effort to recover. We recommend their friends to transfer them to a county asylum. That is sometimes followed by beneficial results. This question which has been so ably brought before us by Dr. Urquhart is of great importance.

Dr. Urquhart.—I am indebted to Dr. Hyslop for having spoken from his large experience, and would merely emphasise a remark in my paper, namely, that I had to depend very much on my colleagues, who have developed this system of transferring patients, and who have searched their records and thus enabled me to put these few figures before the Association.

On Suprarenal Extract in the Treatment of Mental Diseases.[1]

By W. R. DAWSON, M.D.Dubl., F.R.C.P.I., Medical Superintendent, Farnham House, Finglas; Examiner in Mental Diseases, University of Dublin.

OF the innumerable organs and tissues which have been made the subject of research since Brown-Séquard promulgated his doctrine of "internal secretions," it may be broadly stated that there are practically two only in which the existence of such a specific secretion has been determined beyond controversy, viz., the thyroid gland and the suprarenal bodies. The place of the former in therapeutics is now more or less determined; at all events most have tried it and formed their own conclusions; but the uses of the suprarenal glands in treatment are still, to a large extent, undecided. It is true that in certain branches of surgical practice suprarenal extract has been found so useful as a local application that it may almost be said to have gained a position in the surgeon's regular armamentarium, and that it has been employed internally in Addison's disease by many observers, with somewhat conflicting results (1); while its use in cases of heart failure, and also in obstetrics, has recently been strongly urged (2). But beyond these more obvious applications of the properties of its active principle, there are certain other diseases, notably some forms of psychoses, in which it would seem probable that those properties might render it valuable, and what little use has been made of it in this direction to some extent bears out this expectation.

In laying down the principles upon which the investigation of new remedies should be conducted, Dr. Easterbrook, in his valuable prize essay of last year, maintains that no new remedy should be tried until the ordinary methods of treatment have first been applied and failed. No doubt if a new remedy succeeds after this, its efficacy must be admitted; but if it fails in so severe a test a really useful drug may quite possibly be undeservedly discredited, and thus in seeking to avoid one fallacy one falls into another in the opposite direction. The only real test of the usefulness of any therapeutic measure is undoubtedly its employment by a number of

observers, in many cases, and under all possible conditions; and therefore all such observations, provided that they are accurate as far as they go, even if not very elaborate, have their value as contributions towards the determination of the question. It is with this view that I have decided to bring before you my experiences with suprarenal extract.

The active principle of the suprarenal bodies is secreted entirely by the medullary or neural portion of the gland, and until somewhat recently defied all efforts to isolate it. Amongst those who claimed to have done so were J. J. Abel, who stated that he had obtained a greyish substance of an alkaloidal character, with the formula $C_{17}H_{15}NO_4$, which he called *epinephrin*. Von Fürth, also, by a different method, separated a body to which he gave the name *suprarenalin*; but it is stated that neither of these substances was chemically pure. At the beginning of the present year, however, J. Takamine published an account of a body obtained by him from the gland, which appears to be its physiologically active ingredient. This substance, *adrenalin*, is white and microcrystalline, of a bitterish taste, stable when dry, but highly oxidisable in solution, soluble in water, and exerting in an extraordinary degree the physiological effect of extracts of the gland. This effect has for some time been known to consist in the power of increasing the action of muscle in general, but especially that of the heart and blood-vessels (3). Thus, if aqueous suprarenal extract or adrenalin solution be injected into a vein, a marked and immediate rise of blood-pressure follows, and a limb enclosed in a plethysmograph shows great diminution in volume. Both effects are due to contraction of the smaller arteries produced by direct action of the drug on their muscular walls, the action upon the central nervous system tending in the opposite direction, as the heart becomes slowed from stimulation of the vagus centres in the bulb. The direct action of the drug upon the heart, if the vagus be inhibited, is, however, also stimulating; in fact, a heart stopped by chloral can be re-started by injection of suprarenal extract (4). It is stated that the pulmonary and cerebral circulations are not directly affected (5).

The effects of the extract or solution, used in this way, are very transitory, only lasting a few minutes, after which it is supposed that the active principle (which is certainly not

excreted) becomes stored away in the muscles in some stable form (Schäfer). To produce a more prolonged effect absorption must be more gradual, and therefore administration by the mouth seems indicated, more especially as the active principle is soluble in water and is unaffected by digestion; while it is active in such minute quantities that, as Schäfer has estimated, less than $\frac{1}{800}$ gr. in the circulation of a full-grown man would suffice to produce some physiological effect (6[a]). Yet the administration of considerable doses by the mouth has not been found to produce a rise of blood-pressure appreciable to instruments, within several hours of administration in a normal individual, though where the blood-pressure is abnormally low a distinct rise has been seen (7). I have reason to think, however, that more prolonged administration will eventually raise the blood-pressure, not only from its action in some of the cases which I am about to describe, but also from three rough experiments which I recently made to test this point.

Taking three mentally sound individuals, of whom one had an abnormally high, another an abnormally low, and the third a high normal blood-pressure, which fell in the normal manner towards evening, I administered to each on the first day 45 gr. of the whole gland in three doses, on the second 90 gr. in three doses, and on the third 100 gr. in five doses to two, while one received an extra dose, making 120 gr. In no case was the morning pressure raised, but in the third subject invariably, in the first on two days, and in the second on one day, the evening blood-pressure was either the same as, or higher than the morning, showing that the drug had acted in these cases.(8) Why it did not always so act in the first and second cases it is not easy to say with certainty, though many conjectures might be made; but it should be noted that little effort was made to ensure uniformity of diet, rest, and general mode of life on the three days (hence I have called the experiments rough). My general feeling, from what I have observed, is that to produce anything of a permanent effect, moderate doses, given for considerable periods, would be required, which is perhaps partly owing to the tonic influence said to be exerted by the drug upon the heart.

In addition to the effect upon the circulation, Easterbrook (8) has found that exhibition of the dried gland by

the mouth tends somewhat to diminish metabolism, as shown by a lessened output of urea and phosphoric acid, and perhaps by an occasional slight reduction in the total urinary solids. This observation was not borne out by analysis of the urine in one of the above experiments, as I found that all three were rather increased than diminished (4), but for the same reasons as before I do not attach great importance to this result, in comparison with that of Easterbrook's careful experiments. In one of the cases to be described there certainly was a diminution. The point, however, cannot be said to be decided.

Therapeutically, in addition to the uses already mentioned, suprarenal administration has been tried in a number of diseases more or less connected with the nervous system. Of these it is here only necessary to mention epilepsy, in which the drug appears to have been first employed by Mairet and Bosc, who considered it useless if not harmful. C. Hill (9), however, using a compound of glycerine extract of the fresh gland with calcium chloride and sodium bromide, obtained a partial success, and especially lays stress on "the striking improvement in the mental and physical condition of the patients." So far as I am aware, however, the earliest allusion to the use of the drug in actual mental disease is contained in some notes published by myself last August (10), in which I mentioned having employed it with good results in a case of adolescent mania. To Easterbrook (8), however, is due the credit of the first more detailed account of its employment in insanity. He administered it in four cases; in three melancholiacs without effect, and in one case of adolescent mania with distinct benefit, there having been a cessation of excitement during the treatment. This result he attributes partly to reduced metabolism, and partly to the probable rise of blood-pressure produced by it; but he does not appear to have used the sphygmometer in these cases.

I was myself led to try suprarenal administration from a consideration of its property of raising the blood-pressure, as it has been found that in many cases of mania this latter is remarkably low, and consequently I first employed it in a case of adolescent mania, as mentioned above. Since then I have tried it in five other mental cases, including two of adolescent and one of ordinary acute mania, one of an acute attack occur-

ring in a paranoiac, and one of early general paralysis. In addition to these a sane epileptic voluntary patient, with a tendency to depression, was kept for some time on the drug. The form of administration was in all cases tabloids of the dried gland, prepared by Burroughs and Wellcome, given by the mouth, as, if carefully prepared, there is no reason why the drug in this form should not retain its activity for a considerable time. (5) The blood-pressure was taken by means of Hill and Barnard's sphygmometer.

CASE 1.—An unmarried girl, æt. 25, was admitted on March 7th, 1900, suffering from a first attack of adolescent acute mania, which had commenced about three weeks before; neuropathic heredity. She was poorly developed and looked much younger than her age, but was physically healthy. She showed the ordinary hysteroidal elevation and flippancy, and was restless, inclined to do impulsive things, would undress herself at times, was wakeful at night, and tended to be wet. Food was well taken. On March 22nd the administration of suprarenal was begun, other treatment having been tried without much effect, though she had become a shade quieter. One tabloid, equivalent to 5 gr. of fresh gland, was given thrice daily, and increased to two tabloids on April 2nd, and again on April 16th to three, which was kept up for over a month, making some two months' treatment by the drug in all. During this time there was steady progress, and on April 22nd slight stupor was noted. It may be remarked also that on the days when the drug was commenced or increased a certain improvement was observed. The patient was so much better towards the end of May that the drug was stopped, but progress became markedly slower, so that after about a month's intermission administration was recommenced on June 22nd, on which date the blood-pressure was found to be only 100 mm. 10 gr. thrice daily were given, increased to 15 gr. on July 1st, and convalescence became much more rapid. On July 25th it was noted that she was "pretty sane, though still a little flighty and elated," and on August 5th that she was "practically well, though a little unstable." On the latter date her arterial pressure had risen to 110 mm., at which height it remained. The drug was stopped on August 17th. As she continued to show signs of instability, however, she was not finally discharged until the following month. She has kept well ever since.

The evidence of benefit derived from the drug in this case was, therefore, rather the comparative rapidity of progress during its exhibition than the shortness of the attack, which lasted seven months, if the date of discharge be taken as its termination; but at the time we had no doubt of the advantage derived from it. The rise of arterial pressure is to be noted.

In the next two cases the advantage gained is not so evident.

CASE 2.—Unmarried girl, æt. 28, admitted December 5th, 1900, suffering from acute mania of six days' duration. Family history of phthisis, and one relative had been weak-minded. This was the third attack, the first, a very short one, having taken place at the age of seventeen; the second, of nine months' duration, which resembled the present, about four years back. She was naturally a silent, nervous, morbidly conscientious girl, and of poor physique, though the only sign of physical disease was the presence of a trace of albumen in her urine. She was restless, noisy, impulsive, destructive, and erotic, wakeful at night, and dirty in her habits. At the same time an element of stupor was perceptible all through, becoming more marked as the excitement subsided. On December 10th suprarenal was begun (three 5-gr. doses being given on that day, and 10 gr. thrice daily on the following days), and on the 10th it is noted that she was rather quieter. Administration was interrupted for a time after December 12th, but was subsequently continued, and the dose was raised to 15 gr. thrice daily on January 5th, and to 20 gr. on the 13th. As it did not seem to be producing any particular effect it was stopped on the 14th, on which day and for a day or two subsequently the patient was certainly worse and more excited, but had quieted down by January 19th. The blood-pressure on December 21st was about 130 mm., but the reading was not very reliable, owing to the patient's restlessness. Some improvement took place, but very slowly, during the late winter and spring. The blood-pressure on March 11th was still high (about 130—140 mm.). On May 10th 45 gr. suprarenal were again administered in three doses, and the same next day; then 60 gr. daily from the 13th to the 19th inclusive, and 75 gr. on the 20th and 21st; but without effect on the mental state. During this trial the urea was estimated, and was found to have diminished slightly, the total output on the 9th—10th being ·874 oz., while that on the 21st—22nd was ·76 oz. The phosphates were practically unaltered, if not a trifle increased. Blood-pressure on the 21st was 115 mm. Immediately after this the patient was put under thyroid treatment, under which she made a good and rapid recovery, the blood-pressure having fallen to 110 mm. at the time of her discharge.

In this case the suprarenal administration produced little result, but it is to be noted that the blood-pressure was high; in fact, even during thyroid treatment it was usually 120 mm. (in the morning), though it fell subsequently; and with the high blood-pressure is to be correlated the strong element of stupor which pervaded the case throughout. It should also be observed that the albumen reappeared in the urine during thyroid treatment, though it afterwards vanished again. The diminution in the urea excreted under suprarenal treatment is to be noted.

CASE 3.—Unmarried girl, æt. 27, but looking younger, admitted December 14th, 1900, suffering from mania. Two previous attacks of insanity, both of mild melancholia, the first at the age of about twenty-four; no insane heredity. Present attack had lasted about eight and a half months, and was said to have been caused by overwork and neglect of physical health. She had been under treatment since an early period of the attack in a well-known English asylum, where her mental condition appears to have been much the same as during the earlier part of her residence at Farnham House, and had improved little, if at all, for some time. She was excited and elevated, restless, at times twisting her limbs into attitudes, laughing, crying, whistling, chattering more or less incoherently, did not respond readily or coherently when spoken to, and betrayed hallucinations of hearing. Coincidently there was a certain element of stupor present, especially marked at times. She was wakeful at first, but soon began to sleep fairly. Her appetite was good. The bowels tended to be constipated, but she was wet and dirty. The general physical health was good, except for a little anæmia and cardiac weakness, and a very slight trace of sugar in the urine on one or two occasions. The blood-pressure could not be taken, owing to her restlessness.

Suprarenal administration was begun on December 19th, on which day 10 gr. were given, increased to 30 gr. in three doses on the 20th and 21st. From December 22nd to January 23rd 45 gr. *per diem* were given, the drug being stopped on the latter date. At first it seemed to have a slightly quieting effect, and it was found possible to discontinue sedatives at night after the first dose, but improvement, if due to the drug at all, soon ceased or became very slight, and when administration was stopped there was no perceptible change.

The patient's progress not being satisfactory another trial was determined on, and from April 3rd to 9th inclusive she received 45 gr. *per diem*. Since the beginning of that month she had been subject to fits of ill-temper with violence, but about the 7th (*i.e.*, the fifth day of suprarenal administration) it began to be noticed that while there was ill-temper morning and evening, in the afternoons the patient was saner. She was menstruating from the 9th to the 11th. On the 13th she was kept in bed as a preliminary to thyroid treatment, and on that day for the first time she was rational and behaved sanely. A light thyroid treatment was given (though perhaps, as improvement had already set in, it was hardly necessary), and she made a good and uninterrupted recovery.

The condition of the blood-pressure during the acute part of the attack is unknown, as it was first taken on the morning of April 14th, being then 110 mm. During the thyroid treatment it varied a good deal from day to day, but on the whole tended to be high at first,—at least in the mornings, being 120 mm. on the 17th and 18th, and 115 mm. on the 19th; but afterwards it sank to 95 mm., and remained about that up to the time of discharge. No inference, of course, can be drawn as to its condition during the earlier part of the attack, but from the existence of stupor it is not improbable that it was high.

The first trial of suprarenal seems, therefore, to have been

without effect in this case, and it is very doubtful if the second had anything to do with determining the rather sudden improvement which occurred after it; but just possibly it may have given a useful filip at the right moment.

CASE 4.—Unmarried woman, æt. 59, admitted July 31st, 1900, suffering from acute mania, which had set in suddenly four days previously. There was some neurotic heredity, and the patient had had five previous attacks, the first when about twenty years of age, the last over thirteen years before the present one. The duration of the last three attacks, which occurred fairly close together, was respectively eighteen, twelve, and four months. All seem to have been maniacal. She was restless, noisy, destructive, and violent at times, and especially at night, when she was wakeful; at other times she was quiet, but a little jerky and elated, and would not speak. She was wet and dirty. There was a slight systolic bruit audible in the aortic area, and on one or two occasions, shortly after admission, albumen was present in the urine. Blood-pressure four days after admission was found to be 140 mm., and on September 24th was 145 mm. She had quieted down somewhat by the end of September, but was sometimes flighty and elated, sometimes depressed, and not being satisfied with her progress I decided to try suprarenal treatment, which I had so far refrained from doing owing to the high blood-pressure (erythrol, it may be noted, produced no result but headache). Suprarenal gland was first given at the rate of 15 gr. *per diem*, in three doses, on September 27th, and increased to 30 gr. two or three days later, and to 45 gr. on October 8th. She became rather depressed a few days after the commencement of the drug, especially in the mornings, but otherwise was much improved mentally, writing a very sensible business letter on October 8th; and on the 29th of that month it is noted that she had been "practically well for some time, though a little excitable and jerky at times." On this day suprarenal was stopped, after being reduced to 30 gr. some days before. The patient continued well, and was discharged recovered on November 7th.

The blood-pressure on October 4th was still 140 mm., but on October 29th, *i. e.*, after about a month's use of suprarenal, it had increased to 150 mm. On the day before discharge, eight days after cessation of the drug, it had fallen to 135 mm. This case, therefore, supports the view which I have already expressed, viz., that suprarenal extract, given by the mouth, has actually the power of raising the blood-pressure after a prolonged administration. It also seems to show that an initially high blood-pressure is not an absolute contra-indication of the drug, at all events if there is reason to suppose, as in this case, that the high blood-pressure is usual for the individual.

CASE 5.—This is a case in which an intercurrent attack of acute mania occurred in a paranoiac with delusions of the erotic type, who was admitted on July 23rd, 1900. She was an unmarried woman of thirty, with very bad heredity, and her delusions had been slowly developing for about a year. There was no physical disease, but the heart was a little weak and irregular. At first she was rational and pleasant, but soon began to be troublesome in small ways, and then to make persistent and senseless efforts to escape. After about a fortnight she had to be tube-fed, and then became excited, restless, and violent, stripping herself, molesting the other patients, striking and kicking the nurses, absolutely refusing food, obstinately silent, wakeful, wet, and dirty. She also looked pale and ill. Hypodermic injections of hyoscine had to be given more than once. On August 6th, at the beginning of the attack (the day on which she was first tube-fed), blood-pressure was 135 mm. About the end of the first week in September suprarenal administration was begun, the dose being increased to 45 gr. a day about a week later. On September 11th it is noted that she was still violent, wet and dirty, wakeful, and wanting to strip herself; but two days later she ceased to be wet and dirty, and on September 18th "somewhat suddenly became composed, began to dress herself and take her meals at table, and to behave in a more civilised way," though still silent during the day and wakeful at night. Blood-pressure on this day was 115 mm., as against 135 mm. on August 5th. Improvement was maintained upon the whole, and on October 8th she began to speak again, and wrote a sensible letter. Three days later her father said that he failed to see anything wrong with her mentally, and she was probably better than she had been before the attack. Blood-pressure on October 12th had risen to about 120 mm. There has been no acute attack since, though a little troublesomeness at times; but the delusions persist, and she is, I fear, incurable.

In this case, though I am unfortunately unable to give the actual day of the commencement of suprarenal treatment, there appeared to be a very definite relationship between it and the commencement of mental improvement, while a further improvement seems to have followed increase of the dose. It may be noted that the blood-pressure in this case fell during the acute attack, though, as it was not taken while the patient was at her worst, I cannot say how low a point was reached.

CASE 6.—This was a case of very early general paralysis in a powerful man of forty-five, admitted on October 5th, 1900. He was irritable, assertive, violent, and restless, with various delusions of a grandiose type, and had to be kept more or less under sedatives. Forty-five grains daily of suprarenal gland were given on two days, but produced no noticeable effect. Possibly longer exhibition might have yielded better results, but I was obliged, for various reasons, to have him transferred to another asylum.

CASE 7.—In this case—one of minor epilepsy of many years' standing—the patient, a man æt. about 33, was sane, though usually with a tendency to depression, increased by the use of the alkaline bromides, of which he was in other respects somewhat intolerant, though it was necessary for him to take them in order to keep the seizures in check. I accordingly resolved to try suprarenal, not only on account of the favourable results obtained by C. Hill (to which I have already referred), but also because at that time the fits seemed to occur at periods of the day when the brain was considered likely to be anæmic, and it was hoped that this temporary anæmia might be counteracted by raising the arterial pressure. Administration was accordingly begun on March 18th, 1900, at the rate of 5 gr. three times a day, and was persisted in for about a month, being repeated again in the end of May. No good effect whatever was apparent, but once about this period the patient suffered from the severest attack of depression which he has had since his admission nearly two and a half years ago; in fact, he was for the time practically a melancholiac, weak and miserable, and hysterically emotional. At this time the fits stopped completely for some days.

It is just possible that the rise of blood-pressure—if such there was—produced by the drug may have increased the usual tendency to depression in this patient, in whom, it may be remarked, I afterwards found the blood-pressure to be abnormally high (about 135 mm. on September 20th); but I do not assign any importance to this case, which is only mentioned for what it may be worth. So far as it goes, however, it does not support the claims made on behalf of the drug as being useful in epilepsy.

Thus it will be seen that in four of my cases, as in one of Easterbrook's, a certain improvement followed or accompanied exhibition of suprarenal gland, which in three cases was given for a considerable time, though a certain amount of improvement appeared early. All these were cases of mania. Of those in which no good result appeared, one was a case of mania with stupor and a high blood-pressure, which fell on recovery, the recovery being effected under the agency of a drug one of the actions of which is to reduce blood-pressure; one was a case with a tendency to depression, and probably high blood-pressure, while in the third the drug was given for only two days. Easterbrook's unsuccessful cases were all melancholiacs.

In at least two of the cases which appeared to derive benefit from the drug, blood-pressure was high, but this was found to be habitual with the individual, and not con-

nected with the mental state, so that, I may repeat, high blood-pressure is not *per se* a contra-indication. With this reservation, however, it appears that an abnormally low pressure points decidedly to the desirability of giving suprarenal a trial, as that substance seems to produce whatever effect may be due to it in mental disease mainly by the tendency to raise the blood-pressure, which I think we are entitled to ascribe to it, even when given by the mouth. The reduction in the output of urea, which as I have found does not always take place, is at best so small that I hardly think much of the effect can be due to diminished metabolism, though this would, as far as it goes, probably tend in the same direction.

Although the pharmacology of the drug cannot be said to rest on a secure basis, while the number of cases in which it has been tried are far from sufficient to determine its therapeutic value, it may be useful to bring together the results of this inquiry in the form of a few definite conclusions, or rather, suggestions :—

(1) The chief physiological action of extracts of the suprarenal gland is increase of arterial pressure, but they also produce a tonic effect upon the heart, and on muscle generally, and possibly some diminution of metabolism.

(2) Owing to the transitory nature of the effects produced by intra-venous injection of the extract, suprarenal must be given by the mouth if any prolonged action is to be obtained.

It may be noted that I have not found digestion impaired by moderate doses.

(3) Both for *a priori* reasons and as a matter of experience, it appears to be indicated in conditions of excitement and exaltation, in which state the blood-pressure is usually found to be lowered.

(4) Administration for a certain length of time will probably be found necessary in most cases, in order to produce any very marked effect, at least where excitement is violent.

(5) Although the state of the blood-pressure, as a rule, forms a convenient indication for its use, high pressure does not absolutely contra-indicate it, if there is some reason to think that it is not associated with the mental state, as an abnormally high pressure may still be lower than the average of an individual case.

(6) Suprarenal extract seems unlikely to be of benefit in cases of melancholia and where there is much stupor.

(7) It therefore seems probable on the whole that the form of insanity in which it will be found most useful is acute mania of fairly recent origin uncomplicated by stupor.

These conclusions, until confirmed or disproved by further observation, must be regarded merely as tentative; but I hope I have said enough to induce others who have wider opportunities of clinical investigation than are afforded by the limited numbers of a private institution to make trial of what I cannot but think seems likely to prove a useful addition to our means of treatment.

(1) Read (in very slightly different form) before the general meeting of the Medico-Psychological Association at Cork, July 26th, 1901.—(2) Takamine found that ·5 gramme of adrenalin was sufficient to produce a distinct effect when injected into the vein of an adult man.—(3) It may be noted that the morning pressures of the first and third subjects were lower during the treatment than on the day before, and lowest on the last day; in the first the morning pressure fell still further after stopping the drug, but in the third it rose. The evening pressures of the first and third continued higher than the morning, and than the normal evening pressure, for some days after the treatment, but had resumed their normal relation in about a week. The evidence of action is therefore chiefly the tendency to raise the evening pressure which was upon the whole manifested.—(4) The increase was more distinct in the urea than in the phosphates. The output of urea was lower on the last day of treatment, but still higher than normal.—(5) Other preparations which might be given by the mouth are the dried medulla of the suprarenal gland in the form of powder, prepared by Messrs. Willows, Francis, Butler, and Thompson; and Adrenalin, prepared commercially by Messrs. Parke, Davis, and Co. Of these I have no personal experience. I understand that the latter firm also prepares a powder of the dried gland.

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Discussion

At the Annual Meeting of the Medico-Psychological Association, Cork, 1901.

Dr. Clouston.—The cases in which Dr. Dawson seemed to get the best results were those which usually did well in the ordinary, natural, clinical history of the malady. Although we do not use suprarenal extract at Morningside, I was glad to hear the results given by Dr. Dawson with regard to the action of thyroid extract, viz., that its effects are miraculous in some patients.

Dr. HAVELOCK.—What I admire about Dr. Dawson's paper is the extraordinary caution with which he expresses his opinion as to the effect of these drugs. There is nothing so discouraging to some of us as to find men rushing blindly after new drugs, prescribing them for curable cases; and when the patients recover, calmly putting the credit of the cure to the drugs so used. That is most reprehensible. We tried the thyroid treatment some years ago in Montrose Asylum, but I am not a believer in its efficacy except in myxœdema. I think that many cases recover under thyroid treatment — in spite of it rather than because of it. I would not care to give thyroid extract to any patient in whom I could see a reasonable chance of recovery; and, in mental diseases, when are we to say that a case is incurable? A case of melancholia may go on for years, and then may suddenly recover. I have often been thankful that I was not led into the fallacy of subjecting patients to this experimental treatment. We often see cases that surprise us by unexpected recovery; and if I had been giving such drugs I would have come to the conclusion that the cure was the result of the medication. If you draw conclusions, you should draw them with great reserve. About five years ago I did try suprarenal extract in melancholia, but as to the case cited by Dr. Dawson, I think that, too, is a little fallacious. The blood-pressure is always varying; it is sometimes very high, and one would be very glad if there were a drug that would safely lower it.

Dr. NOLAN.—For the last two years I have been prescribing the drugs mentioned by Dr. Dawson, and conclude that the results are upon the whole satisfactory. Convalescent cases of acute mania in adolescents often pass through a state of stupor, and then the thyroid extract is excellent, and usually leads to recovery. If we adopt the attitude of the last speaker, and fail to put the patients under a new drug when we have reason to think it will be beneficial, we shall have to stay our hands, and never try new treatment. I think that where the thyroid extract fails is when courage fails to proceed with it.

Dr. CLOUSTON.—Although I am out of order, I am ambitious to make a convert of Dr. Havelock. I had a patient (G. R.), admitted for the third time, suffering from mania, accompanied by some stupor; apparent dementia supervened on all occasions. There was no improvement whatever after each admission, but when we gave thyroid extract she got out of bed a sane woman, and when she was discharged her relations opened their eyes with wonder. The last miracle was performed last week. I adopted Dr. Havelock's plan not to do anything premature; we allowed this patient six months to build up her strength. I put that before Dr. Havelock, hoping that he will take it to heart.

Dr. DRAPES referred to the case of a young lady in apparently hopeless dementia, with bedsores. Before taking to bed she used to stand like a statue, and almost lost the use of her legs. After three or four days of thyroid treatment she began to improve, and made a rapid recovery. Another woman had to be hand-fed; after a fortnight of thyroid treatment she began to feed herself. I have had no similar experience of suprarenal extract.

The PRESIDENT.—I must, to some extent, agree with Dr. Havelock. Conclusions are sometimes drawn too summarily and too hastily regarding drugs, but that is no reason why we should not try them. We must not say that they have done good until that is absolutely proved. Two cases come to my memory. One was treated to recovery from myxœdema, and was discharged six months ago. Another suffered from melancholic stupor. I formed an unfavourable opinion of her on admission, as she had almost become a chronic case. From the day she began to get the drug she began to improve, and after six months made an excellent recovery.

Dr. EDRIDGE-GREEN referred to a patient suffering from myxœdema, cured by thyroid extract, and kept practically well for five years since discharge.

Dr. HAVELOCK.—We are all agreed that in myxœdema the drug is beneficial.

Dr. NOLAN—Yes, I considered that so obvious, I did not refer to it.

Dr. LONGWORTH.—Over twelve months ago I tried two cases with thyroid extract. Both were young girls aged 18 and 20; both had been in the asylum for a number of years. They refused food. After thyroid extract treatment there was distinct improvement in both within a fortnight. There was a marked reaction as regards pulse, etc., and menstruation, which had not occurred while they

were in the asylum, now returned; both were discharged just over twelve months ago, and they have remained perfectly well. Since their discharge I have seen them on two or three occasions. I have tried the same treatment on four or five other patients, and regret to be unable to report permanent improvement, although one was temporarily benefited.

Dr. DAWSON.—With regard to Dr. Havelock's remark, that new drugs should not be tried on cases curable by other means, I think that would be just as fallacious as the opposite contention. It is quite possible that a new drug may be of more value at an early stage of the disease than later, and certainly it is a matter of some moment whether we keep patients for a few months or for a few years in an asylum. The real test is the experience gained with a large number of patients. If the consensus of opinion upon the whole is favourable, that is a more trustworthy criterion of a remedy than if it were only tried in cases that are incurable. Although suprarenal extract is a powerful drug, I do not think there is any risk of doing harm by overdosing. I took it myself, and felt a little depressed perhaps; but that might mean a certain amount of gastric discomfort which is caused by large doses, discomfort which I never observed consequent on small. I think that the state of the blood-pressure is a legitimate indication for treatment in certain forms of insanity.

The Care of the Insane in Asylums during the Night.

By JOHN KEAY, M.D., Medical Superintendent, District Asylum, Inverness.

THE district or county asylum patient spends nearly half his time in bed. As a rule he goes to bed at or before eight o'clock at night, and rises at six in the morning.

The question whether his hours in bed might not with advantage be shortened is not one for discussion at present. The obvious difficulty at once presents itself that such a change would involve either a lengthening of the hours on duty of the day staff, which are already too long, or additions to the staff, with a corresponding increase of expenditure.

The care of the patients, therefore, during these ten hours out of each twenty-four is a problem of such importance that its introduction to this meeting needs no apology.

It is hardly too much to say that for many a long year, speaking of Scotland at least, the great bulk of the insane in asylums were without proper nursing or effective supervision at night. When bedtime came the acute or troublesome patients were locked away in single rooms, and the others in dormitories, with a touching trust that through the care of a watchful Providence they would be found all right in the morning.

For example, so recently as seven years ago in the asylum

at Inverness the night staff consisted of two persons, called the night watches—an attendant who had under his care about 250 male patients, and a nurse with an equal number of women. The night work was managed in this way: the patients were divided into three great classes, viz., (1) the sick in the sick ward; (2) the acute, suicidal, epileptic, dangerous, destructive, noisy, or untidy, locked up in single rooms; (3) the quiet, tidy chronics in dormitories.

The night watch had his headquarters in the sick ward, which contained fifteen beds, and was supposed to attend to the wants of the sick in the intervals between his rounds. He was understood to visit the other 200 or 230 patients in their single rooms and dormitories every hour. As it took about three quarters of an hour to walk round these single rooms and dormitories, it will be evident that he had but little time for sleeping, or for attempting anything in the way of nursing for any of the patients under his care. If, occasionally, a suicide occurred or an epileptic was smothered—well, we all know that accidents *will* happen sometimes.

I take it that the kind of arrangement above described no longer exists in any asylum. All have night nurses or attendants to take care of the sick in the hospitals, and in all our asylums the recent and acute cases, suicidal patients, and epileptics are under continuous supervision at night.

Some of us, perhaps, go a step further, and place also in dormitories, under supervision, all untidy, destructive, noisy, or excited patients, and those with faulty habits of any kind. This arrangement, advocated by Drs. Elkins and Middlemass at the annual meeting of the Association two years ago, and so completely carried out at the Sunderland Asylum, constitutes in my opinion one of the most important advances yet made in the care of the insane at night, and I can corroborate every word said in its favour. At Inverness, by placing untidy and troublesome patients under supervision in dormitories, the number of wet beds has been reduced from twenty to thirty per night to the vanishing point, and a mattress drying chamber, which had been in existence for many years, has been done away with. And not only this, but there are dements in the asylum who formerly in their single rooms were noisy all night and disturbed their neighbours, and who now sleep all night under supervision and are quiet, decent members of the

ward. Not only are they tidy, comfortable, and restful at night, but they are better behaved, quieter, and more manageable during the day.

Notwithstanding these arrangements for the care of the sick, recent and acute, suicidal, epileptic, and troublesome patients, it cannot yet be said that sufficient has been done, and that the insane are as well looked after at night as need be.

I would submit—

1st. That the night nursing of patients suffering from serious bodily illness is not what it should be.

2nd. That many patients need no night supervision, and could with advantage be relieved of it.

3rd. That the supervision of the night staff is insufficient.

As to No. 1. Let us consider the case of these sick people, say in the female ward. During the day there are probably two or three nurses, more than likely trained nurses, looking after, say, twenty beds. The medical officers visit the wards three or four times. The matron, probably a trained nurse, is constantly in and out. At night, on the other hand, for ten or twelve hours there is no medical visit, no matron's visit, and the same twenty patients are left in charge of one half-trained asylum nurse, or perhaps even a probationer.

In the case of the male sick ward the contrast between the day and night nursing is still more marked. During the day the patients probably are, as at Inverness, under the care of trained female nurses, and at night, when the guidance and direction of the higher officials are withdrawn, one ordinary untrained male attendant takes their place.

Such an arrangement cannot be regarded as satisfactory. As one visits the sick wards for the last time at night, one cannot feel confident that any particularly serious cases will be as well nursed at night as they were during the day. The fear is bound to come up that any benefit resulting from skilled attention during the day is more than likely to be lost at night.

The remedy, of course, is to have women trained in sick nursing in charge of the patients in the sick wards—male as well as female—at night, and this we are endeavouring to arrange at Inverness.

2nd. Unnecessary night supervision. It has been the rule at Inverness, as at most asylums, that every patient is to be

visited by the night attendant at stated intervals. At Inverness this is done every hour. The attendant or nurse walks through the dormitories, opens the door of each single room, and in fact sees every patient ten or eleven times every night. It appears to me that there is too much of this, and that these frequent visits to dormitories and single rooms are no longer necessary now that all anxious and troublesome cases have been picked out of them and concentrated in observation dormitories.

The patients who sleep in ordinary dormitories and single rooms now, are chronic cases of mania in their quiet moods—cases of delusional insanity or dementia. Many of them are quiet and trustworthy, and are allowed a great deal of liberty by day. They sleep soundly as a rule, and it seems absurd to suppose that they require to be looked at every hour of the long night.

We are therefore selecting all these quiet and trustworthy patients and placing them in dormitories and single rooms, in which they will be exempt from night supervision. The doors of these rooms open with ordinary handles and are not locked, and the patients have control of the electric light. There is a bell by which a night attendant can be summoned in a case of emergency, or one of the patients can go for him.

Other dormitories occupied by patients not so trustworthy are visited by an attendant or nurse, but not so frequently as was formerly the case.

I need hardly say that there are no attendants sleeping in patients' dormitories, although only a few years ago this was the rule. One could hardly conceive of a worse arrangement both for patients and attendants.

Nor have we at Inverness attendants' rooms adjoining patients' dormitories and opening from them—a common and objectionable arrangement. The patients and attendant disturb each other and interfere with one another's rest. It is not fair to an attendant, who has already done his day's work, to expect him to exercise supervision over a dormitory at night, or to attend to the patients in any way. A tired attendant, wakened out of a sound sleep, is apt to be cross and irritable and to use summary measures in dealing with the disturber of his rest. Then, again, I think the fact that an attendant occupies a room adjoining a dormitory is likely to give a false sense of security. If he should be a

sound sleeper a patient might murder another in the dormitory without his knowing anything about it.

3rd. The insufficiency of the supervision of the night staff. When we increase the night staff in an asylum of 600 patients from two to ten or twelve, the question of the supervision of this staff forces itself upon us.

Take, for example, the case of the sick patients in hospital. During the day the nurses in charge of these patients are constantly under the eye of the higher officials, and we know that in order to obtain efficient nursing this is absolutely necessary. Why should it not be thought necessary at night also? Yet during the night these patients are left in the sole charge of a comparatively inexperienced and untrained nurse or attendant for eight or ten hours.

Or consider the patients in the observation dormitories. Here we concentrate all the most troublesome and anxious cases in the asylum. During the day they are most vigilantly looked after. They are in wards where the staff is numerically strong and particularly trustworthy. The medical officers are careful to pay these wards special attention. They have experienced and careful charge attendants or nurses. The head attendant or matron keeps a strict eye upon them. But at night these patients are gathered together and twenty or thirty of them are placed in a dormitory under the care of one ordinary attendant or nurse. During the day one attendant or nurse to five or six such patients would not seem an extravagant proportion. For ten or twelve hours they are seen neither by the medical officer nor by any of the higher officials, and the attendant in charge of them is left with practically a free hand. How do we know that he does his duty? How does he spend his time when he has reason to believe that the coast is clear and the doctor has gone to bed? How does he deal with a restless patient who is inclined to get up and walk about the dormitory? Does he deal gently with him and endeavour to soothe him to sleep, or does he give him a hammering and a promise to repeat the dose if he is not speedily quiet? Will he get a hot-water bottle for a man who cannot sleep on account of cold feet, and a glass of milk and a biscuit for one who feels hungry?

No doubt there are exceptional men and women, kind,

good-hearted individuals, who take a real interest in their patients, and will be kind to them and will attend to the little niceties of nursing, which mean so much to them; but I fear that if we expect the general run of ordinary asylum attendants and nurses to do so we shall be disappointed.

Supervision is no less necessary in the case of the attendant or nurse on patrol duty. He is probably just an ordinary attendant, and he has thrust upon him a responsibility which we should not think of asking him to bear during the day. If he occasionally fails in his duty we cannot be surprised. In a few years' experience I have known a night attendant deliberately lie down to sleep night after night, having bribed a patient by tobacco to remain awake and to call him at a stated hour. The drowsiness of the patient during the day led to the discovery of this plan. An attendant has been found asleep who had taken bedclothes off the patients wherewith to make himself comfortable. It has been discovered that a night attendant on finding a patient's bed wet early in the night was in the habit of leaving it unchanged until the morning, in order to save himself trouble and to keep down the number of wet beds recorded in the report book. Another attendant has been known to make a quiet working patient get up and clean the room and change the bedclothes of an untidy patient, while the attendant looked on and smoked his pipe. Another has been known to remove the bedclothes from the room of a patient who was excited and likely to be destructive, leaving the patient without covering. Repeatedly it has come to my knowledge that night attendants have been harsh and even cruel to the patients under their care, and they have been dismissed for it. An occasional walk round the dormitories and single rooms in the middle of the night has been to me very instructive. The agility shown by patients, who were in the habit of being raised regularly, in jumping out of bed and making for the chamber utensil almost before the door could be opened, bears eloquent testimony to the rigid and stern discipline to which they have been accustomed.

I would plead, therefore, for the really effective supervision of the night staff.

The practical question is what form of supervision should be employed.

The mechanical contrivance known as the "tell-tale clock,"

in universal use in England and unused in Scotland, so far as I am aware, may be dismissed in a word as an interesting and ingenious toy. I do not suppose that there are many who use them who have faith in their efficacy. It is hard to see what information can be obtained from the record of a tell-tale clock, further than that an attendant was in a certain place in the asylum at a certain hour, and that when there he devoted a certain amount of attention to the clock. Without further information, showing what attention he gave to the patients, I do not know that the knowledge regarding his movements is of any particular value. He may cuff the ears of a restless patient, but the tell-tale clock looking on is reticent on the subject. Tell-tale clocks are a bad substitute for effective supervision of the night staff. Let us have this effective supervision and such contrivances will disappear as being out of date and no longer required. Not long ago, in a Scottish asylum, a patient was assaulted by attendants during the night and died from the effects. Had there been a tell-tale clock in the vicinity it would neither have prevented nor recorded this occurrence, but with effective night supervision it could not have taken place.

Another form of supervision is that by a head night nurse and head night attendant. It is, I think, common experience, that head attendants or head nurses, whether for day or night duty, when drawn from the ranks of the asylum attendants and nurses are not satisfactory. The ordinary asylum attendant and nurse are accustomed to work under the eye of a superior, and when this is withdrawn, as when they are on night duty, they with few exceptions fail in their duty. I do not think they can be depended upon to report one another for breaches of regulations. My experience, at all events, is that asylum attendants and nurses will screen one another at all hazards, and I have even known them to lie freely in defence of one of their number who had committed a fault, even though a patient had thereby suffered injury. I would not trust a head night attendant or nurse drawn from an asylum staff to report, for instance, that a nurse or attendant in charge of an observation dormitory had been found asleep. There are, of course, noble exceptions, but I am speaking of these officials as a class.

The solution of the difficulty is to be found in taking another

step towards the general hospital model and in having ladies, trained in sick nursing, as superintendents of night nurses and attendants. In fact nothing else will do when we have women as night nurses on the male side of the asylum. One such night superintendent would be sufficient for an asylum of say 600 or 700 patients. Her particular function will be the supervision and direction of the nursing of the sick, male and female, in the sick wards, but she will in addition pay several visits to the observation dormitories male and female, and will, perhaps, twice during the night, visit with the attendants and nurses on patrol duty all the dormitories and single rooms in which are patients requiring night attendance. When going on duty she will receive from the medical officers directions regarding any special cases, male and female, and she will leave a written report regarding those cases for their inspection. She will be, in fact, responsible for the care and supervision of all the patients during the night. The chief points are :

1st. That the night superintendent shall be a lady trained in sick nursing.

2nd. That she shall receive her instructions from the medical officers, and be subordinate to them only. She should be on an equality with the asylum matron and head attendant, and should, of course, have her rooms and table in accordance with her position.

The only asylum, so far as I know, where an arrangement such as this has passed beyond the experimental stage is at Larbert, and I have been told by Dr. Robertson that it works admirably, and that the night nursing in his asylum has been immensely improved since its adoption. I trust we shall be able to say the same at Inverness.

To sum up, then, the arrangements which we consider necessary for the proper care and supervision of the insane at night, and which we are endeavouring to carry out, are—

1. The sick, male and female, nursed by women trained in sick nursing.

2. The recent, acute, epileptic, suicidal, excited, noisy or troublesome in dormitories under constant supervision.

3. Those requiring some, but not continuous, supervision in ordinary dormitories which are visited periodically.

4. Quiet, harmless, trustworthy patients in dormitories and single rooms with open doors, without attendants' inspection.

5. A lady, a trained nurse, as night superintendent for the whole asylum.

Lantern Demonstration of Gross Lesions of the Cerebrum. By JOSEPH SHAW BOLTON, M.D., London County Asylum, Claybury.

(*Abstract.*)

I. THE GROSS LESIONS OF MENTAL DISEASE.

THIS demonstration was a further report on the subject laid before the Association at the meeting at Claybury in February last, viz., the morbid changes occurring in the brain and other intra-cranial contents in amentia and dementia. In a paper read before the Royal Society in the spring of 1900, and subsequently published in the *Philosophical Transactions*, it was stated, as the result of a systematic micrometric examination of the visuo-sensory (primary visual) and visuo-psychic (lower associational) regions of the cerebral cortex, that the depth of the pyramidal layer of nerve-cells varies with the amentia or dementia existing in the patient. At the meeting of the Association referred to it was further shown, from an analysis, clinical and pathological, of 121 cases of insanity which appeared consecutively in the post-mortem room at Claybury, that the morbid conditions inside the skull-cap in insanity, viz., abnormalities in the dura mater, the pia arachnoid, the ependyma and intra-cranial fluid, etc., are the accompaniments of and vary in degree with dementia alone, and are independent of the duration of the mental disease. Since that date the pre-frontal (higher associational) region has been systematically examined in nineteen cases, viz., normal persons and normal aments (infants), and cases of amentia, of chronic and recurrent insanity without appreciable dementia, and of dementia, and the results obtained form the subject of the present demonstration. A paper on the whole subject will shortly be published in the *Archives* of the Claybury Laboratory.

In the table (Fig. 1) is given a summary of the results,

already published, of micrometric examination of the primary visual and lower associational (visuo-psychic) regions of six brains, to show the condition of the pyramidal layer of nerve-cells in normal amentia (infants) and in dementia. The table needs no detailed description in this abstract, but the layers marked out in it are as follows :

1. In the first half (reading from above downwards)—

(1) Superficial layer of nerve-fibres.

(2) Layer of pyramidal cells.

(3*a*) Outer layer of granules.

(3*b*) Layer of nerve-fibres or line of Gennari, containing solitary cells of Meynert.

(3*c*) Inner layer of granules.

(4) Layer of nerve-fibres or inner line of Baillarger, containing solitary cells of Meynert.

(5) Layer of polymorphic cells.

At the periphery of the visual area layers 3*a*, 3*b*, and 3*c* run into one, namely, layer 3 in the second half of the table. In the first brain illustrated, that of anophthalmos, layers 3*a* and 3*b* are not subdivided, as the granules in the former are too scanty for accurate measurement.

The first half of the table, viz., the primary visual area of the cortex, shows that the layer 3*b* is markedly decreased in cases of long-standing blindness, and that there is a decrease, independent of blindness, in the depth of the pyramidal layer of nerve-cells in both the aments and the dements.

2. In the second half of the table (the visuo-psychic region of the cortex) the pyramidal layer in the dements is decreased as before ; but in the aments it is, as might be expected *a priori*, much more decreased, and this also varies with the age of the case.

In the other tables (Figs. 2 and 3) are shown the results of micrometric examination of the pre-frontal region in a series of the brains previously referred to. The portion of the cortex made use of was that at the extreme pole of the hemisphere, across the transverse fissure of Wernicke, and included a portion of the orbital surface of the frontal lobe. The lamination is identical, as regards cell layers, with that shown in the second half of the first table, Fig. 1.

In Fig. 2 is shown a summary of measurements, in millimetres, of one of the cases (the last but one in Fig. 3). This is

introduced to show the regions measured and the general system adopted.(1) The subdivisions in Figs. 1 and 3 are in each case derived from general averages similar to those shown in Fig. 2.

In Fig. 3 it can be at once seen that the pyramidal layer of nerve-cells is the last layer to develop in the fœtus and infant, and also that it is decreased in dementia, the other layers also becoming decreased as the dementia is more pronounced. The pyramidal layer is also decreased in imbecility, and markedly so in severe imbecility or idiocy; but it is an important fact that this layer is also decreased in chronic and recurrent insanity without appreciable dementia. In other words, *in insanity without dementia a gross lesion exists, which is of the same nature as and only differs in degree from that existing in imbecility.* Lest it should be thought that this decrease is merely due to a degree of dementia which is clinically unrecognisable, it may be stated (1) that the decrease is marked, in some cases as marked even as that occurring in severe dementia; and (2) that both the general histological and the micrometric appearances are infantile in type and quite different from those of dementia. Hence in the idiot, the imbecile, and the non-demented lunatic the lesion consists of an arrest of development, the micrometric characteristics resembling those of infants; and it is highly probable that in dementia a retrograde wasting occurs in the reverse order, more or less, to that of the normal development of the cortex. It may be, also, that the relatively slight differences which exist in the depths of the cortical layers in normal brains are associated with differences in the mental power of the individuals to whom they belong.

This part of the demonstration was completed by an exhibition of lantern plates of hemispheres, showing various degrees of non-development and of wasting.

II. Gross Lesions of the Cerebrum not necessarily associated with Mental Disease.

(1) Large abscess of the left frontal lobe in a married woman 20 years of age, the result of a left pyonephrosis following blocking of the upper end of the ureter by a calculus. Four days after her confinement the patient developed sym-

ptoms diagnosed "puerperal melancholia." Some weeks later she was admitted to Claybury in a stuporose condition, and died in three days. The abscess was a sufficient explanation of the symptoms.

(2) Right capsular hæmorrhage in a chronic female lunatic æt. 26 years. Death occurred thirty hours after the onset of marked left hemiplegia. A generally adherent pericardium and extreme morbus cordis were found at the autopsy, together with advanced atheroma of the aorta.

(3) Subdural hæmorrhage in a non-demented male æt. 70 years. A cake of blood was found lying on the right motor region, and according to the history pressure symptoms had existed for from four to five months.

(4 and 5) Embolism of the right internal carotid artery beyond the origin of the ophthalmic branch. A chronic delusional male æt. 42. Atheroma of large vessels. Four days before death the patient showed nearly complete paralysis of the left arm, conjugate deviation of the head, neck, and eyes to the right, and apparent slight ptosis of the right eyelid. The knee-jerks were increased, and there was patellar clonus. The breathing was Cheyne-Stokes. The patient resisted attempts to open his eyes. Both discs were normal.

(6 and 7) Thrombosis of the greater part of the left anterior and middle cerebral arteries. Male æt. 69 years. Right-sided paresis ten weeks before death, complete right hemiplegia five weeks before death and gross mental impairment. Extreme calcareous degeneration of the cerebral arteries.

(8 and 9) Embolism of right cerebral artery of ten years' duration. Married woman æt. 49 years. Epileptiform seizures and emotional symptoms since the lesion. Partial paresis of the left arm and leg. No dementia. Chronic mitral disease.

(10 and 11) An exactly similar case in a woman æt. 59 years. It was, however, less severe, and the patient earned her living as a laundress in the interval between her attacks of insanity. Before death she was in the asylum for a month.

(12) Recent red thrombosis of branches of the left posterior cerebral artery. Female æt. 65 years. Alcoholic dementia. Atheroma of cerebral arteries. Older thromboses of right motor area with left epileptiform seizures.

(13) Old cyst in left temporo-sphenoidal lobe. Male æt. 32 years. Advanced general paralysis. Vegetative endocarditis.

(14) Aneurysmal dilatations of basal arteries and gumma of right crus cerebri. Female æt. 44 years. Left-sided seizure two days before death, and extreme optic neuritis most marked in the left eye. There was wasting of the olfactory nerves, also most marked on the left side.

(15) Sarcoma of the dura mater pressing on the right prefrontal region. Female æt. 52 years. "Epileptic" dement. Right-sided hemiplegia for ten days before death. There was a recent thrombosis of the right middle cerebral artery beyond the origin of the first branch. The tumour was not suspected during life.

(16) Cyst of right motor area. Female æt. 37 years. Emotional and incoherent, with delusions of grandeur. Left-sided seizures.

(17) Secondary scirrhus of the dura mater. Female æt. 42 years. Chronic delusional case without dementia. Scirrhus of breast. Secondary growths in the liver, in the left femur causing "spontaneous fracture," and in the dura mater causing left-sided seizures.

(18) Sarcoma of the left optic thalamus. Male æt. 56 years. Dazed, lost, and restless. Dirty, but not wet. Pupils normal. Seizure a week before death.

(19) "Neurogliosis" of brain. Male æt. 18 years. Epileptic from four to five years of age, and in an asylum since thirteen years of age. An imbecile with very little intelligence. Four hundred and six fits during the last ten days of life, of which 168 occurred on the fifth day before death.

Discussion

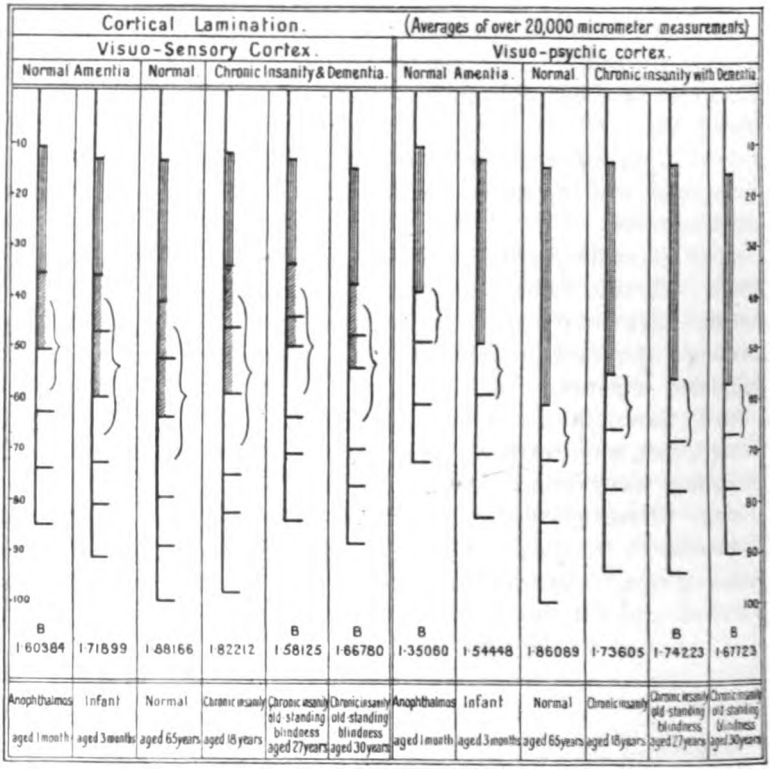
At the Annual Meeting of the Medico-Psychological Association, Cork, 1901.

The President.—We are all exceedingly obliged to Dr. Bolton for his able, exhaustive, and interesting address. The photographs he has shown must have taken an enormous amount of time and trouble in preparation, and his demonstration teemed with detail.

Dr. Clouston.—We have never heard an address that contained a greater amount of valuable scientific information, and must express our appreciation of Dr. Bolton's results. The pathological measurement of the cortex is the very earliest method of investigation that I can remember. I was very much surprised by his new results with his own methods in reference to the gradation of the pyramidal layers in relation to mental condition; but I incline to disagree with Dr. Bolton's opinion that chronic delusional cases are not demented, believing as I do that they often suffer from a very appreciable amount of mental enfeeblement.

Dr. Bolton.—I am afraid that I have been rather misunderstood by Dr. Clouston with reference to the question of dementia in chronic delusional cases, probably owing to the fact that I have this morning only dealt with the second half of my research. In the demonstration on the morbid changes in dementia, which I gave

FIG. 1.



The subdivisions from above downwards refer to the cell layers described on p. 730. In the first half of the table, layers 3 *a*, 3 *b*, and 3 *c* are bracketed together, and are equivalent to layer 3 in the second half, which has a bracket opposite to it. For further details see *Phil. Trans.*, vol. cxciii, series B, 1900.

FIG. 2.

No XIII

CASE OF GROSS DEMENTIA

Measurements of Prefrontal Cortex in m.m.

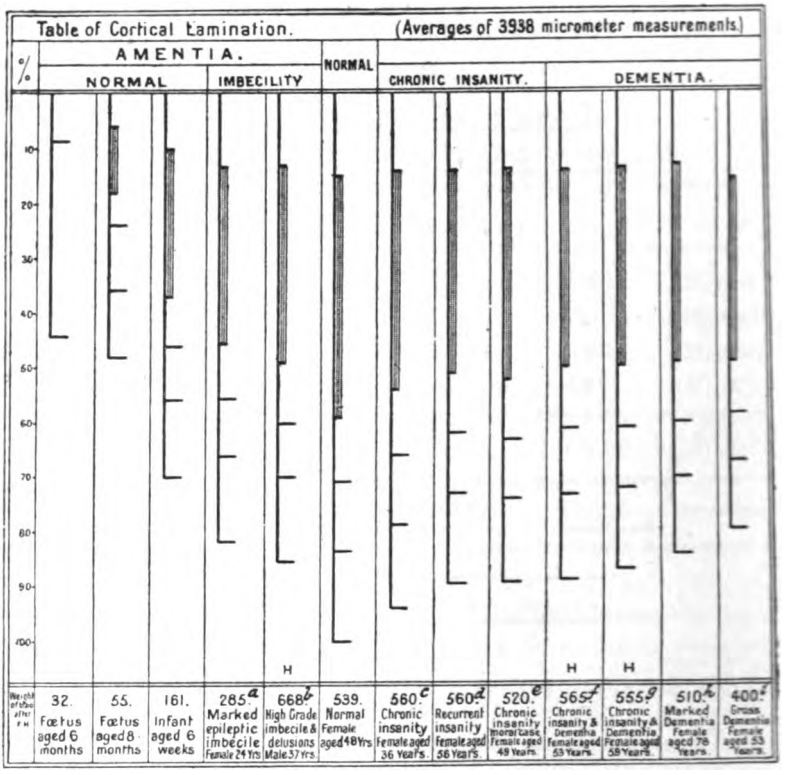
Region	I Sup!	II Pyramids.	III Granules.	IV Baillarger	V Polymorphs.
Side (32)	· 21911	· 75767	· 22878	· 15835	· 22924
Apex (24)	· 14730	· 74325	· 23507	· 32590	· 36518
Bottom (12)	· 40876	· 44436	· 13380	· 06628	· 12152
Flat (12)	· 17799	· 80524	· 25409	· 23568	· 30442
Total (80)	· 95316	2 · 75052	· 85174	· 78621	1·02036
Gen! Average	· 23829	· 68763	· 21293	· 19655	· 25509

·92592 m.m ..... + ... ·66457 m.m .

Total General Average = 1·59049 m.m

Number of Measurements (80 × 5) = 400

FIG. 3.



Weights before hardening in formol: *a*, 265; *b*, 520; *c*, 498; *d*, 495; *e*, 488; *f*, 503; *g*, 445; *h*, 440; *i*, 347.

before the Association in February last, I made, on pathological grounds, a grouping of 122 cases of insanity into five cases, namely, (1) cases without appreciable dementia, (2) cases with barely appreciable dementia, (3) cases of chronic insanity with obvious dementia, (4) cases of dementia which still exhibited symptoms of insanity, (5) cases of gross dementia. Certain of the chronic delusional cases were placed in Group II., and it was to these cases that I referred during the present demonstration as chronic delusional cases without dementia. A large number of delusional cases were, however, placed under Classes III and IV.

(1) For further details see *Phil. Trans.*, Series B, vol. cxciii, pp. 165-222.

Physical and Moral Insensibility in the Criminal. By W. NORWOOD EAST, M.B.Lond., M.R.C.S.Eng., L.R.C.P. Lond., Deputy Medical Officer, H.M. Convict Prison, Portland.

THESE observations, carried out at H.M. Convict Prison, Portland, were undertaken to ascertain whether the moral insensibility of the criminal, which is so prominent a psychical characteristic, had any physical parallel.

For this purpose one hundred convicts have been examined as to the proficiency of their special senses. The ages of these men varied from eighteen to sixty-six years; they were undergoing various terms of imprisonment, from three years up to life sentences; some were first offenders, others in addition to numerous short sentences had served from one to four separate terms of penal servitude. The crimes included burglary, theft robbery, receiving stolen goods, forgery, fraud, coining, blackmail, murder, manslaughter, wounding with intent to murder or cause bodily harm, procuring abortion, assault, rape, carnal knowledge, unnatural offences, bigamy, arson, and perjury.

To obtain a standard with which to compare the criminal sensibility, ten similar examinations were carried out at Guy's Hospital on senior men, six of whom were holding or had held house appointments; one was qualified but had held no house appointment, and three were unqualified. To these gentlemen my best thanks are due.

Vision was tested by the usual test-types of Snellen; colour vision by means of Holmgren's wools; hearing, after removing any cerumen, by taking the mean distance at which a lever watch was heard on receding from and approaching each ear separately. The solutions used for testing olfactory sensibility were

varying strengths of oil of cloves in "Lucca oil," the actual strengths used being 1 in 200, 1 in 100, 1 in 80, 1 in 60, 1 in 40, 1 in 20, and 1 in 10; the bottles containing the solutions all being of the same size and containing the same quantity of fluid, thus ensuring equal fluid surfaces and an equal depth from the mouth of the bottle. Beginning with the weakest solution, the prisoner in whom this aroused no sensation was tested with gradually increasing strengths till olfactory sensation appeared; by a rearrangement of the bottles, and by getting the prisoner to arrange them in strength sequence, any attempt at deception or carelessness was discovered, and no further observation made on that case. The solutions used for testing gustatory sensibility were composed of aqueous solutions of glycerine, the strengths being 5, 10, 20, 40, 60, and 80 minims of glycerine in an ounce of water; sweet tastes were chosen for convenience, being easily analysed and best appreciated on the tip of the tongue. As in testing smell, the weakest solution was first used. A glass rod was dipped into a given solution up to a certain mark, and then placed on the tip of the tongue; if no sensation was elicited the rod was carefully cleaned and dipped into the next strongest solution; if no result was obtained the next strongest solution was tried, and so on till sensation was aroused. Similar precautions were taken against any attempt at deception or carelessness as in testing for olfactory sensibility. Tactile sensibility was examined by Sieveking's æsthesiometer, the centre of the forearm being the part chosen. The tip of the tongue was also examined, but the instrument not being graduated finer than the tenth of an inch the results were unsatisfactory; inasmuch as at times the minimum could not be determined nor the small differences occurring at this part of the body be gauged. These results have therefore been neglected.

No observations were carried out to estimate vaso-motor sensibility or painful or thermic sensations, but in passing it may be remarked that one has frequently been surprised to find that on going into a cell to examine a man, with the solution bottles and case of Holmgren's wools, his face has become suffused with an unmistakable blush. It has been stated that the criminal blushes with difficulty; in carrying out these observations one has noticed it so frequently that this statement cannot be taken unreservedly. It must be remem-

bered that the examination has taken the prisoner by surprise, he is at once on unfamiliar ground; this would appear to be the reason for the discrepancy, for on other matters—his crime, habits, companions, and the like—one is obliged to agree with those who consider it to be of rare occurrence.

Although no direct observations have been made on painful sensations, sensibility to pain is probably diminished. In the extraction of teeth one has frequently been struck by the absence of pain. Again, a prisoner applied for treatment on account of a swollen big toe, which on examination proved to be due to a fracture. On inquiry a history of an accident a fortnight before decided its origin; no complaint had been previously made, and he had been performing hard outdoor labour with this injury. A homicidal case requested to have an ingrowing toenail evulsed without an anæsthetic; a solution of eucaine was, however, first injected.

As an example of the diminished sensibility to pain, the frequency with which tattooing is found in criminals has been brought forward as supporting evidence. It would scarcely appear, however, to be conclusive; of 500 convicts examined for this purpose, 216, or 43 per cent., were tattooed—probably a less percentage than found in the army or navy; and many people other than criminals whom I have questioned say that the pain was not excessive: further, there are many inducements for criminals to be tattooed, the commonest of which is undoubtedly vanity.

In a careful analysis of the situations and designs found tattooed on one hundred prisoners, the hands and forearms—that is, the parts exposed in their everyday life and labour—were the most frequent sites. It must be regarded as a persistent adjunct to personal adornment, and would appear to have its parallel in the tight shoes and tighter corsets affected by some ladies. Other causes and inducements for the custom appear to be commemorative, professional, licentious, rarely religious or erotic. A man imprisoned for rape had designs of eight female figures on various parts of his body—an unnecessary number of sexual and amorous reminders. Still another powerful inducement is an effort to avoid identification by the police. A professional criminal informed me that it was his practice to have his designs altered immediately on being discharged from prison, and this was true, as shown by a

careful inspection revealing evidence of past designs worked into new patterns.

It will at once be seen that these observations have not been conducted in the exhaustive manner scientifically desirable. Vision has only been tested with the types, no ophthalmoscopic examination was made. Hearing has only been tested with the watch; it was not possible, therefore, to determine what part of the auditory apparatus was at fault. Again, taste has only been tested by sweets; sour, acid, and bitter substances having been disregarded. This incompleteness, whilst being unsatisfactory has appeared unavoidable. In examinations such as these much must be left to the willingness and judgment of the subject, and it seemed that more valuable general results would be obtained by the method employed than if detailed results were sought for by more elaborate inquiries, which would of necessity be so prolonged that most criminals (in whom deficient mental inhibition is very marked) would easily tire, and their attention wander. One did not consider that their interest would be aroused for a prolonged period, and unless this could be guaranteed only careless answers would be obtained. This actually proved true; generally the subject was interested, and therefore attentive. In a few cases towards the end of the examination the attention began to wander, and the results were therefore discarded.

The examination concluded, the criminal history of the subject was considered, the salient points abstracted, the physical results added, and the whole collected as an appendix for reference.

In compiling the tables the figures were obtained in the following manner:

Vision	$\frac{6}{6}$	Snellen's	test-type	was taken	as 1
,,	$\frac{6}{8}$	,,	,,	,,	2
,,	$\frac{6}{12}$	,,	,,	,,	3
,,	$\frac{6}{18}$	,,	,,	,,	4
,,	$\frac{6}{24}$	,,	,,	,,	5
,,	$\frac{6}{36}$	,,	,,	,,	6
,,	$\frac{6}{60}$	,,	,,	,,	7

If $\frac{6}{60}$ could not be seen (Cases II, 11 and 40; III, 3) 8 was taken to represent the vision, both eyes being tested separately: if one eye was lost (II, 2, and III, 9) it did not seem justifiable

to consider that its vision had been equal to its fellow; it did not, therefore, appear when working out the averages.

Hearing was taken in inches. If the watch could not be heard at all (I, 3, and III, 12) it was considered equal to 0; if at one inch, as equal to 1; if at two inches as 2, and so on.

Smell	1	in	200	was taken as	1
„	„	„	100	„ „	2
„	„	„	80	„ „	3
„	„	„	60	„ „	4
„	„	„	40	„ „	5
„	„	„	20	„ „	6
„	„	„	10	„ „	7

If no smell could be elicited (II, 47; III, 2, 4, 5, 29, 33) it was taken as 8.

Taste	5	in	480	was taken as	1
„	10	„	„	„	2
„	20	„	„	„	3
„	40	„	„	„	4
„	60	„	„	„	5
„	80	„	„	„	6

If no taste could be elicited (II, 10, 47; III, 33) it was taken as 7.

Tactile sensibility is given in inches.

There was no case of colour-blindness.

A consideration of the above will show that in the columns of the tables the more acute the visual, olfactory, gustatory, and tactile sensibility, the lower the figure, but the more acute the auditory sensibility the higher the figure. The last columns in the tables were obtained by adding up the position of each sense. The lower the figure in this column, therefore, the more acute the senses considered collectively of that class.

The sane criminal belongs to one of three classes—accidental, occasional, or professional. Cases I, 1 to 13, are examples of the first; II, 1 to 52, of the second; and III, 1 to 35, of the third.

The accidental criminal is the realisation of the potential criminal, his moral sensibility need not be far removed from the normal; as the name implies, he commits crime accidentally. The crime and its punishment is the single criminal experience in his life history, incited by passion or great mental or emotional stress, sometimes in addition by alcohol;

it remains separated from his past life which has been honest, and his future which will continue so. It may be compared to an acute illness from which he may entirely recover, leaving him none the worse for his experience. Of the thirteen cases of accidental criminals ten were committed for murder, manslaughter, or wounding—crimes committed suddenly in anger, and which are easily seen to at once belong to this class; one case of arson (I, 13), committed by an extremely violent-tempered man acting under an acute but false sense of injustice; one of forgery, and one of theft.

These last two cases require some explanation, as they do not at first sight appear to fall into this category. Case I, 8, was an industrious, sober, well-educated man, having a wife and family dependent upon him, and up to the age of fifty-five he had held a responsible position with credit; he then got into debt, and being continually harassed by his creditors, fearing he would lose his post and means of support for his wife and family by the exposure, in a weak moment he forged a cheque, trusting by this means to tide over his difficulties till he could repay all. This man felt his position in prison acutely, his instincts were not antisocial, and a close acquaintance with the man left one no room to doubt that the memory of the crime, more than its legal punishment, would always be before him and prevent him from again offending.

Case I, 10, was a well-educated, sober, industrious man of refined tastes and pursuits, also holding a responsible position. After having been married a short time his wife became a confirmed invalid. This threw a lot of additional expense upon him, and as a consequence he got into debt. To pay off these debts he stole his employer's money, retaining some to speculate with in the hope of being able to refund. His employers begged that his sentence might be made as light as possible, thus proving their high opinion of him. Whilst undergoing his sentence he was an exemplary prisoner, at all times behaved as a gentleman, and on the completion of his sentence sought advice as to the medical suitability of a certain colony where he intended to start life afresh. One could not doubt, knowing the man, that he was sincere, and that thenceforward he would never again become the inmate of a prison.

The occasional criminal may commit one or several crimes. His crime, be it the first one in his career, is not so antagonistic

to his moral sensibility as is the case in the accidental; his moral perceptions are less acute, his moral energy, his power of mental inhibition, and of selective action weaker, and he may again become an offender from slight causes—difficulty in obtaining work, slight temptations, and the like. He may commit many crimes, but if he will work when work can be obtained he has been classed as an occasional and not a professional, irrespective of the number of his sentences. All crimes occurring in the 100 cases under consideration are included in this group except coining, of which there was only one case (III, 28), a professional criminal.

The professional criminal becomes classified as such when he has committed many crimes, and when from the rapidity with which one sentence follows upon another it is obvious no attempt at honest work has been made. No prisoner has been placed in this class without great care. In some cases the occasional becomes almost the professional, but if there is any evidence of an attempt at honest living he has not been placed in the latter class. The crimes include burglary, theft, receiving, coining, and one case of wounding by a professional thief (III, 32). Of all sane criminals moral sensibility is least developed in this class; generally they are apprenticed to crime from their early youth, and as the years pass on crime succeeds crime. Though looked down upon by other criminals they boast of their exploits and proficiency, they have no pity or compunction for their victims; without gratitude, truth, or affection; idle, malicious, surly, cunning, and egregiously conceited, their mental vision becomes obscured by an exalted *ego*; their actions, instead of producing self-degradation, are by their moral insensibility distorted into pride-producing achievements, elevating them above hard-working honesty. Not only in the matter of their crimes is this conceit shown. Whilst dilating on his skill as a thief a man told me that amongst his associates he was known all over Europe as "the Masher Thief,"—this from a man with a scarred, repulsive countenance, who had almost certainly never been out of England! To the professional criminal his crimes are in no way antagonistic to his deficient moral sensibility; his antisocial life, when not imprisoned, consists of crime upon crime. Prison appears to him as his normal environment—liberty and crime his occasional holiday.

One is forced, on a consideration of these three classes, to conclude that the accidental, occasional, and professional criminals represent three levels of moral sensibility, the accidental being the highest, the professional the lowest. It must, however, be remembered that the occasionals include more various crimes than either of the other classes; that the sexual offenders—cases of rape, carnal knowledge, and bestiality—cannot be said to have higher moral perceptions than the professionals. This will be referred to later, and it will be shown that their physical sensibility is not greater, but as a class one must consider the occasional more acute in his moral sensibility than the professional.

TABLE I.—*Special Sense Averages of Criminal Classes.*

Criminal class.	No. of cases	Vision.	Colour vision.	Hearing.	Smell.	Taste.	Touch.	Total showing position.
Accidental . . .	13	2·038	No colour-blindness	7·259	2·230	2·384	1·946	7
Occasional . . .	52	2·359	„	8·828	2·746	3·115	1·825	9
Professional . .	35	2·246	„	5·828	3·40	3·171	2·0	14

Table I represents the average physical sensibility of the cases examined, classified as accidentals, occasionals, and professionals. Remembering that the lower the figure the more acute the sense in each column except in hearing, which is the reverse, it will be seen that in each case the special sense of the accidental is more acute than of the professional. It has been shown that the moral sensibility of the former is also more acute; here, therefore, we have a definite parallel between the physical and moral sensibilities. The occasional class will be seen to lie midway between the accidentals and professionals as regards smell and taste, but have more acute touch and hearing, and less acute vision. Adding up the positions for each sense, the totals show that the accidental has the acutest physical sensibility, the occasional less, and the professional least. Treated as classes this is parallel to the above estimate of their moral sensibility.

TABLE II.—*Special Sense Averages of Educated and Non-educated Criminals.*

Educated or not.	No. of cases	Vision.	Colour vision.	Hearing.	Smell.	Taste.	Touch.	Total showing position.
Educated . . .	14	2·895	No colour-blindness	8·098	2·571	2·857	1·970	7
Non-educated . .	86	2·151	„	6·908	2·965	3·069	1·890	8

Table II shows that the difference between the educated and uneducated criminal is slight. In hearing, smell, and taste the educated has the advantage; in vision and touch the non-educated. The educated include two accidentals, ten occasionals, and two professionals (I, 8, 10; II, 5, 6, 11, 16, 21, 33, 38, 47, 49, 52; III, 14, 23). It is interesting to note that the greater number of educated criminals are occasionals, not accidentals; in other words, that the educated man more frequently commits crime callously. No case has been considered educated who at the least does not reach the standard usually required of a clerk.

TABLE III.—*Special Sense Averages of Crime Groups.*

Crime group.	No. of cases	Vision.	Colour vision.	Hearing.	Smell.	Taste.	Touch.	Total.
I. Burglary, Robbery, Theft, Receiving .	57	2·219	No colour-blindness	6·964	3·157	3·099	1·949	17
II. Forgery, Fraud, Coining, Blackmail .	14	2.107	„	8·794	3·357	2·928	1·892	12
III. Homicide, Assault, Wounding .	29	2·172	„	9·116	2·310	2·578	1·958	10
IV. Rape, Carnal knowledge, Bestiality .	9	2·66	„	7·50	2·22	3·22	2·40	18
V. Bigamy, Arson, Perjury .	6	1·818	„	8·583	3·166	3·33	2·45	18

Table III classifies the cases under consideration into crime groups; as one case at times includes more than one crime, it appears in more than one group, hence the averages in this table are worked out from a total of 115.

GROUP I.—Burglary, robbery, theft, receiving, 57 cases, includes 34 professionals, 1 accidental, and 22 occasional criminals; the majority being men of deficient moral sensibility, *i. e.*, professionals, it will be anticipated that their physical sensibility will also be deficient. A glance at the last column of this table will show this to be the case, that practically the obtuseness of the special senses in this class is almost equal to that of Groups IV and V.

GROUP II.—Forgery, fraud, coining, and blackmail, 14 cases, is composed of 1 accidental, two professional criminals, and 11 occasional; compared with Group I they may be considered as cases of theft at a distance, having similar aims, but differing essentially in the manner of conducting the crime. One is not surprised to find that the type of man is distinct from the above and from all other criminals in that he almost always has more intelligence: of them 8, that is over 50 per cent., were educated; 7 (II, 5, 6, 7, 11, 21, 33, 38, 52), although occasionals, were of distinctly higher moral type than is usual in this class. From a knowledge of the men it is probable 5, 4 first offenders (II, 5, 6, 7; I, 8), and 1 (II, 38) who had been sentenced twice will not again commit crime. The last column shows that of the five crime groups their position is second.

GROUP III.—Homicide, wounding, assault, 29 cases, made up of 10 accidentals, 1 professional, and 18 occasionals,—usually passion crimes, often the result of provocation; the moral sensibility of the offender may approach the normal. The last column shows the physical sensibility in this group is the most acute of all the crime groups.

GROUP IV.—Rape, carnal knowledge, and bestiality, 9 cases; essentially men of low moral sensibility, of deficient mental inhibition, their physical sensibility is more obtuse than any of the above groups.

GROUP V.—Bigamy, arson, and perjury, a miscellaneous collection of 6 remaining cases; the bigamist can scarcely be considered to belong to a higher moral type than the sexual offender generally, it may be regarded as a refined sexual offence; it has been separated from Group IV as Group II

has been from Group I, as including a somewhat different type of man. The incendiaries were 3 : one (II, 23), a man of marked antisocial instincts, another (II, 47), a malicious but well-educated man, the third (I, 13), an accidental, a man of excessively violent temper. The perjurer (II, 43) was a man of decidedly low moral perceptions. The last column shows that the physical sensibility of this group corresponds with that of the sexual group.

From a consideration of this table also it is seen that, as in Table I, there exists a close relation between the physical and moral insensibility in the criminal.

TABLE IV.—*Special Sense Averages of Guy's Cases.*

Examination of ten medical friends at Guy's Hospital.

No. of cases.	Vision.	Colour vision.	Hearing.	Smell	Taste.	Touch.
10	1·15	No colour-blindness	17·6	1·4	1·15	0·66

Table IV is the result of the examination of ten medical friends at Guy's Hospital ; comparing the average in any of the columns in this table with that in any other table, the very striking fact is at once apparent that the acuteness of any of the special senses (save colour vision, in which no case of colour-blindness was found) is considerably greater. As it has been shown that between moral and physical sensibility a parallel exists, this result would have been anticipated.

SUMMARY.

1. The normal individual has more acute moral and physical sensibility than the criminal.

2. Considered as classes, the accidental, occasional, and professional criminal represent three degrees of moral insensibility.

3. Considered as classes, the accidental, occasional, and professional criminal represent three degrees of physical insensibility.

4. The difference between the moral insensibility of the accidental and occasional is greater than that between the occasional and professional.

5. The difference between the physical insensibility of the

accidental and occasional is less than that between the occasional and professional.

6. The parallel between the physical and moral insensibilities of the three classes, although definite, is not exact.

7. The influence of education on moral or physical insensibility appears to be unimportant.

8. Crimes against the person, commonly passion crimes, have least moral and physical insensibility.

9. Crimes against distant property, commonly intellect crimes, have more moral and physical insensibility.

10. Crimes against near property, sexual crimes, and the miscellaneous Group V in Table III have still more moral and physical insensibility.

11. The influence of age on moral and physical insensibility is negative.

12. Sensation is impaired in the criminal,—that is, the number of conscious elements are less than in the normal human adult; that is the number of perceptions possible to the criminal are less, and so the ideas of the criminal mind are less than in the mind of the normal human adult. A mind lacking in ideas is a mind presenting some enfeeblement; the evidence of this enfeeblement is most commonly expressed in the criminal by deficient moral sensibility.

Appendix of Cases.

I. *Accidental Criminals.*

Case 1.—Æt. 44, manslaughter. A poorly educated labourer inflicted, in a passion, such injuries upon his wife as caused death. Before conviction he fell from a scaffold, receiving head injuries and a compound fracture of the right leg; he states that before this accident his hearing was good. Vision: R. $\frac{6}{6}$, L. $\frac{6}{8}$; no colour-blindness; hearing: R. 1 inch, L. $\frac{1}{4}$ inch; smell: $\frac{1}{100}$; taste: $\frac{30}{480}$; touch: $2\frac{1}{10}$ inches.

Case 2.—Æt. 48, murder. A labourer of poor education, violent and alcoholic, killed in a passion a girl with whom he had been intimate. Vision: R., L. $\frac{6}{36}$; no colour-blindness; hearing: R. 1 inch, L. $\frac{1}{2}$ inch; smell: $\frac{1}{100}$; taste: $\frac{5}{480}$; touch: $2\frac{3}{10}$ inches.

Case 3.—Æt. 52, manslaughter. A man of violent temper killed a woman in a drunken brawl. Vision: R. $\frac{6}{12}$, L. $\frac{6}{9}$; no colour-blindness; hearing: *nil*; smell: $\frac{1}{100}$; taste: $\frac{30}{480}$; touch: $2\frac{5}{10}$ inches.

Case 4.—Æt. 40, wounding with intent to murder. An artisan, honest, sober, industrious, having respectable friends and associates, was deserted by his wife; he attacked in the street the man who he

supposed had ruined her, and attempted to kill him. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 14 inches; smell: $\frac{1}{80}$; taste: $\frac{20}{480}$; touch: $1\frac{6}{10}$ inches.

CASE 5.—Æt. 28, wounding with intent to cause grievous bodily harm. Honest, industrious, sober, being accused by his wife of being intimate with another woman, got into a passion and fired a revolver at her. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 6 inches; smell: $\frac{1}{80}$; taste: $\frac{20}{480}$; touch: $1\frac{5}{10}$ inches.

CASE 6.—Æt. 66, murder. A man of poor education, honest and industrious, killed a woman in a passion. Vision: R. $\frac{6}{18}$, L. $\frac{6}{6}$; no colour-blindness: hearing: R., L. 5 inches; smell: $\frac{1}{100}$; taste: $\frac{10}{480}$; touch: 2 inches.

CASE 7.—Æt. 38, shooting with intent to murder. A violent-tempered man, honest, sober, and industrious, attempted in a passion to kill another man. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 12 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $1\frac{7}{10}$ inches.

CASE 8.—Æt. 57, forgery. An industrious, well-educated, sober man, having respectable associates and friends; got into debt, being continually harassed for money he was afraid the fact would become known to his employers and cause him to lose his post; he committed forgery to try and tide over his difficulties. Vision: R., L. $\frac{6}{12}$; no colour-blindness; hearing: R., L. 6 inches; smell: $\frac{1}{40}$; taste: $\frac{20}{480}$; touch: $2\frac{5}{10}$ inches.

CASE 9.—Æt. 25, manslaughter. A man earning an honest living by laborious work fought with a man who had stolen from his barrow, as a result the man received fatal injuries. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 4 inches; smell: $\frac{1}{100}$; taste: $\frac{10}{480}$; touch: $2\frac{5}{10}$ inches.

CASE 10.—Æt. 40, theft. A man of superior education, sober, industrious, and of refined tastes, got into debt through obtaining comforts for an invalid wife; to relieve this he stole money from his employers and gambled with it to pay his debts and replace what he had stolen; being unsuccessful he was detected. Vision: R. $\frac{6}{6}$, L. $\frac{6}{18}$; no colour-blindness; hearing: R., L. 12 inches; smell: $\frac{1}{200}$; taste: $\frac{5}{480}$; touch: 1 inch.

CASE 11.—Æt. 40, wounding. An illiterate, honest, industrious miner wounded his housekeeper in a temper as she was persistently running up bills. Vision: R., L. $\frac{6}{6}$; no colour blindness; hearing: R., L. 12 inches; smell: $\frac{1}{200}$; taste: $\frac{20}{480}$; touch: $2\frac{2}{10}$ inches.

CASE 12.—Æt. 39, wounding. A violent-tempered man but honest and industrious, working as a weaver, attempted to injure his wife against whom he had a grievance. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 10 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $1\frac{5}{10}$ inches.

CASE 13.—Æt. 40, arson. An imperfectly educated plasterer, being dismissed from his employment and being a man of excessively violent temper, finding himself suddenly out of employment and considering himself unjustly treated, set fire to the building on which he had been

employed. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 12 inches; smell: $\frac{1}{100}$; taste: $\frac{5}{480}$; touch: 2 inches.

II. *Occasional Criminals.*

CASE 1.—Æt. 26, bigamy. Living apart from his wife, married another woman who was engaged in the same business as himself. Vision: R., L. $\frac{6}{18}$; no colour-blindness; hearing: R. 7 inches, L. 8 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: 3 inches.

CASE 2.—Æt. 39, bigamy. Living apart from his wife, married another woman; a quiet, well-behaved, hard-working man. Vision: R. eye lost, L. $\frac{6}{9}$; no colour-blindness; hearing: R., L. 14 inches; smell: $\frac{1}{80}$; taste: $\frac{40}{480}$; touch: $2\frac{2}{10}$ inches.

CASE 3.—Æt. 47, rape. A man of industrious but alcoholic habits criminally assaulted a girl. Vision: R., L. $\frac{6}{24}$; no colour-blindness; hearing: R. 4 inches, L. 6 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: 1 inch.

CASE 4.—Æt. 34, forgery. An imperfectly educated artisan got into debt through gambling and forged a cheque to meet his losses. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 20 inches; smell: $\frac{1}{10}$; taste: $\frac{20}{480}$; touch: $1\frac{5}{10}$ inches.

CASE 5.—Æt. 29, forgery. A well educated man of good social position leading an immoral and dissipated life, got into debt and forged a cheque to recover himself. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 15 inches; smell: $\frac{1}{200}$; taste: $\frac{20}{450}$; touch: $1\frac{7}{10}$.

CASE 6.—Æt. 52, fraud. A well-educated man of good social position, living beyond his means, committed fraud extending over a long period. Vision: R. $\frac{6}{36}$, L. $\frac{6}{6}$; no colour-blindness; hearing: R. $\frac{1}{4}$ inch, L. $\frac{1}{8}$ inch; smell: $\frac{1}{100}$; taste: $\frac{10}{480}$; touch: $1\frac{4}{10}$.

CASE 7.—Æt. 50, fraud. Lived for ten years by a system of fraud. In prison behaviour exemplary, industrious, and civil. Vision: R., L. $\frac{6}{12}$; no colour-blindness; hearing: R., L. 5 inches; smell: $\frac{1}{80}$; taste: $\frac{20}{480}$; touch: 2 inches.

CASE 8.—Æt. 26, inflicting grievous bodily harm. A violent, idle, and insolent man; has served four short sentences for stealing, but appears to work when he can easily obtain it. Vision: R., L. $\frac{6}{24}$; no colour-blindness; hearing: R. 16 inches, L. 14 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: 2 inches.

CASE 9.—Æt. 48, murder. A violent and alcoholic man killed a relative; he had been previously sentenced for unlawfully wounding his wife. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 6 inches; taste: $\frac{20}{480}$; smell: $\frac{1}{80}$; touch: $1\frac{6}{10}$ inches.

CASE 10.—Æt. 51, rape. A crafty but not idle or insolent man. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R. 3 inches, L. 2 inches; smell: $\frac{1}{80}$; taste: *nil*; touch: 2 inches.

CASE 11.—Æt. 31, fraud. A well-educated man of good social position committed fraud that he might spend and enjoy the money.

Vision: R. $\frac{6}{36}$, L. less than $\frac{6}{60}$; no colour-blindness; hearing: R. $6\frac{1}{2}$ inches, L. 7 inches; smell: $\frac{1}{80}$; taste: $\frac{20}{480}$; touch: $1\frac{3}{10}$ inches.

CASE 12.—Æt. 65, burglary. Has served three previous sentences for burglary, but has chiefly worked honestly for his living. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R. 4 inches, L. 3 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $2\frac{5}{10}$ inches.

CASE 13.—Æt. 32, burglary. Has received four short sentences for theft, but appears to work honestly when he can obtain it. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R. $7\frac{1}{2}$ inches, L. 6 inches; smell: $\frac{1}{80}$; taste: $\frac{20}{480}$; touch: $1\frac{5}{10}$ inches.

CASE 14.—Æt. 28, wounding. Has been previously imprisoned for assault. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R. 4 inches, L. 3 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $2\frac{3}{10}$ inches.

CASE 15.—Æt. 25, wounding with intent to murder. Was attempting burglary when committed present crime; has previously committed theft; works when he can obtain it. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 12 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $1\frac{7}{10}$ inches.

CASE 16.—Æt. 45, theft. A well-educated man, usually obtaining his living as a teacher of foreign languages, has served two short sentences for theft and burglary. and one sentence of penal servitude previous to the present term. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R. 4 inches, L. 6 inches; smell: $\frac{1}{80}$; taste: $\frac{10}{480}$; touch: $1\frac{7}{10}$ inches.

CASE 17.—Æt. 42, blackmail. Has undergone three short sentences previously, one for fraud; works for his living honestly at times. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R. 8 inches, L. 6 inches; smell: $\frac{1}{40}$; taste: $\frac{20}{480}$; touch: 2 inches.

CASE 18.—Æt. 26, manslaughter. Previous to present conviction has once been sentenced for theft. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R. 12 inches, L. 11 inches; smell: $\frac{1}{40}$; taste: $\frac{10}{480}$; touch: 2 inches.

CASE 19.—Æt. 37, assault. Assaulted a man against whom he had a grudge; has served five short sentences previously, but works honestly as a rule. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 12 inches; smell: $\frac{1}{100}$; taste: $\frac{10}{480}$; touch: 2 inches.

CASE 20.—Æt. 27, wounding. A violent-tempered collier on very slight provocation nearly became a parricide; he has been sentenced twice before, once for theft and once for assault. Vision: R., L. $\frac{6}{24}$; no colour-blindness; hearing: R., L. 24 inches; smell: $\frac{1}{100}$; taste: $\frac{10}{480}$; touch: $1\frac{5}{10}$ inches.

CASE 21.—Æt. 45, fraud. A well-educated man committed fraud in company with others. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 12 inches; smell: $\frac{1}{100}$; taste: $\frac{10}{480}$; touch: $2\frac{5}{10}$ inches.

CASE 22.—Æt. 20, manslaughter. Robbed and assaulted a man, producing fatal injuries. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 10 inches; smell: $\frac{1}{10}$; taste: $\frac{10}{480}$; touch: $1\frac{7}{10}$ inches.

CASE 23.—Æt. 38, arson. An occasional farm labourer and tramp. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 2 inches; smell: $\frac{1}{100}$; taste: $\frac{10}{480}$; touch: $2\frac{7}{10}$ inches.

CASE 24.—Æt. 25, blackmail. Has been previously sentenced for a similar offence. Vision: R., L. $\frac{6}{12}$; no colour-blindness; hearing: R., L. 18 inches; smell: $\frac{1}{800}$; taste: $\frac{10}{480}$; touch: $1\frac{8}{10}$ inches.

CASE 25.—Æt. 24, assault. A violent man but not badly behaved in prison. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 7 inches; smell: $\frac{1}{100}$; taste: $\frac{10}{480}$; touch: 2 inches.

CASE 26.—Æt. 49, robbery. Has undergone two short sentences previously for stealing and one to penal servitude; has worked honestly for years between sentences. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 5 inches; smell: $\frac{1}{80}$; taste: $\frac{10}{480}$; touch: $1\frac{8}{10}$ inches.

CASE 27.—Æt. 24, rape. A labourer; two previous sentences for theft. Vision: R. $\frac{6}{12}$, L. $\frac{6}{8}$; no colour-blindness; hearing: R., L. 12 inches; smell: $\frac{1}{100}$; taste: $\frac{10}{480}$; touch: 2 inches.

CASE 28.—Æt. 37, theft. Has undergone nine short sentences for similar offences, but the total imprisonment does not amount to more than two years extended over a period of sixteen years; appears to work honestly when he can obtain it. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R. 6 inches, L. 4 inches; smell: $\frac{1}{80}$; taste: $\frac{10}{480}$; touch: 2 inches.

CASE 29.—Æt. 57, procuring abortion. An imperfectly educated herbalist; his first imprisonment. Vision: R. $\frac{6}{60}$, L. $\frac{6}{24}$; no colour-blindness; hearing: R., L. 3 inches; smell: $\frac{1}{60}$; taste: $\frac{10}{480}$; touch: 3 inches.

CASE 30.—Æt. 26, assault. A violent, alcoholic man assaulted his wife. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 12 inches; smell: $\frac{1}{100}$; taste: $\frac{10}{480}$; touch: 2 inches.

CASE 31.—Æt. 20, rape. A violent, insolent youth. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 8 inches; smell: $\frac{1}{100}$; taste: $\frac{10}{480}$; touch: $2\frac{8}{10}$ inches.

CASE 32.—Æt. 43, attempting an abominable crime. Of low moral type, but an industrious mechanic when at liberty. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 2 inches; smell: $\frac{1}{100}$; taste: $\frac{10}{480}$; touch: $2\frac{8}{10}$ inches.

CASE 33.—Æt. 56, fraud. A well-educated man; has been previously sentenced for fraud. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 10 inches; smell: $\frac{1}{100}$; taste: $\frac{10}{480}$; touch: 2 inches.

CASE 34.—Æt. 43, wounding. Has undergone one previous sentence for larceny and one for wounding; had a grievance against a man, went to his house, but on finding him out insulted his daughter, and

assaulted a woman who interfered. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: 12 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $1\frac{2}{10}$ inches.

CASE 35.—Æt. 22, rape. A farm labourer, does not always work; his first offence. Vision: R. $\frac{6}{24}$, L. $\frac{6}{12}$; no colour-blindness; hearing: R., L. 6 inches; smell: $\frac{1}{80}$; taste: $\frac{20}{480}$; touch: $3\frac{5}{10}$ inches.

CASE 36.—Æt. 36, rape. Has been previously convicted for theft, but when free is "fairly industrious." Vision: R., L. $\frac{6}{12}$; no colour-blindness; hearing: R., L. 8 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: 2 inches.

CASE 37.—Æt. 39, rape. Has been previously convicted for stealing and charged many times for drunkenness. Vision: R. $\frac{6}{18}$, L. $\frac{6}{60}$; no colour-blindness; hearing: R., L. 4 inches; smell: $\frac{1}{80}$; taste: $\frac{20}{480}$; touch: 3 inches.

CASE 38.—Æt. 40, forgery. Has been previously convicted for theft; well educated. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 14 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: 2 inches.

CASE 39.—Æt. 51, burglary. Is undergoing his third sentence of penal servitude, but has worked for years between his sentences. Vision: R., L. $\frac{6}{12}$; no colour-blindness; hearing: R., L. 6 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $1\frac{5}{10}$ inches.

CASE 40.—Æt. 36, theft. Has been twice previously sentenced for petty thefts; works as a plasterer when he can obtain employment. Vision: R. $\frac{6}{6}$, L. less than $\frac{6}{60}$; no colour-blindness; hearing: R. 6 inches, L. 1 inch; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $2\frac{3}{10}$ inches.

CASE 41.—Æt. 21, manslaughter. In company with other men assaulted a woman and produced fatal injuries. Vision: R., L. $\frac{6}{36}$; no colour-blindness; hearing: R., L. 12 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $1\frac{8}{10}$ inches.

CASE 42.—Æt. 21, rape. An imperfectly educated but industrious man. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 20 inches; smell: $\frac{1}{200}$; taste: $\frac{5}{480}$; touch: $2\frac{4}{10}$ inches.

CASE 43.—Æt. 27, perjury. A man of low companions but industrious. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 10 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $1\frac{8}{10}$ inches.

CASE 44.—Æt. 45, attempted murder. To obtain money attempted to kill a relative. Vision: R., L. $\frac{6}{8}$; no colour-blindness: hearing: R., L. 6 inches; smell $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $1\frac{8}{10}$ inches.

CASE 45.—Æt. 21, assault. A violent, idle, insolent, illiterate man. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 12 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $1\frac{5}{10}$ inches.

CASE 46.—Æt. 44, receiving stolen goods. A traveller added to his income by receiving. Vision: R., L. $\frac{6}{8}$; no colour-blindness; hearing: R., L. 16 inches; smell: $\frac{1}{60}$; taste: $\frac{20}{480}$; touch: $1\frac{3}{10}$ inches.

CASE 47.—Æt. 53, arson. Well educated; having a spite against a man, set fire to his shop. Vision: R. $\frac{6}{60}$, L. $\frac{6}{12}$; no colour-blindness; hearing: R., L. 6 inches; smell: *nil*; taste: *nil*; touch: 3 inches.

CASE 48.—Æt. 33, robbery. Three previous sentences for theft, but has kept out of prison for ten years. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R. L., 4 inches; smell: $\frac{1}{200}$; taste: $\frac{10}{480}$; touch: 2 inches.

CASE 49.—Æt. 55, fraud. A well-educated man obtained money from a girl under the pretence of marrying her. Previously convicted for a similar crime. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 4 inches; smell: $\frac{1}{200}$; taste $\frac{10}{480}$; touch: $1\frac{5}{10}$ inches.

CASE 50.—Æt. 36, receiving stolen goods. Worked honestly as well as receiving. Vision: R. $\frac{6}{12}$, L. $\frac{6}{12}$; no colour-blindness; hearing: R., L. 16 inches; smell: $\frac{1}{100}$; taste: $\frac{10}{480}$; touch: $1\frac{7}{10}$ inches.

CASE 51.—Æt. 26, robbery. Robbed a man in company with others; has also been sentenced for theft. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 10 inches; smell: $\frac{1}{200}$; taste: $\frac{10}{480}$; touch: $1\frac{5}{10}$ inches.

CASE 52.—Æt. 47, theft. A well-educated man, not embarrassed for money, stole some entrusted to him. Vision: R. $\frac{6}{12}$, L. $\frac{6}{6}$; no colour-blindness; hearing: R. $5\frac{1}{2}$ inches, L. 3 inches; smell: $\frac{1}{100}$; taste: $\frac{10}{480}$; touch: 3 inches.

III. *Professional Criminals.*

CASE 1.—Æt. 40, theft. A crafty, insolent, bad-tempered, violent man, commenced a criminal career when fourteen years old with petty thefts. He was early sent to prison; he has undergone four sentences of penal servitude in addition to several short sentences; he is no sooner liberated than he starts crime again. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R. 6 inches, L. 12 inches; smell: $\frac{1}{80}$; taste: $\frac{10}{480}$; touch: 2 inches.

CASE 2.—Æt. 27, theft. Has undergone numerous short sentences for stealing before being sent to penal servitude; he is satisfied with his surroundings, is always cheerful, and takes imprisonment as a matter of course. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R. 12 inches, L. 3 inches; smell: *nil;* taste: $\frac{10}{480}$; touch: 2 inches.

CASE 3.—Æt. 41, burglary. Has undergone several short sentences for theft, and one previous sentence of penal servitude for burglary. There is no evidence of any attempt at earning an honest living. Vision: R. less than $\frac{6}{60}$, L. $\frac{6}{60}$; no colour-blindness; hearing: R., L. 6 inches; smell: $\frac{1}{100}$; taste: $\frac{10}{480}$; touch: 2 inches.

CASE 4.—Æt. 42, burglary. When fourteen years old commenced stealing; at this age he was sentenced twice to short terms of imprisonment. When fifteen he was sentenced thrice, the following year he underwent twelve months' imprisonment again for theft; no sooner is he released than he again steals and receives a sentence of penal servitude; on the completion of this he is within a few months again sentenced to penal servitude for larceny from the person; on being released he is convicted for assault, and this sentence being completed he returns to prison in a short time for burglary. Vision: R. $\frac{6}{6}$, L. $\frac{6}{12}$

no colour-blindness; hearing: R., L. 5 inches; smell: *nil;* taste: $\frac{20}{480}$; touch: $2\frac{4}{10}$ inches.

CASE 5.—Æt. 54, theft. Begins stealing at eighteen, has undergone four sentences of penal servitude, and seven shorter sentences for theft; he is no sooner liberated than he steals and returns to prison. Vision: R. $\frac{6}{18}$, L. $\frac{6}{12}$; no colour-blindness; hearing: R., L. $\frac{1}{4}$ inch; smell: *nil;* taste: $\frac{40}{480}$; touch: $2\frac{7}{10}$ inches.

CASE 6.—Æt. 26, theft. Commences thieving at sixteen, between then and his twenty-second year he is in prison annually, undergoing short terms for theft, and ultimately becomes sentenced to penal servitude; has not made any effort to work honestly. Vision: R., L. $\frac{6}{8}$; no colour-blindness; hearing: R. 12 inches, L. 15 inches; smell: $\frac{1}{100}$; taste: $\frac{5}{480}$; touch $1\frac{7}{10}$ inches.

CASE 7.—Æt. 38, theft. Has been a thief since nineteen, between this age and thirty-three he was sentenced fifteen times; he then is sentenced to penal servitude; he has passed from crime to crime, and done no steady work when at liberty. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R. $\frac{1}{2}$ inch, L. 2 inches; smell: $\frac{1}{100}$: taste: $\frac{10}{480}$; touch: 3 inches.

CASE 8.—Æt. 51, theft. Commences a criminal career when twenty-four and is sentenced to twelve months' imprisonment, at thirty-one he is sent to penal servitude, between the ages of thirty-one and fifty-one he receives four sentences of penal servitude, all for theft; no sooner is one sentence completed than he again steals, and again is convicted. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 5 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $1\frac{6}{10}$ inches.

CASE 9.—Æt. 53, burglary. Originally a tailor of imperfect education, he adopts a criminal career when forty-two; his first crime is burglary, and he is sentenced to a short term of imprisonment; in the following five years he is sentenced four times for burglary and stealing, the last time being to penal servitude; within a few months after his release he is again sent to penal servitude for burglary. Vision: R. eye lost, L. $\frac{6}{8}$; no colour-blindness; hearing: R., L. 8 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $2\frac{5}{10}$ inches.

CASE 10.—Æt. 30, burglary. When twenty commits burglary, within the next seven years he is sentenced four times, he then becomes sentenced to penal servitude; he has made no attempt to perform honest work. Vision: R., L. $\frac{6}{8}$; no colour-blindness; hearing: R., L. 8 inches; smell: $\frac{1}{100}$; taste: $\frac{40}{480}$; touch: $1\frac{7}{10}$ inches.

CASE 11.—Æt. 33, receiving stolen goods. A violent and at times desperate man, when nineteen steals, in six years is sentenced five times for theft, the last sentence being to penal servitude; he is no sooner liberated than he returns, this time for receiving. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 4 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $2\frac{8}{10}$ inches.

CASE 12.—Æt. 60, theft. Remained free from crime till thirty-six years old; he then commenced stealing, and has since received eleven short sentences, and at last penal servitude; he appears to have

made no effort to gain an honest living. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: *nil*; smell: $\frac{1}{60}$; taste: $\frac{30}{480}$; touch: $2\frac{3}{10}$ inches.

CASE 13.—*Æt.* 27, burglary. Commenced stealing at seventeen, since when he has been in prison every year for robbery, theft, or burglary. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 5 inches; smell: $\frac{1}{80}$; taste: $\frac{10}{480}$; touch: $1\frac{5}{10}$ inches.

CASE 14.—*Æt.* 60, theft. A well-educated man at forty-eight adopts crime as a profession; when liberated from prison he returns in a few months for a fresh offence. Vision: R., L. $\frac{6}{18}$; no colour-blindness; hearing: R., L. 5 inches; smell: $\frac{1}{100}$; taste: $\frac{40}{480}$; touch: $2\frac{3}{10}$ inches.

CASE 15.—*Æt.* 18, burglary. When eight is sent to a reformatory for five years; after he leaves, in six years he is sentenced seven times for theft and burglary, the last sentence being to penal servitude. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 10 inches; smell: $\frac{1}{100}$; taste: $\frac{30}{480}$; touch: $2\frac{4}{10}$ inches.

CASE 16.—*Æt.* 45, burglary. Is sent to a reformatory when eight for stealing. Since he was sixteen, when he was convicted for theft, he has been eight times in prison, including three terms of penal servitude. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 4 inches; smell: $\frac{1}{10}$; taste: $\frac{30}{480}$; touch $2\frac{7}{10}$ inches.

CASE 17.—*Æt.* 40, burglary. Has lived by crime for the last seventeen years. Has undergone seven imprisonments, one of which was penal servitude. Vision: R., L. $\frac{6}{18}$; no colour-blindness; hearing: R., L. 2 inches; smell: $\frac{1}{80}$; taste: $\frac{10}{480}$; touch: 2 inches.

CASE 18.—*Æt.* 40, burglary. At fourteen stole, since when he has not been at liberty for more than a few months at a time, his sentences amounting to twenty-three years' imprisonment in twenty-seven years. Vision: R. $\frac{6}{6}$, L. $\frac{6}{12}$; no colour-blindness; hearing: R., L. 6 inches; smell: $\frac{1}{100}$; taste: $\frac{30}{480}$; touch: $1\frac{5}{10}$ inches.

CASE 19.—*Æt.* 34, burglary. Crafty, violent, insolent, started thieving when seventeen; in fifteen years has been sentenced fourteen times for burglary or theft. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R. 12 inches, L. 4 inches; smell: $\frac{1}{100}$; taste: $\frac{30}{480}$; touch: 1 inch.

CASE 20.—*Æt.* 48, theft. Violent, ill-tempered, idle; when twenty-eight stole, and in twenty-seven years has received sentences amounting to seventeen years' incarceration for theft. Vision: R. $\frac{6}{60}$, L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 4 inches; smell: $\frac{1}{100}$; taste: $\frac{30}{480}$; touch: $2\frac{3}{10}$ inches.

CASE 21.—*Æt.* 47, burglary. Sent to a reformatory for stealing; on leaving he appears to have lived honestly for a few years, but when twenty-two is convicted for burglary, and in twenty-five years his sentences amount to twenty years' imprisonment for theft and burglary; he is never out of prison for more than a short time. Vision: R., L. $\frac{6}{18}$; no colour-blindness; hearing: R., L. 5 inches; smell: $\frac{1}{80}$; taste: $\frac{60}{480}$; touch: $3\frac{3}{10}$ inches.

CASE 22.—*Æt.* 26, burglary. Stole when fifteen years old, and in ten years s sentenced nine times for theft and burglary. Vision: R.,

L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 10 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $1\frac{8}{10}$ inches.

CASE 23.—Æt. 27, theft. A well-educated man, stole at seventeen, the next year commits burglary; within a few months of release steals and is sent to penal servitude; completing this sentence, he soon returns to penal servitude for obtaining goods by false pretences. Vision: R., L. $\frac{6}{36}$; no colour-blindness; hearing: R., L. 8 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $1\frac{6}{10}$ inches.

CASE 24.—Æt. 23, theft. Has successively undergone four sentences for theft and burglary. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 6 inches; smell: $\frac{1}{60}$; taste: $\frac{40}{480}$; touch: $1\frac{5}{10}$ inches.

CASE 25.—Æt. 26, burglary. Began stealing at seventeen, since then no year has passed without imprisonment for theft or burglary; in eight years he has received twelve sentences. Vision: R. $\frac{6}{18}$, L. $\frac{6}{36}$; no colour-blindness; hearing: R., L. 18 inches; smell: $\frac{1}{200}$; taste: $\frac{40}{480}$; touch: $1\frac{5}{10}$ inches.

CASE 26.—Æt. 25, burglary. Commenced stealing at fifteen, and was imprisoned; he appears then to have worked honestly as a collier for two years, but again steals at eighteen, and since then no year has passed during which he has escaped imprisonment. He is idle, insolent, cunning, and conceited. Vision: R. $\frac{6}{6}$, L. $\frac{6}{6}$; no colour-blindness; hearing: R. 8 inches, L. 1 inch; smell: $\frac{1}{100}$; taste: $\frac{40}{480}$; touch: $1\frac{9}{10}$ inches.

CASE 27.—Æt. 30, burglary. At fourteen stole and has since lived by crime; in sixteen years he, for theft and burglary, was sentenced seven times, the length of his sentences being in the aggregate fifteen years. He is idle, insolent, malicious, cunning, deceitful. Vision: R., L. $\frac{6}{12}$; no colour-blindness; hearing: R., L. 8 inches; smell: $\frac{1}{200}$; taste: $\frac{5}{480}$; touch: $1\frac{9}{10}$ inches.

CASE 28.—Æt. 22, coining. Has stolen also, never attempted honest work. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 4 inches; smell: $\frac{1}{10}$; taste: $\frac{20}{480}$; touch: $2\frac{9}{10}$ inches.

CASE 29.—Æt. 30, burglary. An idle, alcoholic, insolent man; for the last ten years has been in prison each year for burglary or theft. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 4 inches; smell: *nil;* taste: $\frac{20}{480}$; touch: $1\frac{6}{10}$ inches.

CASE 30.—Æt. 31, burglary. Stole as a youth, since then has undergone seven sentences for theft and burglary, including two penal sentences; no evidence of having attempted to do any honest work. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 8 inches; smell: $\frac{1}{60}$; taste: $\frac{40}{480}$; touch: 2 inches.

CASE 31.—Æt. 54, burglary. Stole as a youth, next imprisoned for unlawful wounding, is now doing his third sentence of penal servitude for burglary; his crimes follow on one another as soon as he is released. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 4 inches; smell: $\frac{1}{100}$; taste: $\frac{20}{480}$; touch: $2\frac{5}{10}$ inches.

CASE 32.—Æt. 34, wounding. A violent, insolent man, has sixteen offences for theft recorded against him; when being chased by a man who surprised him stealing he fired a revolver at him. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 10 inches; smell: $\frac{1}{100}$; taste: $\frac{2}{480}$; touch: 2 inches.

CASE 33.—Æt. 38, theft. Has not done any honest work, and has been sent twice to penal servitude besides undergoing short sentences for theft. Vision: R. $\frac{6}{18}$, L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. $\frac{1}{2}$ inch; smell: *nil*; taste: *nil*; touch: $2\frac{2}{10}$ inches.

CASE 34.—Æt. 45, burglary. Has previously served four short sentences for theft, and one previous sentence to penal servitude for burglary; on release he was almost immediately convicted. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 2 inches; smell: $\frac{1}{100}$; taste: $\frac{1}{480}$; touch: $1\frac{7}{10}$ inches.

CASE 35.—Æt. 52, fraud. Has been previously sentenced for fraud, and immediately on release commenced carrying out another similar system. Vision: R., L. $\frac{6}{6}$; no colour-blindness; hearing: R., L. 1 inch; smell: $\frac{1}{80}$; taste: $\frac{4}{480}$; touch: $2\frac{2}{10}$ inches.

Clinical Notes and Cases.

Three Cases of Melancholia with Symptoms of Unusual Clinical Interest. By R. R. LEEPER, F.R.C.S.I.

THE following cases of melancholia were recently treated at St. Patrick's Hospital, and as they presented unusual symptoms, the study of which possibly may help us to a better conception of the causation of some delusional states, or may throw some light upon the condition of so-called non-diabetic glycosuria amongst the insane, I beg to record them.

CASE 1.—H. J. L—, admitted to St. Patrick's Hospital, October 20th, 1899. Her father was insane and her mother a very neurotic and anxious woman. Her attack was of six months' duration, and was attributed to the anxiety and monetary difficulties which were consequent on her father's illness.

She had been a clever, accomplished, and industrious girl. On admission her palate was highly arched and abnormal, her bowels constipated, and her abdomen tympanitic. Catamenia were absent for two months prior to her admission. The examination of her urine shortly after admission showed a quantity of sugar to be present, sp. gr. 1030, but no noticeable increase of quantity passed per day. Heart normal. Her pupils were widely dilated and reacted sluggishly

to light. Her reflexes were diminished; her weight 6 st. 11 lbs. She could write a coherent letter, well spelt and well written, but entirely expressive of her delusions. These were of a very distressing character —all her relations were dead or were being killed as the result of her wickedness. She believed she was the source of all evil, and suffered from hallucinations of taste and smell, believed she was compelled to eat portions of her father's and mother's bodies, and that the legs of mutton served for dinner were the limbs of her parents. Her case was diagnosed as one of acute melancholia, and the prognosis, notwithstanding her insane inheritance, was favourable. Her urine, two days after admission, was again examined and a large quantity of sugar was still present. Her state was one of extreme delusional anxiety; she was continually wringing her hands and lamenting the sad fate of all belonging to her, who were being massacred outside the hospital walls.

On November 1st she was ordered codeia in 1-gr. doses three times a day; under this treatment the excitement became less, and the quantity of sugar diminished.

On November 30th the codeia was discontinued; the specific gravity of her urine, which had been reduced to 1015 whilst taking the drug, now rose again to 1030. She refused food, and required to be forcibly fed for several days. The note at this time in the case-book is that she "shows no sign of mental improvement, is very resistive and depressed." The total quantity of urine passed per day is slightly subnormal, 2 pints 2 oz. being the maximum quantity excreted in twenty-four hours, which still contains a quantity of sugar whenever the codeia is discontinued.

During the next two months there was a gradual gain in every way. The urine was free from sugar. She gained in weight, and her expression became less melancholic. The dose of codeia was reduced to 1 gr. per day, and as symptoms of recovery became more manifest and the sugar remained absent the drug was gradually discontinued, and iron and aloes were exhibited, as she had not menstruated since her admission, and on February 7th the catamenia reappeared. From this time onward she made an uninterrupted recovery, and was discharged recovered on March 2nd, 1900, four months and eighteen days from date of admission. Her weight had increased by 1 st. 9 lbs.

In this case the disturbed digestion, the delusions in connection with food, and the presence of sugar in the urine are to be borne in mind in connection with the remarks to be made hereafter.

CASE 2.—H. M—, æt. 52, was admitted June 9th, 1900. She was the mother of eight children, had had much trouble in her life, and latterly became very irritable and hypochondriacal. She was refusing her food, as result of the delusion that her bowel was obstructed and that all her food lodged in her stomach. She was extremely emaciated and depressed mentally, with great restlessness. For a long period before her admission she had lived on a diet of tea, bread, and cakes, believing that all other articles of diet caused obstruction. Her pupils were

irregular and sluggishly reacted to light. Her reflexes were normal, her abdomen retracted, her bowels regular in their action. She was induced to take a sufficient quantity of milk diet after a little difficulty. She was ordered ½ gr. codeia every day and cod liver oil, was sent out driving, and kept in the open air as much as possible. Her weight on admission was 5 st. 9 lbs.

On July 13th she had gained 3 lbs. in weight, was sleeping well, and there was merely a trace of sugar in the urine.

On August 1st the codeia was discontinued; she had increased 4 lbs. in weight, and on August 31st there is a note in the case-book that there was no trace of sugar in the urine for the past three weeks.

On September 1st she had entirely lost the delusion of obstruction, which appeared to have become during the early months quite fixed, and she was discharged recovered three months and two days from the date of her admission to the hospital.

CASE 3.—J. R—, male æt. 42, came to hospital asking to be admitted. He was in an extremely weak state, having travelled to Dublin from the west of Ireland, and having had no food since early morning of the day he sought admission. This was the third attack of mental disease from which he had suffered, but he had never before been admitted to an asylum. His present attack was stated to be due to long nursing of his mother. As well as I could ascertain, his first attack lasted only a month. His second attack of mental depression occurred at the age of twenty-three and lasted about a year, and the present attack was of fourteen days' duration. No hereditary history of insanity was obtainable.

On admission he was found to be in an exceedingly weak state; pulse 130, very weak, and compressible. His heart and lungs were normal. His pupils were dilated, but regular and contractible. Weight 9 st. His mental state was one of extreme delusional anxiety: he stated that he was lost, that his stomach was drawn in so that he could not speak, and that his bowels were hopelessly obstructed and that nothing passed through them. His abdomen was retracted and his skin hot and perspiring. His urine was examined immediately on admission, and I found it to contain a quantity of sugar, sp. gr. 1034, very high coloured, and scanty; no albumen present. His anxiety and distress increased from the time of his admission. He kept continually bemoaning his fate, stating that he had come too late for anything to be done for him, and ground and gnashed his teeth together. He was kept in bed, and a mixture of digitalis and nux vomica given, and his diet consisted of as much milk as we could induce him to take. A dose of sulphonal procured him sleep at night.

On July 9th his pulse became very rapid and his condition critical. He passed into a comatose state during the night, and on July 10th he was in a state of coma. His urine, which was drawn off with the catheter, contained a quantity of sugar. His lips and mouth were covered with sordes; a herpetic eruption appeared on his face, and ecchymotic patches appeared on his toes. I ordered him enemata of turpentine, tepid sponging and hot-water bottles to his feet and lower limbs, and did not expect him to live through that night.

On July 16th he had gradually regained complete consciousness, had passed urine for the previous twenty-four hours, which still contained a quantity of sugar; the heart's action had always been rapid, and his pulse was now 124, very weak and thready, but regular.

On July 21st his urine, which had shown a marked diminution in the quantity of sugar, was entirely free from all trace of it; he seemed brighter, and inclined to converse with the attendants.

On August 8th he had completely recovered from his comatose state, and his case appeared to be one of agitated melancholia with delusions of obstruction.

He was sent for daily drives and walks, and ordered a fattening and nourishing dietary with cod liver oil and hypophosphites with strychnine. Digitalis in large doses failed to produce any effect in quieting the heart's action, the bromides were alike useless in procuring cardiac calm; codeia and opium were given with similar results, and belladonna also proved of no value in slowing the pulse to a normal rate. As the amount of urine excreted daily was subnormal, and the pulse exceedingly rapid with an increased tension, I ordered a saline enema of tepid water to be administered nightly without producing any effect upon his condition other than that of causing him some satisfaction, as showing that he had at last convinced me that his bowel *was* obstructed.

His urine remained free from sugar, but his delusions of obstruction were intense, and although he was able to go for short walks in the country and into town he never seemed to lose them. He gained strength gradually and his weight steadily increased. His friends removed him to another institution for the insane on March 12th of this year, thinking to further benefit him by the change. For the eight weeks previous to this no sugar was to be found in the urine or any symptom of a diabetic character. His bowels acted regularly and he gained steadily in weight, but the delusion of obstruction, I fear, remains with him, although it is much less intense than formerly and may disappear entirely as he gains strength.

These three cases all suffered from a condition of non-diabetic glycosuria; their delusions were all of a depressing character, and pointed to disturbed innervation of the splanchnic area. In two of the three cases a disappearance of the sugar from the urine marked the period of the commencement of recovery, and, in the last case, of physical and mental improvement.

I will not assert that the treatment by codeia was the only cause of this change, but it seemed to greatly benefit the first two cases, and the sugar disappeared from the urine shortly after the exhibition of the drug. Dr. Clouston has found that degeneration of the solar plexus occurs in patients suffering from delusions of obstruction of the bowel.

Whether this degenerative process is always present, and

precedes the delusional state, or whether the delusion is resultant from a disturbance of the general innervation and subsequent degeneration of the nervous system situated in the abdominal cavity, must at present remain an obscure but possible cause of the delusion of obstruction of the bowel in these patients. If the splanchnic is cut and its proximal end stimulated, sugar will appear in the urine. A wider knowledge of the results of the innervation and physiological character of digestion must assist us in our study of the causation of delusional or particular melancholic states.

The three cases I have recorded are instructive, as showing how important as a means of directing treatment is an early recognition of any abnormality in the excretions of the insane, and this seems to have been recognised at a very early period, for we find that the first thought of those beholding with alarm the mental symptoms shown by Malvolio "was to fetch his water to the wise woman," a female in the Elizabethan age who seems to have occupied the position of the physicist of to-day. If we study the causation of the delusions, the feelings of exultation and depression which gather in the minds of those to whom it is our daily duty to minister, we find our highest and most difficult labour. The student of the causation of delusion must early realise that this most obscure subject is closely connected with physiological chemistry, and particularly with those chemical decompositions, neurotoxic in character, resulting from the pathological irritation of nerve tissue with subsequent disorganisation, atrophy, and degenerative change.

Read at the Annual Meeting of the Medico-Psychological Association, Cork, 1901.

Two Cases of Syphilitic Idiocy. By L. HARRIS LISTON, M.D., Assistant Medical Officer, Exeter City Asylum.

CASE I.—E. W—, æt. 27 years, presents the following signs of congenital syphilis. As a whole the skull is large, forehead square, frontal eminences very prominent, bosses on the parietal bones, bridge of nose broad, at angles of mouth are radiating linear scars, the upper central incisors are dwarfed, pegged, and notched. Two years ago she had an attack of interstitial keratitis beginning in one eye, and after two weeks affecting the other.

Besides these signs she has other degenerative stigmata: her palate is narrow and highly arched, her left iris is brownish green, the right blue, her eyelids are thickened, her hair is short and scanty, breasts small, menstruation irregular and scanty.

Mental history.—When about two years old she appeared "wanting," could not learn words; went to school, failed to learn to read or write but could count. Was then kept at home, and at times did a little housework, but was very sleepy and lazy, and at puberty, which occurred at about seventeen years of age, was sent to the workhouse, where she remained till aged twenty-one. While there she became troublesome, had fits of "temper," during which she was noisy and abusive without reason, and on this account was removed to asylum care.

During her stay in the asylum she has been uniformly dull and stupid, seldom speaking or working. On rare occasions she has fits of bad temper, but is generally placid, taking little notice of anything. For the last six months she has shown some signs of personal vanity; for instance, tucking up her sleeves to show her arms, baring her neck and chest, and caressing a curl, smiling appreciation when admired.

CASE 2.—K. O—, æt. 38, has prominent frontal eminences, similar bosses posteriorly on the parietal bones, little pitted scars around the mouth, and at its angles radiating linear scars are to be noticed. She has only one tooth, a bicuspid, in the upper jaw. Palate is narrow, highly arched, and deeply scarred. Her head is round, circumference twenty inches, flattened posteriorly. Hair of head scanty and poor; no pubic hair. Breasts very small. Menstruates regularly but scantily. Both tibiæ are thickened with nodes. She has many pigmented scars on both shins. Body dwarfed.

Mental history—She could not be taught to read or write, and was a long time in learning to speak. She is now simple, facile, and easily pleased, wants help in washing and dressing. Is good tempered and well behaved. Often pretends to be suffering from cough and other slight ailments, as she has learnt that she may thereby obtain lozenges and wine. She helps in dusting and carrying, but requires to be aided in all she does. She has no active desires, no sexual feelings, and no ambition.

Remarks.—Well-marked examples of congenital syphilis in idiots are rarely seen, and although it is not uncommon to note a slight mental deficiency in the subjects of inherited syphilis, one sees many sufferers from the disease whose mental vigour is unimpaired.

In other diseases of the brain in which undoubted structural alterations occur, notably in cases of general paralysis of the insane, the signs of acquired syphilis or its history are extremely common.

Bearing in mind these two facts, *firstly*, that idiocy is rare in cases of congenital syphilis, and *secondly*, that general paralysis is usually the result of acquired syphilis, the question

arises, Why do the former class of cases so rarely, and the latter so frequently, suffer cerebral degeneration? Can it be the result of treatment?

On the earliest appearance of any symptom in the child the anxious mother seeks advice, appearing at the out-patient department of the children's hospitals; there the condition is diagnosed as one of inherited syphilis, and the little patient is immediately put upon anti-syphilitic treatment. The importance of continuing the treatment for a considerable time being impressed upon the mother by the physician, the child, as a rule, is freely dosed with mercury.

On the other hand, to take the case of a man who has unfortunately contracted the disease, only too often, on the advice of a friend, he applies some simple remedy, being ashamed to confide in his medical adviser. After weeks or months, when saturated with the poison, suffering, possibly, from sore throat, ulceration of the mouth, and a syphilitic eruption, he realises the nature of the disease from which he is suffering, and then only seeks proper advice.

Although he may then improve considerably under active treatment, the virus may have already had its deadly effect upon the delicate organisation of the higher neurons.

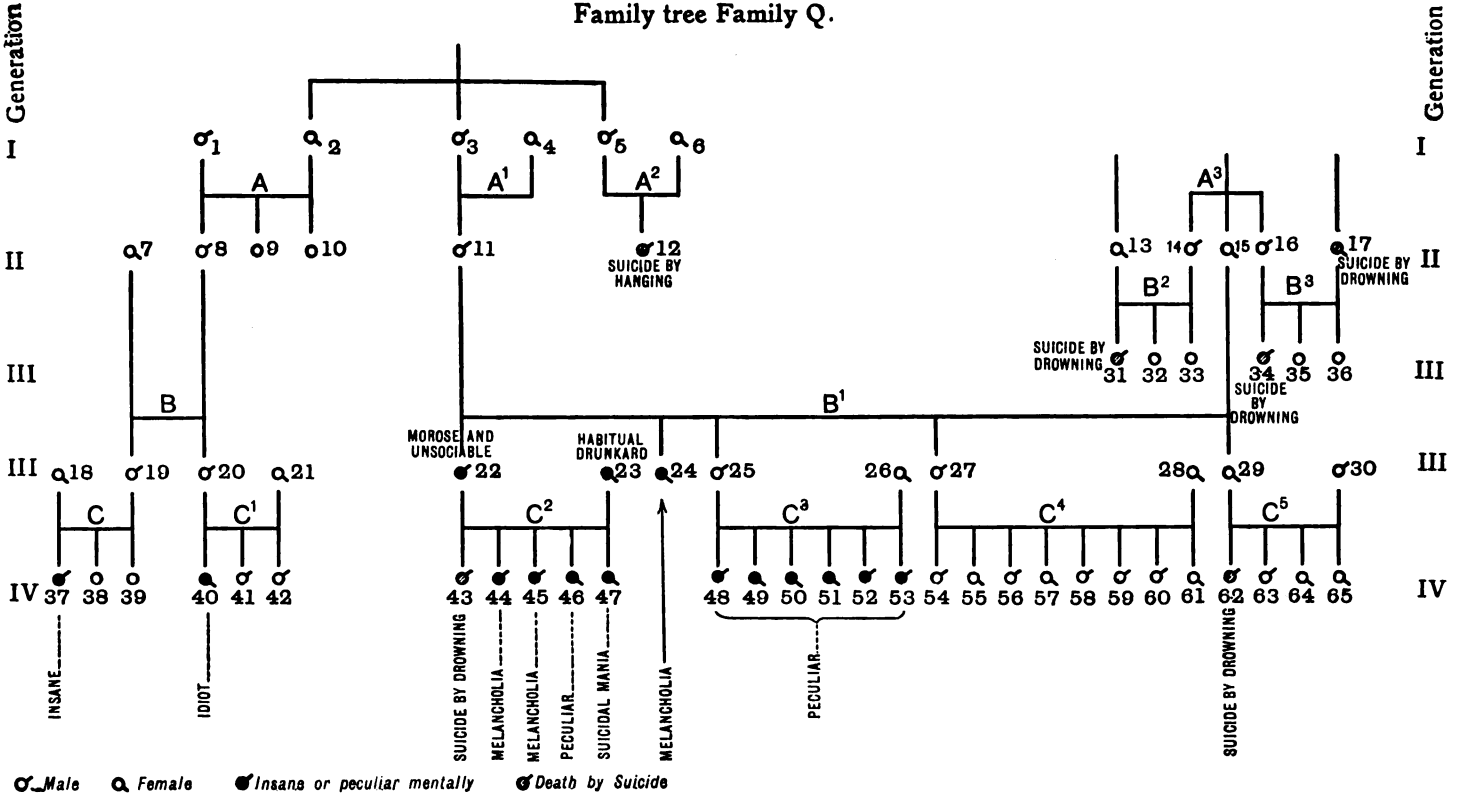
This degeneration, as a rule, is not manifest until years after infection, but occasionally, when the infection has been severe and the secondary symptoms very pronounced, symptoms of general paralysis of the insane may appear within two years, as in a case recently under my observation. In these cases on inquiry one ascertains that either treatment has been entirely neglected or else has been inadequately carried out.

A Family Tree illustrative of Insanity and Suicide.

By J. M. S. WOOD, M.B., Sheffield Royal Infirmary, and A. R. URQUHART, M.D., Perth.

THE Family A has been engaged principally in seafaring pursuits.

The tree shows, in a graphic manner, the incidence of insanity and suicide. There is also an undefined family history of phthisis. The following figures give the numbers of members of the families affected or unaffected.



History unknown, Nos. 1, 2, 3, 4, 5, 6, 32, 33, 35, 36, 38, 39; total 12.

Reported normal, Nos. 7, 8, 9, 10, 11, 13, 14, 15, 16, 18, 19, 20, 21, 25, 26, 27, 28, 29, 30, 41, 42, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65; total 32.

Reported unsociable, retiring, morose, reserved, and peculiar, Nos. 22, 46; also haughty in manner, Nos. 48, 49, 50, 51, 52, 53; total 8.

Habitual drunkard, No. 23.

Suicides, by hanging No. 12; by drowning Nos. 17, 31, 34, 43, 62; total 6. Suicidal tendencies observed in Nos. 24, 44, 45, 47; total 4.

Insanity obvious in Nos. 40 (idiocy), 37 (adolescent insanity, treated in an asylum), 24 (melancholia, with religious delusions, treated in an asylum), 44 (recurrent melancholia, several times treated in an asylum), 47 (recurrent mania, with strongly suicidal tendencies, several times treated in an asylum), 45 (melancholia, with threats of suicide); total 6.

Thus out of a total number of 65 persons now reported there are 8 markedly peculiar in mental condition, 4 have threatened suicide, 6 have committed suicide, and 6 have been idiotic or insane.

PATERNAL DESCENT.

Generation I. Mental condition unknown.

II. Family A, reported normal; Family, A^1 reported normal; Family A^2, one suicide by hanging.

III. Family B, reported normal.

IV. Family C, reported unknown, 2; insane, 1; Family C^1, reported normal, 2; idiotic, 1.

MATERNAL DESCENT.

Generation I. Mental condition unknown.

II. Family A^3, reported normal, 4 (No. 17, who committed suicide by drowning, married into Family A^3).

III. Family B^2, unknown, 2; suicide by drowning 1; Family B^3, unknown, 2; suicide by drowning, 1 (this being the son of No. 17).

UNION OF FAMILIES.

Generation III. Family B^1, reported normal, 3 ; morose and unsociable, 1 (who married an habitual drunkard); insane, 1.

IV. Family C^2, the eldest committed suicide by drowning, the other 4 were more or less insane. (This is the result of the marriage of Nos. 22 and 23—a morose, unsociable individual having married a female habitual drunkard.)

Family C^3, consisting of 6 individuals, all more or less peculiar mentally.

Family C^4, reported normal.

Family C^5, the eldest committed suicide by drowning, the remaining 3 are reported normal.

Remarks.—The observations now submitted illustrate several well-known points in regard to heredity. They are specially interesting in regard to the persistence of similar forms of insanity in family histories. The Family A are affected with unsocial or antisocial mental peculiarities—a morose, shy, retiring disposition evolves in a later generation as well-marked melancholia with suicidal tendencies. The degenerate condition of the long list of cousins (29) in the fourth generation is marked by active insanity or idiocy in 5 cases, strong mental peculiarity in 7 cases, and suicide in 2 cases. Out of 6 families only one has apparently escaped, probably by the prepotency of the mother. The evil results in the case of Family C^2 are specially apparent, a deeply affected father having mated with an habitual drunkard. That the prolific Family B^1 will tend to disappear can hardly be doubted. The rapid method of suicide has accounted for two of the cousins, the asylum will protect Family C^2 from further disasters, the antisocial tendencies of Family C^3 will diminish the chances of procreation, and Family C^5 has begun badly, and will, no doubt, leave its mark in asylum records. There only remains Family C^4, and it is to be hoped that some future observer will chronicle the results in due time.

Read at the Annual Meeting of the Medico-Psychological Association, Cork, 1901.

A Case of Spontaneous Fracture. A. HERBERT SPICER, M.B., B.S.Lond., D.P.H.Lond., Assistant Medical Officer, Claybury Asylum, Woodford Bridge, Essex.

IN looking through the post-mortem records of an asylum one constantly comes across cases of injuries of grave nature, which apparently could only have been caused by violence, but in which either no history of injury is obtainable, or else it is of a slight nature, quite out of proportion to the damage done. As examples I mention briefly the following, which occurred in Claybury Asylum during the last two years.

1. G. H—, æt. 49, general paralytic. On the 3rd February, 1901, he is noticed to be feeble; on the following day he is vomiting and collapsed, and dies. Post mortem he is found to have a rupture on the under surface of the right lobe of the liver, one and a half inches long by half an inch in diameter, two inches to right of gall-bladder, with the extravasation of about a quart of blood into the peritoneal cavity. No history of injury obtainable.

2. H. A—, general paralytic, æt. 20, is found post mortem to have a dorsal dislocation of the hip, the joint and surrounding tissues being full of broken-down blood and pus. At first sight one would say this was a case of acute arthritis with secondary dislocation; but it is especially noticed by the pathologist (Dr. Bolton) that the cartilages of the joint are practically normal, and that it really was a case of primary dislocation with secondary suppuration, the latter being rendered probable by the fact that he had suppurating sores on his legs. Again no explanation of the injury could be found.

3. L. D. G—, æt. 80, is taken suddenly ill, and dies within twenty-four hours. She is found to have a T-shaped rupture of the aorta, one inch above left coronary artery, the stem and cross-bar of the T each measuring one inch. The pathologist reports that, for a woman of her age, the aorta was comparatively healthy, and presented but a moderate degree of atheroma.

4. One of my own patients, an old woman of 85, was found unable to stand when got up from the tea-table. She had walked to the table with slight assistance. She received no injury whatever; neither nurses nor patients in her vicinity saw her fall; yet on examination the right femur was found frac-

tured in its upper third. It is now united, and she can get about again on it. No explanation of the case was forthcoming.

It is a relief to turn from these extraordinary and unsatisfactory cases to the one which is the immediate subject of my paper, for although in this case the injury was a fractured femur, occurring during a fit, yet a sufficient reason was forthcoming at the time of the accident, and was verified at the subsequent post-mortem.

5. This patient, a woman æt. 33, the subject of chronic mania, on August 12th, 1899, had a fit in bed, and it was noticed immediately after the fit that the patient had developed a swelling of the right thigh, which the nurse thought to be a tumour of the muscle.

On examination it was found that the femur was broken across at the upper point of trisection of the shaft. Manipulation of the broken bone appeared to cause no pain, although the woman was very sensitive to pain, and the crepitus between the ends was of a peculiar soft character, very unlike the usual grating. It was evident that the bone had broken across during the convulsion, and the question was how such an accident could have occurred from such a comparatively insufficient cause. Fortunately the history of the case gave the answer, for two months previously I had amputated the left breast for scirrhous carcinoma. The wound had healed, and the patient had been walking about apparently all right, except that she occasionally complained of some vague pain and weakness of the leg, for which no cause could be found on careful examination, as a fortnight before the fracture she had a fit for the first time. A secondary deposit in the brain was suspected but unconfirmed.

At the time of the injury there seemed to be no abnormal swelling about the ends of the bones, but taking into consideration the history, the absence of pain, and the character of the crepitus, we came to the conclusion that it was a case of spontaneous fracture, occurring in a bone the seat of malignant disease. This belief was somewhat shaken when it was found that union was taking place between the ends of the bones; but our doubts were set at rest by the development at the seat of fracture of a swelling, which, growing rapidly, attained at

the time of the patient's death (about three months after the injury) to the size of a small melon.

At the post-mortem examination the ends of the femur were found embedded in new growth, and the suspected cause of the two fits mentioned previously (and of four others subsequent to the injury) was verified by finding a new growth in the dura mater of the right parietal region, the side opposite to the fractured limb, the growth being of considerable size, having an area of five square inches by half an inch in depth.

With reference to this temporary union occurring in rare cases of spontaneous fracture, I quote a case recorded by Mr. W. H. Bennett (*Clinical Journal*, February 27th, 1895), that of a woman aged fifty-six, who for some time had vague rheumatic pains in the legs, so much so that on getting into bed she was accustomed to lift the thigh up on to the bed. One night in doing so the femur snapped in two. The case was not cleared up until a thorough examination revealed a previously unsuspected malignant tumour in the breast. In this case, as in mine, a certain amount of union took place, and this union was afterwards dissolved.

Through the kindness of Dr. Bolton I am enabled to show you the femur of the case I have described, together with a lantern plate of the brain, showing the tumour of the dura mater, together with microscopical sections, taken vertically, through the growth and dura mater. These sections show the tumour to be secondary to that of the breast.

Discussion

At the Meeting of the South-eastern Division at Brentwood, 24th April, 1901.

Dr. Robert Jones.—We know how difficult it is to avoid fractures of this kind in asylum life, and recognise that there is often an actual softened condition of the bone, that there is an enlargement of the canals, and that there is an excentric atrophy of the bones, as proved by post-mortem examinations. The general public believes that suspicion lies on the nurses and attendants. With all precautions these fractures will occur, and they occur from natural causes.

Dr. J. S. Bolton.—I quite agree as to the large number of cases there are of fractures of which the attendants know nothing, some of which probably occur before admission to the asylum. I have found cases in which a number of ribs were broken—old fractures which were not discovered during life. It is not uncommon to find such conditions post mortem. It is generally considered that a patient has to be sufficiently old before the bones become so brittle as to break easily. All the cases I have referred to are those of men who were under fifty years of age. I think it is highly important that this matter should be brought before the Association in the way that Dr. Spicer has done, and to formulate a resolution agreeing that these fractures are liable to occur from slight causes, no blame attaching to the medical officers or attendants. I think it ought to

be brought before the medical profession, and to some extent before the general public, that the bones of the insane are in a more fragile condition than the bones of an ordinary person of the same age.

Dr. R. H. STEEN briefly related a case under his observation in which fracture of the femur occurred in a woman aged seventy-eight after she had been placed in bed.

Occasional Notes.

The Annual Meeting at Cork.

THE sixtieth annual meeting of the Medico-Psychological Association was held in Cork at the end of July under the presidency of Dr. Oscar Woods. About forty members assembled to take part in the proceedings, and to share in the true Irish hospitality so generously extended to them. The President had taken every pains to make the meeting a success, and we feel assured that his kindly efforts were highly appreciated by all those who had the good fortune to attend.

The admirable buildings of Queen's College were placed at the disposal of the Association, and the various meetings were therefore accommodated with every comfort and facility. The Royal Yacht Club and the Cork Club honoured the Association by freely opening their doors to our members, and our appreciation of these courtesies was duly recorded in the minutes.

We need not again sing the praises of the pleasant banks of the river Lee and the beauties of the town of Passage, although the bells of Shandon still reverberate in recollection. We need only record that the Cork meeting of 1901 will endure as a very happy memory, from the time of our first excursion to Queenstown till the final parting at Killarney. By a happy inspiration—a lady's, of course—Dr. Woods was completely taken by surprise when Dr. Clouston conveyed to him a silver bowl as a friendly souvenir of the occasion. The usual report of the proceedings is presented in this number of the JOURNAL, and it will be seen that the scientific, business, and social engagements will compare favourably with those of previous years. In fact, the excursion through Bantry to Killarney, lasting for three days, has had no parallel in the

history of our Association, and it showed Dr. Woods' powers of organisation and his untiring energy in other fields than those with which we were already familiar.

The President delivered an address dealing with the administration of lunacy affairs in Ireland during the past century, and we have no doubt that it will be read with the attention and appreciation which it deserves. It touched many subjects of deep and vital interest, not only in illuminating the facts of the past, but also in discussing the principles which should guide the government in the immediate future.

Recent legislation has altered the administration of asylums in many directions, and it is evident that our colleagues in Ireland view with apprehension possibilities of retrogression, which they are determined to avert with all the Celtic vigour at their command. Besides the questions dealt with by the President, Dr. O'Neill and Dr. Graham brought forward very strenuous arguments for watchfulness in regard to recent developments affecting the insane. We have been so accustomed to regard Irish asylum officials as secure in retirement, provided for by adequate pensions after the end of their working days, that it was with no little concern the Association heard of the revolution accomplished by the Local Government Act in this matter. Ireland has been reduced to the position of England, and pensions now are no longer secure. The staff of a district asylum in Ireland may find themselves practically in the same position as their neighbours in Scotland. When the long day closes they may be cast off as useless, not even to be regarded as encumbrances. Here is another injustice to Ireland and to the insane, for whatever tends to ameliorate the condition of officials, rendering them more efficient and more contented, must in proportion benefit those whose care and treatment demands the best that can be done. We have no doubt that the Parliamentary Committee will be careful not to lose sight of the principles on which they have so long acted, and that they will keep in touch with our colleagues in Ireland in actually dealing with the difficulties now apparent.

Dr. Graham's paper dealt with another important administrative aspect of asylum organisation. The result of his exordium and Dr. Nolan's advocacy was that the Association once more stands committed to the fundamental truth that insanity is an affair of medicine. However we may disagree with

Dr. Graham's rhetorical method, we must admit that to relegate the care of the insane to inferior guardians, "neither squeamish nor over-refined," without the controlling, informing supervision of the medical profession, would be a retrograde step, a policy which would stultify the Association after sixty years of effort in the opposite direction.

Dr. Carswell's experience in regard to the working of the Inebriates Act induced active interest in what has been accomplished in Glasgow, and it is to be hoped that the Association will lead public opinion in a more systematic manner than has yet been attempted. Fresh from the country of Father Matthew, we cannot forget what has been done to stem the tide of drunkenness by men of other professions and other interests, yet the world must recognise that the medical faculty have advanced the scientific knowledge of the accursed thing and have led opinion in legislation and in social life. We trust that a committee will be appointed to formulate our convictions and to press for further development of the laws dealing with drunkards of every class.

The more strictly scientific work of the meeting was well supported by such papers and addresses as those of Dr. Edridge-Green, Dr. Bolton, and Dr. Leeper; while Dr. Dawson's interesting study on suprarenal extract awoke a practical discussion on treatment.

It will be seen by the report of the Council that the Association continues to grow in numbers and in influence. Every year finds it stronger and more active, not only in its central organisation, but in the remoter parts of the kingdom.

Dr. Clouston, in his unaccustomed *rôle* of Jeremiah, is only convincing until the Treasurer's report is adopted. No sooner are the accounts passed, with a warning to be more careful, than up comes a proposition to spend more money on the JOURNAL. We would gladly recompense our trusted workers in some measure commensurate with their toils; but after the Treasurer's declaration of confidence in our economical, not to say penurious dealings with those who labour to render the JOURNAL worthy of its founders and proprietors, we can only continue on the lines so long followed, assured that these are generally approved by the Association.

Bureau of Information.

We would direct attention to the proposal made by Dr. Miller, of the Warwick County Asylum, as set forth in the JOURNAL for July last, at page 625. Dr. Miller brought this question before the Council at the Annual Meeting, when it was resolved to approve of the scheme whereby a Bureau of Information regarding matters of asylum administration would be established. Dr. Miller having been authorised to obtain information, it is to be hoped that he will meet with general support in the Association. Much might thus be done to record what is useful to know in reference to details of management in various parts of the country. A great deal of work has been done in the past in the way of ascertaining the results of practical experience; but it is lost, as records of cases are lost, in the multitude of other materials. Questions are asked over and over again which might be answered once and for all, new questioners might be referred to old replies. The success of any such plan generally depends upon the unselfish labours of one man. We have such a man in Dr. Miller. It is to be hoped that in their own interests, as well as in the interests of the insane, our members will render to him their willing support, and that we shall in course of time secure a great body of trustworthy information on points at issue.

Private Care.

The *British Medical Journal* of June 29th contains an interesting article on the private care of the unsound in mind. It would seem that Mr. Hempson, solicitor to the Medical Defence Union, has lately contended that from the very words of the Lunacy Act it appeared never to have been the intention of Parliament to extend the term "lunatic" to all persons of unsound mind; and he further suggested that in order to secure a practical differentiation the definition of the term should be varied by requiring that a patient, to be a "lunatic," must be medically certifiable. This is a proposal which must meet with our most active opposition. So far back as 1855 our predecessors were agreed that such terms as "lunatic" and "lunatic asylum" should be as far as possible disused, and they formulated a rule to that effect which is set forth at

length in the first volume of this JOURNAL. The lawyers, however, proved too strong in their conservative habit, and the opprobrious epithet has been continued legally and officially to the present time. Referring to this point in presenting the report of the Parliamentary Committee at Cork the other day, Dr. Hayes Newington explained that a memorandum had been presented to the Lord Chancellor which contained a suggestion to the effect that the use of the word "lunatic" should be abolished, and that our patients should not be insulted by the use of this offensive term.

As a matter of fact the remedy proposed by Mr. Hempson would not be of the slightest value in practice. One can never tell until a jury has declared their verdict whether a person will be held sane or insane. The same element of doubt would remain if the same case were again presented for the consideration of a second jury. It cannot be exactly determined when a person becomes medically certifiable. That is a matter of opinion, and a medical certificate of insanity is merely the record of that opinion, good until it is proved erroneous. By what semblance of right does Mr. Hempson seek to affix to patients in asylums the stigma of the term he so properly objects to as regards those persons of unsound mind in private care? Success in his contention would degrade our hospitals for the insane most unjustifiably. It is a mere accident of wealth whether the person of unsound mind is placed in a county asylum, or whether an asylum is constituted for himself alone. The medical profession can admit no such arbitrary and artificial distinction as that for which Mr. Hempson pleads. As soon as a person of unsound mind is in such a state as to require care and treatment, it is imperative that he should be protected by the State. If he is received into any house or establishment for gain the precautions must be adequate. We urge that those insane persons scattered throughout the country in private care are just as much in need of official inspection as those in establishments. The laxity with which private care is regarded is astonishing. Impecunious individuals of every sort and condition are the self-constituted guardians of insane persons, and consequently from time to time scandalous results reach the public ear. We would desire to see some standard of suitability and efficiency set up, some official record of these guardians kept. We would desire

to minimise the evils of private care by bringing both caretakers and insane under the official cognizance of the Commissioners. Not that we admire or plead for the indiscriminate use of red tape, either in private houses or in institutions, which latter are already hampered in usefulness by legal strangulation; but we have no hesitation in urging that there can only be two classes of persons of unsound mind from this point of view—voluntary boarders, and patients deprived of liberty of action on the ground of insanity. There will always be a difficulty in drawing a hard-and-fast line between these classes; but it is evident that if a person is constrained to act as his guardian directs, if he has not full liberty of action, he is in a position requiring official inspection and official control. He is a person of unsound mind, a fit and proper person to be detained under care and treatment—a "lunatic," if the public are so minded as to use that term,—but his lunacy is determined by the fact of his mental incapacity, by conduct in some way detrimental to himself or others, and is not by any means dependent upon the accident of his position in a private house as opposed to a larger establishment. See where this line of argument leads! A man might be regarded as no lunatic if he were consigned to private care apart from every other insane person, but he would probably at once become a lunatic if another similarly incapacitated were under the same roof, certainly a lunatic if two or three were added; for then, in the words of the *British Medical Journal*, he would be in "the natural home for lunatics, which is a lunatic asylum." In the Manchester Royal Asylum, and other similar institutions, there are separate houses, some of which contain a single certified patient—perhaps a slight case of mental derangement. Why should such a patient, who may prefer that arrangement to private care, accept the title which Mr. Hempson would thrust upon him? The fact is Mr. Hempson is an amateur in pleading this case. We have already shown the more excellent way, in urging that reasonable facilities might be granted for the treatment of incipient insanity in England. Scotland has long enjoyed the advantage of so dealing with that class of patients, and, moreover, has long boarded-out chronic insane persons with guardians of approved character, under medical supervision and under official inspection. It has not been proved necessary to propose any hair-splitting definitions, or to dis-

criminate in law between the classes it is now sought to differentiate. If changes are imminent in England, we would rather see a policy instituted which would result in the removal of the restrictions on the establishment of private asylums, so that they might develop as the hospitals for the insane have developed, without let or hindrance except as may be ruled by the survival of the fittest under the intimate supervision of the Commissioners in Lunacy. We hope to see the private care of the insane restricted to competent persons equally under official control. The results of recent legislation have not been happy. Those in charge of private asylums have been the objects of ill-considered and unjust restrictions, those in charge of separate patients have been given a free hand—a physician charged with the care of several patients is the object of suspicion and detraction, any illiterate caretaker will pass muster if he quietly confines his business to a single patient. Now it is proposed to smooth the way for the caretaker by speaking comfortably of his ward, and to still further prejudice his neighbour by affixing to asylum gates, *For Lunatics only.* That is what we know as Compromise in England. Can we endorse it?

Instruction in Mental Disease to the Medical Student and Practitioner.

The need of instruction in mental diseases by the incipient general practitioner was dwelt on in an occasional note in our last issue. A paper on this subject in the *British Medical Journal*, by Dr. Robert Jones, raises the question of the methods and extent of instruction that is necessary and possible.

The mental disease curriculum which Dr. Jones advocates is perhaps rightly described by one of his critics as a counsel of perfection. The time limit alone is a complete bar to the student's obtaining a mastery of the histological technique necessary for any really useful investigation of brain disease; neither is it possible that he could acquire such a knowledge of the treatment of insanity as would qualify him for the post of superintendent of an asylum; and the question, indeed, is not in regard to the most desirable, but to the most practicable course of instruction.

The existing arrangements, for a course of twelve lectures with clinical demonstrations in an asylum, probably take as much time as the student can fairly be asked to spare for the subject; and if this main basis is settled, the question only remains as to the methods by which these means should be made effective.

The effect of the lectures depends on the lectures themselves and on the insistence on attendance. The lectures to cover the ground in any satisfactory manner must necessarily be condensed, and as far as possible illustrated.

The demonstrations should be made to include every phase of mental disease, and should certainly embrace a visit to an idiot asylum, and desirably also to an asylum for imbeciles.

Dr. Jones recommends practice in the filling up of certificates, and it is advisable also to exercise the thoughts of the students by calling on them to write an opinion on the responsibility of patients or on their capacity for making a will.

Demonstrations of a carefully chosen series of microscopical preparations are certainly desirable. Post-mortem demonstrations are rarely possible beyond the exhibition of a recent brain or two.

These things are probably the minima of teaching, but the difficulty is to make them efficient. Students, under the influence of novelty, crowd to earlier demonstrations, but soon tend to fall off in their eagerness, and they are especially shy of that part of the curriculum which calls on them to fill up forms or express written opinions or observations. An effort or two of this kind will, however, arouse the intelligent interest on the subject more thoroughly than anything else, and such efforts should therefore be called for rather at the beginning than the end of the course.

The most that can be hoped for from such a course without further experience is that the student should be able to recognise a case of mental disorder, know enough of treatment to avoid any gross mistakes or oversights, and be prepared to fill up a certificate in a formal manner.

That a newly qualified man with no other training and experience than can be thus given should be called on to fill up a certificate of insanity is a question of an entirely different character; no doubt in the majority of cases he would be quite

right, but in some few instances it is possible that he might over- or under-estimate the serious nature of the disorder.

The law, however, demands that any qualified practitioner may be called on to sign a certificate, however inexperienced, and no change can be expected unless some bishop or other bigwig is certified with undue facility, when it will be discovered that the discharge of this function demands special training and experience.

The Scottish Universities and Psychiatry.

A well-informed and cogent article in the *Scotsman* for July 4th shows how defective the Scottish Universities are in regard to the teaching of Psychiatry, and pleads for a full consideration of the whole question. The writer, seizing an opportune moment, while Mr. Carnegie's munificence is the topic of the day, shows how much has been done in the Universities of Germany in providing clinics for study and treatment of the insane, and how little has been done in Edinburgh to bring the medical school into line with other countries which have long led the way. He shows the importance of the omission, and refers to the fact that there is even yet no clinic attached to the Royal Infirmary, as accessible to students as that infirmary, although the establishment of such an institution has been repeatedly urged during the last thirty years. Of course the wider questions of the advancement of science, and the improved treatment of nervous and mental patients, find able advocacy in the article referred to. Referring to what has been done at Würzburg, the best clinic in Germany, it is stated that it cost £14,000 for sixty beds, with laboratories, lecture-room, etc., complete; that the site was the gift of the Municipality; and that the Government, in the usual course of German educational policy, liberally contributed. It is also shown that the observation wards established in Glasgow have materially reduced the admissions into the asylum, and that the several public boards of Edinburgh ought to take special interest in such a scheme on the ground of economy alone. The writer indicates these boards, and gives reasons why they should combine to set up a clinic of Psychiatry in Edinburgh. He calls upon the Town Council, the Medical School, the Edinburgh District Lunacy Board, the Royal Infirmary, and

the Judiciary to take part in this scheme, which would surely rank as a philanthropic and educative achievement in the widest sense; and his final suggestion is that some of our wealthy men should follow the patriotic example of Mr. Carnegie.

Unfortunately we often find that the best advice is practically wasted unless it is enforced by action. Might it not be possible for our Scottish colleagues to convene a meeting in Edinburgh to make these suggestions a practical policy? They have established a joint pathological laboratory, which is already being developed in the sphere of bacteriology, in spite of the difficulties which beset its inception; and we look to them to inaugurate the new century with a bold and comprehensive scheme, which will at least bring psychiatry in Scotland to a level with psychiatry in Germany.

Centenary of Wonford House Hospital for the Insane.

As told by the Committee in their report for 1900, the following resolution was passed at a meeting of Devonshire notables, held at the Castle Exeter on July 29th, 1795:

"That it is the sense of this meeting that a General Hospital for the Reception of Insane Persons should be established in or near the City of Exeter."

At that meeting £2175 were subscribed. When this nucleus became sufficiently enlarged Bowhill House was bought, and formally opened for the reception of patients on July 1st, 1801. Thus has the hospital, which has since migrated to Wonford, in this year attained its centenary. As the Committee point out, the heavy work of starting the institution was carried through when England was experiencing the strain and stress of a great war. Beyond all questions of energy and unselfish contribution of time and money, for which the promoters can justly be lauded, there must arise in our minds unstinted admiration for the trustful bravery with which they broke away from what was then considered to be the normal method of treating insanity. Now-a-days popular indignation would sweep away such abuses as were then current without the help of any reformer. But a century ago it was very different. With one or two exceptions no one then knew anything of the brighter treatment. Private asylums get the

chief discredit for the existence of abuses, principally because there were few public institutions to take their share of reproach, and of the latter Bethlehem had yet to face at least two damning inquiries, while the iniquities of the York Hospital had already led to the revulsion of feeling which culminated in the establishment of the Friends' Retreat. If reports be true, even the Head of the State experienced treatment then which would now be the subject of prosecution. In fact, the ordinary course of lunacy treatment all round was utterly abominable, and this adds more honour to those whose more correct inner feeling led them to show the way to better things. The existing committee can be congratulated on having such brave predecessors, and it is now a suitable time to inquire whether subsequent work has done credit to that which was so well begun. If a good reputation, if a record of the successful performance of essential duties, and if financial ease after periods of stress and storm have any weight, then it may be claimed that the hospital in its present state has flattered to the full those hopes in which it was conceived, brought to the birth, and reared.

The statistical tables supplied allow some comparison of the work, ancient and recent, and this comparison is very interesting.

Though the average residence at the expiration of the first half-century was somewhere about 40 of both sexes, and is now 130, the admissions at the former period were absolutely as well as relatively more frequent, being from 1801 to 1850 1512 in number, or averaging 30 a year, whereas from 1851 to 1900 they were 1323. This tells a tale told in other places—permanent care being gradually added to curative treatment as a function of the institution. The ratio of recoveries also bears out experiences elsewhere. The first 1512 supplied 780 (51·5 per cent.), the remaining 1323 only 465 (35·1 per cent.).

Curiously enough, the death ratio does not give the usual indications of active and critical disease such as is suggested by the foregoing figures. In the first half-century they were 140, in the last 274. Of course the discrepancy arises from the larger average residence in later years; nevertheless, after discount for this and other considerations, a death rate, which may be roughly computed to have been under 6 per cent.

of average residence, is a light one for a period of active movements and high recovery rate.

There are no means of making a financial comparison between various periods in the history of the hospital, though, from a table given by the Committee, it is seen that the income in 1900 was not far short of three times that of 1871. There is no question that now the institution is in a highly satisfactory position. It has a fair annual credit margin, which, while not so brilliant as may be found in similar establishments, is likely to be constant, seeing that a moderate average charge is eaten up by judicious expenditure to that extent which will leave profit enough to carry on the work comfortably and no more. The Committee and Dr. Deas are to be heartily congratulated on the results shown in the 1900 report.

Recovery Rate.

The recovery rate, according to the Report of the Commissioners in Lunacy, was 38·78 per cent. on the admissions during the quinquennium ending 1877, and 38·76 on that ending 1897, so that by this method of estimation the results of treatment remain practically stationary.

The proportions of recoveries, when calculated on the daily average number of patients resident for the same periods, are 11·54 and 9·99 per cent. respectively, showing a very considerable decrease.

The public, if impressed by these last figures, will probably begin to ask whether this is a satisfactory result for all the outlay and efforts that have been made in the treatment of insanity of late years. These statistics have even given one of our medical contemporaries a fit of the blues in regard to the alienistic outlook.

The report, fortunately, furnishes the *reductio ad absurdum* of these calculations, one asylum having a recovery rate for the year of 100 per cent. on the admissions, and a proportion of ·1 on the total number under treatment. How is it possible for an asylum to be so successful and yet such an utter failure?

Statistics over prolonged periods show that of admissions to asylums between 30 and 40 per cent. do recover, and it is therefore certain that any statement regarding a recovery rate

of 10 per cent. or thereabouts is misleading. The first calculation, on the admissions, approximates roughly with the facts; in the second calculation the percentage rises or falls with the duration under treatment, and is relative to this rather than to the recovery rate.

It is a question, therefore, whether it would not be better to reverse the statement of this table, and state the proportion (per cent.) of unrecovered cases to the total number under treatment. This would draw attention to the proportion of uncured cases remaining under care, and would not be mistaken by the public or any one else as a "recovery rate," productive of popular panic.

Of course the nearest approximation to a true recovery rate is afforded by Table IIA as designed by the Medico-Psychological Association. Unfortunately it is not compiled by all the asylums of the kingdom; but it would be interesting to work out such results as are trustworthy and obtainable from the statistics of such institutions as publish Table IIA. Here is an opportunity for discovering the real recovery rate in selected districts so far as asylum statistics can show it.

Certifying Insanity by Contract.

Boards of Guardians (we learn from the *British Medical Journal* of 24th August) are beginning to insert in the rules of the resident medical officers of Poor Law infirmaries a clause to the effect that Lunacy Certificates shall be signed without fee. Lunacy certification, in fact, is reduced to the same level with tooth drawing.

Magistrates under such an arrangement will probably find themselves handicapped in fulfilling the instruction to call to their aid *a* medical man; it is *the* medical contractor whose feeless assistance they will be expected to invoke.

The responsibility of the Guardians as employers of the contract certifier is an important point. If the contracting certifier commits a misdemeanour in certifying, will not the Guardians be responsible and punishable? The indictment of a whole board for misdemeanour would not be devoid of interest.

Part II.—Reviews.

Nervous and Mental Diseases. By CHARLES S. POTTS, M.D. London: Henry Kimpton, 1901. 437 pp., with an index and eighty-eight engravings.

THIS text-book, which is one of Kimpton's Series of Modern Text-books, edited by Bern. B. Gallaudet, M.D., is an introduction to the study of nervous and mental diseases, and is intended for students and practitioners. It is divided into two parts. The first, treating of nervous diseases, is contained in 393 pages of printed matter. The second, dealing with mental diseases, is contained in 42 pages.

After perusal of the contents of the book the strongest impression left is that it would have been infinitely better if the author had omitted entirely the section on mental disease in its present form. In his preface he laments the ignorance and neglect of the general practitioner as regards this department of medicine, and then he professes the hope that an "intelligent idea" of a most intricate and difficult class of diseases may be derived—from forty-two pages of sketchy description. Apart from the brevity of the section, however, there are unfortunately many other faults. It is true that the pathology of mental disease is still to a great extent unsettled, but many advances have been made of recent years, and thanks to the new methods of staining and preparing nerve tissues the pathology of the brain is not the closed book it was. But the author, except for one page on the naked-eye and microscopical changes in general paralysis, ignores all pathology in this section. The description referred to, taken from Bevan Lewis (*Ment. Dis.*, 2nd ed.), is delightfully simple. There is no doubt expressed. The whole progress of the disease is set forth once and for all under three headings, and the reader is left with the impression that the last word on that subject, at least, has been said. Under macroscopic changes the usual statement regarding the adhesion of the soft membranes to the convolutions finds a place. How long is this pathological myth to be perpetuated unmodified in our text-books?

The classification of insanity adopted by the author is that of H. C. Wood, and is largely based on ætiology. It is as good, perhaps, as any other provisional classification in the present absence of certain pathological data. It would be a pity, however, if those for whom the book is intended were to believe that "terminal" or secondary dementia was a merely functional mental disorder.

Paranoiacs, according to the author, rather often develop into general paralytics. Is this so? Are they suffering from true paranoia, or are they cases where the physical signs of paretic dementia have lagged behind the mental symptoms, only to declare themselves indubitably at last? And meanwhile, until such physical signs do develop, are they to be regarded as true paranoiacs?

The principle underlying this statement runs through the entire section. No note is taken of the pathological changes which must

underlie the physical signs and symptoms. The author seems to gather together a group of symptoms, usually correlated, convert the group into a clinical entity, and give it a name. Thus mania is one particular set of symptoms, melancholia another. How these arise apparently does not matter.

In the description of the physical signs of general paralysis no mention is made of the different modes of onset; in fact, owing to the extreme compression of the description, the reader is left with the impression that general paralysis is, as a rule, secondary to tabes dorsalis. There can be no excuse for writing of delirium tremens and *mania a potu* as one and the same thing; and surely some chronic alcoholics drift into dementia without passing through the stage of terrified depression with delusions and hallucinations described under chronic alcoholic insanity.

The description of puerperal insanity is compressed into a page. But this is not all. The term "puerperal insanity" is made to embrace the insanities associated with pregnancy and lactation.

If there was so great a pressure on space, the chapter on hysterical insanity might well have been omitted; and it will not be generally granted that masturbation has *no* causal relationship to the "insanity of pubescence."

The paragraphs on treatment, though brief, are on the whole more trustworthy; but are all maniacal private patients, when treated at home, to be "dressed in a combination suit of canvas, laced up the back," and kept in a room devoid of furniture except for a mattress? It is not by such confused compilations of symptoms and causes that a clear idea of the various forms of mental disease will ever be given. Without a morbid anatomy, and with no description of clinical cases to act as pegs on which to fix each group of symptoms, they must soon be confused or forgotten, and unless they have been set forth with absolute accuracy, the sooner they are the better.

The first section, dealing with neurology, is of quite a different standard of accuracy. Although here also everything is given succinctly, there is no lack of clearness. It opens with thirty pages descriptive of the anatomy of the central nervous system. Leaving out all "relational" anatomy and beginning with the description of a neuron, the author, aided by excellently planned diagrams, makes clear to the reader the tracks along which motor and sensory impulses travel, the position and purpose of the grey ganglionic masses, and the interconnection of the various parts. It is just what is wanted and no more, and the reader starts out with a clear picture of the structure and the working arrangement of the brain and cord. The mode of production of nervous symptoms, and the effects of destructive lesions in various situations, are next dealt with, and there is a good chapter on electro- and hydro-therapeutics.

As to the main part of this section, without aiming at originality of treatment and without undue theorising, it places before the reader a concise and thoroughly practical description of nervous disease. The classification of the groups of diseases is to a great extent based on anatomical considerations, and here the pathological changes are sufficiently described under each disease. The inequality of the two

sections is so marked that they might have been the work of different authors.

There is a good index. The engravings are clearly reproduced, and the letterpress is excellent; but the weight of the volume is excessive.

KEITH CAMPBELL.

Trattato di Psichiatria [*Text-book of Psychiatry*]. Del Prof. BIANCHI LEONARDO. Napoli: 1901. *Puntata I.* Octavo, pp. 170. Price l. 4.

This is the first instalment of a text-book of psychiatry that is being written by Prof. Bianchi, of Naples. It consists of an introduction and the first two chapters, which contain an anatomical sketch of the cerebral mantle and subcortical white substance, and an account of the physiology of the cerebral cortex. The second part, which is intended to form an introduction to the clinical study of insanity, is to deal with the investigation of the elementary symptoms of mental disorder and their significance. The third part, which will be the longest, is to contain an account of the individual forms of mental disease. The whole work is expected to constitute a volume of about 600 pages. It is being illustrated by numerous figures intercalated in the text. The fifty-four of these contained in this first part are excellently clear, of practical utility, and in most instances original.

In the Introduction, which extends to twenty-two pages, the author chiefly expounds his views upon the subject of the parallel phylogenetic increase of the nervous organs and psychical processes. In his account of the structure of the cortex and cerebral functions he differs in several particulars from the orthodox teaching, on the ground of personal observations. Thus he denies that the anterior part of the frontal lobe, the anterior associative zone of Flechsig, gives rise to fibres of projection, maintaining that it is connected by long association fibres with all the other parts of the cortex, and that it is the organ of the physiological fusion of all the sensory and motor products elaborated in the other cortical provinces. He subjects the views of Flechsig to much adverse criticism, and contends that the "associative centres," with the exception of those of the frontal lobes, are merely evolutional zones, each of which belongs to the perceptive field of one of the special senses.

There can be little doubt that this first instalment of Prof. Bianchi's book amply fulfils the expectations that have been formed regarding it in view of the valuable nature of the contributions already made to neurological science by the author, and the high position he occupies among Continental alienists. The work bids fair to be one of very considerable importance in psychiatric literature. It follows no conventional lines, but, throughout this first part at least, is stamped by originality and even boldness of conception. It is exactly the kind of work which, even though many of the opinions expressed in it will certainly not find immediate acceptance with the majority of readers, serves to place familiar problems in a new and suggestive light, and so tends strongly to stimulate progress in the department of practical science with which it deals. A perusal of this first instalment leaves

the conviction that it is eminently desirable that the contents of Prof. Bianchi's book should, as speedily as possible, be made available to every British alienist by means of a careful translation.

W. FORD ROBERTSON.

Einführung in die Psychiatrische Klinik [*Introduction to Clinical Psychiatry*]. Von EMIL KRAEPELIN. Leipzig: Barth, 1901. Pp. 328, 8vo.

Prof. Kraepelin has the rare distinction of possessing equal eminence in the scientific investigation of morbid psychology and in the study of its practical and clinical aspects; he is known for his persistent attempts to introduce greater clearness and precision in nomenclature and classification, as in the extension he gives to the conception of "dementia præcox" and katatonia, to "paranoid" states and maniacal depressive conditions; he is, moreover, the author of a text-book of psychiatry, now in its sixth edition, which in Germany is regarded as a kind of classic.

The present volume is not an attempt to boil down the larger work, nor is it in any sense a text-book. It is strictly a series of demonstrations of clinical cases set forth in the form of thirty lectures, each devoted to some particular form of disease—epileptic insanity, katatonic stupor, puerperal insanity, mixed maniacal depressive conditions, katatonic excitement, alcoholic mental disturbances, chronic alcoholism, morphinism and cocainism, senile dementia, etc. The lectures are very clearly and simply written, so easily and fluently that a careless reader might possibly suppose them to be casual and hasty productions. Yet they withstand the most careful critical examination. It is, indeed, only after careful reading that it is possible to realise how much unobtrusive literary art, as well as wide knowledge and sound judgment, has gone to the composition of these clear and simple lectures. Usually the lecture begins with a brief but vivid and precise description of the case which is supposed to be before us; then follows the history; and then the considerations suggested by the case, without any direct reference to the opinions of other authorities. Usually one or two other cases are then brought before the reader in the same way, to illustrate further aspects or later stages of the same disorder. A foot-note states the final issue and present state of the case, and these notes show that the cases are selected over a period of ten years.

A brief introduction is furnished to the lectures, as well as a conclusion. The former is noteworthy as containing the author's expression of belief that there is a real increase of insanity among the population in Germany, and not a mere absolute increase; in the latter he suggests that as our knowledge of the causation and mechanism of insanity increases one may possibly find that various forms are to be explained, in the same way as cretinism is to be explained, by the formation of a poison in the organism; such a poison, it is suggested, may be the link between syphilis and general paralysis, the direct action of syphilis not being sufficient to account for the facts, since general paralysis is not amenable to antisyphilitic treatment. He

is inclined to sympathise with those who would similarly explain epilepsy as due to a poison generated in the organism, while admitting the difficulty that we do not know whether, or how far, epilepsy can be regarded as a simple disease.

We can scarcely hope to see an English translation of these lectures, for the history of German cases would not among us greatly appeal to the student, for whom such books are alone supposed to be written. In reality, however, it is scarcely a book for students, who may more profitably follow the actual demonstration of living cases. But the alienist who is sufficiently at home in German to follow this admirably written volume will certainly find keen satisfaction and stimulation in thus being brought into close contact with one of the masters of psychiatry. HAVELOCK ELLIS.

Die periodischen Geistesstörungen [*Periodic Mental Diseases*]. By Dr. A. PILCZ. Published by Gustave Fischer, Jena, 1901. 8vo, pp. 210, with 57 curves in text. Pr. 5 m.

The writing of monographs on all varieties of medical subjects seems at the present time to be much in vogue in Germany. In many respects this practice has much to recommend it from the specialist's point of view, but it has its dangers. Where the subject is well worn, and when little fresh knowledge has recently been acquired in respect of it, the writing of a special treatise lays the author open to the temptation of straining after novelty by magnifying unimportant details, or of over-refinement in classification, which after all adds little to a real knowledge of the nature of a disease or to our means of treating it. Dr. Pilcz's treatise, while containing much that is of value, is not wholly free from this blemish.

As it is well recognised that most forms of mental disease have a distinct periodic tendency, it is absolutely necessary to define those to which the title of the book is restricted. This the author does in his preface, where he gives the following definition :—" By periodic psychoses I mean only those forms of disease whose individual attacks recur without known external causes, with the same train of special symptoms, and with regular periodicity. In this class two forms are included : firstly, those exhibiting a more or less regular repetition ; and secondly, those in which, when once the mental disturbance has manifested itself in a special series of symptoms, the individual attacks resemble each other (to a certain degree.)" In other words, the parallelism may be one of time or of manner. It will be seen subsequently what forms of insanity this definition includes.

The first chapter consists of an historical review of the subject, and it is shown that periodic forms of insanity have been recognised for a very long time. The second is concerned with ætiology, which is considered under various headings. These include frequency, age, sex, heredity, cerebral injury or gross disease, bodily disease, and mental shock. As to heredity, all authorities are agreed in regarding it as of predominating importance. The author's own investigations place the percentage of cases exhibiting it at about 57. Of the

various forms of periodic insanity, *folie circulaire* appears to take the lead in this respect.

The next eight chapters are devoted to the consideration of the various forms of periodic insanity. These include *folie circulaire*, periodic mania, melancholia, amentia, or acute hallucinatory confusion, paranoia, impulsive insanities, delirious confusional states, and insanities of secondary origin. A chapter is devoted to each of these. As is natural, *folie circulaire* comes first, and occupies the largest space. It is the typical form of periodic insanity, and is regarded by many as the form to which all the others may be relegated. In mental disease it is always dangerous to strain symptomatology too far as a basis of classification owing to our ignorance of its pathology, and to the amazing variability of the symptoms in individual cases. The author gives a full description of each of the varieties he has felt justified in naming, and also illustrates each group with detailed accounts of cases as examples. Attention is also given to diagnosis, ætiology, and treatment.

The eleventh chapter is devoted to a description of the bodily symptoms which are usually found. This is a most useful and suggestive chapter. General nutrition, the circulatory and respiratory systems, digestion, excretion, and the nervous system are passed in review. One of the most interesting sections in this chapter is devoted to the consideration of the pulse, which he has himself carefully investigated. In *folie circulaire* he has found that during the maniacal stage the pulse is quicker and has a lower tension, while in the melancholic stage it is slower and has a higher tension, than during the interval of sanity. It is interesting to compare this with the experience of Dr. L. C. Bruce (1) in cases of ordinary melancholia. The latter found both rate and tension increased in the acute stage, and both fell as convalescence was established. It would be of importance to know whether this is a distinctive character of the two forms of melancholia, and if it is what is the cause of the difference. Another interesting point which the author investigated is the examination of the urine. He tested it in a number of cases for albumen, albumose, acetone, diacetoacetic acid, and indican. In all those tested he found none of these abnormal constituents during the lucid interval, while one or other of them was present during the maniacal or melancholic stage. None was characteristic of any particular stage in all cases, but for each case the abnormal constituent was characteristic for the various stages. He concludes that this points to a disturbance of the chemical processes of digestion and nutrition. In some cases he was even able to predict the transition from one stage to another of the mental cycle by an analysis of the urine. This is the strictest test of a scientific truth, and hence is a fact of the utmost importance. It points, as he suggests, to a toxic element in periodic insanities, as has been done in some other forms of mental disease.

Two chapters follow in which are discussed bodily diseases associated with periodic insanity, and the combination of the latter with other psychoses and neuroses. The last chapter is devoted to pathology. Unfortunately the author has to confess that there are as yet no pathological features characteristic of this disease. In a considerable number

of cases there are no naked-eye changes at all, while in those which do exhibit them the changes are not uniform. The commonest diseased process was softening. It was further observed that it was only in those cases which had exhibited impairment of intelligence that some gross lesion was found. There is no record of any systematic microscopic examination of the cortex, which, of course, is a fatal omission. The book closes with a very extensive and apparently complete bibliography, which includes 724 separate references.

JAMES MIDDLEMASS.

(1) *Journal of Mental Science*, Oct., 1900.

Traité de Thérapeutique des Maladies mentales et nerveuses. Paul Garnier et Paul Cololian, 1901.

The purpose of this treatise is to place treatment in the foreground without abandoning the clinical aspects of disease. Accordingly, the salient features of the several nervous affections are set forth, along with the special modes of treatment adapted to each case. The method is an excellent one, but we think that it might with advantage have been elaborated still more on the therapeutic side.

An historical chapter develops in outline the march of the therapeutics of mental affections from prehistoric times down to our own days. Needless to say this outline is very sketchy, and we miss some important figures. Thus, whilst Pinel deservedly takes a foremost position, we find no mention of the foundation of the York Retreat in 1792 by William Tuke on principles similar to those which guided the great alienist, yet independently of him. This criticism is not to detract from the glory of Pinel, to whom we owe so much, including even, according to our authors, the nasal feeding of the insane (see p. 24).

General therapeutics occupy a separate section, and deal with the management of the insane and with such questions as isolation, non-restraint, the open doors, confinement to bed, etc.; also with the treatment of the insane in colonies, as at Gheel, Lierneux, and Dun-sur-Auron, and the treatment in special asylums of the criminal lunatic, the epileptic, the idiot, the hysteric, and the alcoholic. Under the heading "Société de Patronage pour les Aliénés guéris" we find another omission, viz., no mention of the After-care Society, which has existed in England since 1879. France, of course, led the way by many years in this noble work, but when we are told that Germany, Belgium and Italy possess analogous institutions, we might expect to find mention of our own society.

The chapter on alimentation is very slight; upon it follows treatment by drugs.

Under bromides we should have expected some mention of the more recent attempts to convey bromine in organic combination with albumen or peptone (bromo-eigon), with oil (bromipin), with some of the fatty acid series (bromalin). Chloralamide we find described as an indifferent hypnotic, and as *dangerous*. Paraldehyde is stated to be but little prescribed nowadays, and a drug of small value. These dicta will scarcely represent prevailing opinion here. Under the classification "tonics" we find arsenic; with this arrangement we need not quarrel, for every

one has his own definition of *tonic*, but we learn with some surprise that Fowler's solution is "a bad preparation of arsenic."

Physical agencies include hydrotherapy and electric treatment. The former makes only a passing reference to the prolonged use of baths. Hypnotism finds its place under "les agents psychiques;" the authors confine its use to the hysterical condition; they warn us that it is by no means a treatment without danger, and they insist that it must be used only when other means have failed, and when the consequences liable to be evoked by the method are of less importance than the hysterical troubles under consideration.

We are surprised to find no reference to the treatment of the dipsomaniac by suggestion, or of the morphinist by the same means. True, the confirmed alcoholic or morphinist is a very hopeless case, but this applies to nearly every form of treatment, and is no reason for excluding hypnotic suggestion as one means of attacking the disease.

The concluding and longest section of the treatise deals with the various mental and nervous affections *seriatim*, the special treatment belonging to each following the description of the disease. Troubles not usually regarded as belonging to the alienist are here considered, *e.g.*, Graves' disease, the various forms of chorea, paralysis agitans, certain toxic affections, also alcoholism and morphinism. The last named is dealt with at some length, and Levinstein's method of cure by *sudden* suppression is given the preference, except where the morphia doses have reached a very high figure and the condition of the patient is greatly reduced; in such cases the *rapid* suppression advocated by Erlenmeyer is advised.

Certain important symptoms which may attend this or that affection quite independently of its nature receive special consideration in separate chapters, *e.g.*, the refusal of food, the suicidal tendency, insomnia. The plan and method of the book is excellent, but one could wish for a fuller treatment here and there, and this might be attained without a considerable increase in the size of the volume if care were taken to condense as much as possible. Moreover it would be feasible, without sacrificing anything of the plan of the treatise, to forego the historical chapter.

HARRINGTON SAINSBURY.

Report of Drs. Mott and Durham on Colitis or Asylum Dysentery. Presented May, 1900; ordered to be printed by the Asylums Committee, November 13th, 1900.

We have been favoured with a copy of this Report, and we experience some difficulty in deciding which is the best way of dealing with it. It is impossible, in the short space of a review or digest, to give a synopsis of any value, the information already being considerably condensed. On the other hand, any comprehensive criticism we are reluctant to undertake. In the first place, we cannot altogether see what induced the Asylums Committee to order its publication. Not that we desire in the least to belittle its importance, but much of it, we should think, is of purely local interest. Up to now the medical press appear to have strangely misunderstood Dr. Mott and his colleague, and have omitted to make

mention of some of the most important points contained in their Report. They have responded in an alarmist's spirit, without sufficient grounds we think, and have raised a great outcry against certain defects in the administration of the London county asylums, which our authors, in the course of their inquiry, had to point out. We feel sure that if those who authorised the publication of this Report had surmised that the medical press would have taken up the attitude they did, they would have postponed its publication until the superintendents' remarks in reply to the criticisms made regarding their asylums could have been added.

We wish to state at once that we welcome this Report as another evidence of the enlightened, scientific, and progressive spirit of the London County Council regarding the care and treatment of the insane, and we trust that this will be borne in mind when any of our remarks appear critical. Regarding the first part of the work, that dealing with the pathology, symptomatology, etc., of asylum dysentery, we can only give it unqualified praise as being a clever and exhaustive exposition of a difficult disease, hitherto only meagrely described. It is a fact, and we can personally vouch for it, that it is possible for cases of diarrhœa to be clinically trivial, yet afterwards prove to be of a serious and probably highly infective nature; and on the other hand, as if Nature were making sport of a disease, it is possible for another case to present most serious and distressing symptoms clinically—to have many fœtid, blood, and mucous stools,—yet to present but a trivial lesion pathologically. This knowledge increases tenfold the difficulty in handling diarrhœal cases in asylums. We are more interested here in Drs. Mott and Durham's findings and conclusions. As a result of their investigation they place asylum dysentery or colitis amongst the "acute infective diseases." No greater task can be undertaken than to definitely and indisputably prove a disease to be infective. We regret we cannot report to our readers a very great measure of success in their endeavour to drag together conclusive data on this point. After weighing up the evidence they present, our feeling is that they have made a very fair case for infectivity, although there are some people who will dispute this. One of the most striking outbreaks investigated occurred in a dormitory in which eight out of ten cases slept in adjacent beds; there are many other striking data. In places, however, we feel that our authors labour their point. Dr. Mott and his colleague deserve much praise and congratulation for this part of their Report; it is the innate difficulty of the problem itself that is to be blamed for any lack of satisfactory proof regarding the infectivity of this disease; if it was obtainable, we feel sure they could not have failed to bring it to light, and we trust that they will continue their valuable inquiries, and that this Report is by no means final. In our own minds we felt strongly that colitis was a definitely infective disorder; but we could not establish it, and, although we are thankful for the much valued evidence brought forward in this Report, yet we hunger for more, and shall require more before our minds are completely satisfied. We welcome the dispersion of certain ideas regarding colitis. We agree with them when they state that this disorder is not related to any one class of mental disease, and also when they reject the idea that it is due

to changes in the nerves of the intestine. We would gladly inspect any microscopical section demonstrating the latter.

Coming now to the "recommendations:"—The "infectivity" having been pronounced, then the natural solution is "isolation," which must be thorough to be effective. This, together with suggested improvements in general hygienic surroundings of patients, is conveyed in twenty-four recommendations. Some of these have only local interest. Only the main ones can be noticed here. Regarding "density of population," we note that Dr. Mott and his colleague suggest that every effort should be made to relieve any overcrowding, adding a remark to the effect that this is a most difficult matter, and that it is engaging the earnest attention of the Asylums Committee. We note this purposely, seeing that certain sentences standing forth in large capitals (unnecessarily, we think, other sentences being much more deserving) have attracted the attention of certain journals, causing them to be unusually disturbed. We take it that our authors mean that overcrowding increases the risk of infection rather than predisposes to the disease they were investigating. We readily give publication to the suggestion that all beds and side rooms should be numbered. We may suggest also a nightly record of the position of patients as regards sleeping, which is carried out successfully in some asylums. We cannot emphasise too deeply the request that these cases should be well recorded clinically. They recommend that one or more wards (preferably an isolation block) should be used for patients suffering from dysentery or chronic diarrhœa—a minimum time of fourteen days is suggested as the period after cessation of diarrhœa that these patients should be considered infective; but little can be added to their very complete recommendations regarding disinfection and nursing. Regarding certain suggestions appertaining to general cleanliness, we cannot help agreeing with them; on the other hand, we are decidedly of the opinion that the standard of cleanliness maintained in asylums is a very high one, and that it would compare very favourably with that of other institutions. It would be interesting to obtain an accurate record of the diarrhœa which occurs at some of our great Union workhouses, together with the record of the lesions found in the intestines after death.

In conclusion, we expect some practical difficulty in the carrying out of prompt isolation of diarrhœal diseases. Even the slightest cases of diarrhœa—a few loose motions—may apparently be highly infective; and if every such case is to be promptly sent to the dysentery ward or block and kept there for fourteen days, then surely the latter portion of the building will need to be a large one, and cases of simple diarrhœa must run a risk of contracting a dreadful disease like dysentery. We certainly think that in this portion of the building separate provision ought to be made for suspected cases, undoubted cases, and those convalescing.

Eye Diseases and Eye Symptoms in their Relation to Organic Diseases of the Brain and Spinal Cord. By HENRY R. SWANZY, A.M., M.B., F.R.C.S.I., Surgeon to the Royal Victoria Eye and Ear Hospital,

and Ophthalmic Surgeon to the Adelaide Hospital, Dublin. Copyright, 1899, by J. B. Lippincott Company, pp. 106.

This is a reprint in book form of a section which was contributed by Dr. Swanzy to the fourth volume of Norris and Oliver's *Diseases of the Eye*. Dr. Swanzy deals with the organic diseases of the brain according as they are focal or diffuse, and the focal diseases are subdivided according as they are accompanied by an increase in the intracranial pressure or not. The various derangements of the visual function, or eye symptoms, which appear in these diseases are grouped according to their significance as (1) general or diffuse, (2) direct or localising, and (3) indirect or distant; and these are considered in detail in connection with the particular disease or lesion with which they are associated. Most attention is given to those symptoms which are of value in indicating the locality of the brain disease. The work is thus of a kind which does not lend itself suitably to a short summary or review. Indeed, it is rather a book of reference, and it may be sufficient to say that Dr. Swanzy treats his subject fully and methodically, and that much valuable information is given regarding the character, significance, and probable mode of origin of the various eye symptoms in brain disease. While it is more specially serviceable to the general neurologist, there are in the book certain sections in which the alienist physician is directly interested, such as the account of the eye symptoms found in general paralysis, epilepsy, and amaurotic idiocy. Under general paralysis of the insane there are described the various abnormal conditions of the pupils found in that disease, and the occurrence of paralysis of the orbital muscles, atrophy of the optic disc, and mind-blindness. Under epilepsy reference is made to the view that an abnormal condition of the refractive media of the eye may at times prove the exciting cause of the disease, and that treatment based on that view may be of service in curing or relieving the epileptic condition. The section on diseases of the spinal cord is devoted mainly to the eye symptoms in tabes dorsalis, and Dr. Swanzy is inclined to think that the full value of the Argyll-Robertson pupil as a very early premonitory symptom of general nervous disease has not yet been fully appreciated, and that it plays this *rôle* more frequently than is usually recognised.

Part III.—Epitome of Current Literature.

1. Anthropology.

A Degenerate of the Anthropoid Type [*Un degenerato anthropoide*]. (*Riv. mens. di Neuropat. e Psichiat., Dec.*, 1900, *Jan.*, 1901.) *Giannuli and Maiano.*

The patient, a man 44 years of age, had neuropathic heredity on both sides; father and paternal grandfather alcoholic; mother weak-minded; cousin on mother's side insane. Patient was nursed by a

syphilitic woman, and he received a severe head injury in infancy. He learned to walk at five years of age, and was able to pronounce monosyllables at six years. Puberty was normal. He practised sexual intercourse from age of fifteen, and had a child by his mistress. He led a vagrant life, and was sent to asylum in consequence of his aggressive sexual conduct.

The anthropological examination of the patient showed a large number of deviations from the normal, most of them being in the direction of a prehuman type—*e. g.*, head (maxim. horiz. circumf. 530 mm., ceph. index 82·08) oxycephalic, with median sagittal crest prolonged in line of metopic suture; lateral occipital crests strongly marked; supra-orbital ridges of a prominence recalling the Neanderthal skull; hair growing low on forehead and nape of neck; narrow oblique palpebral fissure, with wrinkled lids; marked development of caruncle; platyrhine nose; prominent malars; projecting lips; prognathism; excessive development of central incisors; diastema in both jaws; Wildermuth ears; simian type of pelvis, with feeble development of gluteal muscles. There was a remarkable predominance of action of the flexor and pronator over the extensor and supinator muscles, shown in characteristic coiled attitudes when at rest, and in the limitation of certain movements, *e. g.*, supination of hand and forearm with extension on a flat surface, finer movements of opposition of thumb. The gait was simian. The facial and cervical muscles of expression showed a marked tendency to excessive associated action, *e. g.*, grinding of teeth was accompanied by vigorous contraction of the enormously developed *platysma myoides.* The psychic functions were expressed in very primitive and elementary forms, but without perversions. Full anthropometric details are given, and the facial and cranial characters are shown in two photographs.

Commenting on the case, the authors point out that while in most observations of degeneracy there is a discordant mixture of atavistic and pathological characters, in their patient there existed, on the contrary, "a harmony in the anatomical, functional, and psychical conditions, representing together a complex of characters to be met with not only in European children and in the races on a lower plane of evolution, but also in the anthropoid apes." They accordingly class the case as an instance of Sergi's "prehuman and bestial atavism." Consistent with the purely reversive character of his organism, the patient, it is to be noted, had a normal procreative capacity, thereby differing importantly from the degenerates of the more purely pathological types. W. C. SULLIVAN.

Preliminary Note on the New Hereditary Character (Second Toe Longer than Hallux) in the Foot of Criminals [Cenni preliminare sul nuovo carattere ereditario (prevalenza del secondo dito sull' alluce) nel piede dei criminali]. (*Arch. di Psichiat., vol. xxii, fasc. iii,* 1901.) *Frassetto.*

Having noticed that in nearly all the skeletons of criminals in Lombroso's collection the second toe was longer than the hallux, the author was led to examine the relative development of these digits in

normal individuals, children, and several classes of mammals. He finds that in passing from the Monotremata through the various orders up to the Primates, there is a progressive growth of the hallux, reaching its maximum in man. Thus a plane touching the tips of the hallux and second toe looks outwards (distal slope) in man, inwards (proximal slope) constantly in the other mammals, and frequently in some savage tribes, in criminals, in children, and in the fœtus. The author concludes that in criminals there is an incomplete development of the hallux—an atavistic condition. W. C. SULLIVAN.

The Anatomical Stigmata of Degeneracy [*Les stigmates anatomiques de la dégénérescence*]. (*Gaz. des Hôp., Jan. 5th and 12th*, 1901.) *Mayet.*

This paper gives an outline of the current ideas regarding the nature of degeneracy, and enumerates some of the chief anatomical conditions considered as characteristic of it.

The author defines degeneracy as "a hereditary state of lessened physical and moral perfection, tending to sterility and the rapid extinction of the degenerate individual and his stock."

The stigmata of degeneracy—isolated or found in syndromes—are divided into (1) anatomical; (2) physiological; (3) psychological; and (4) sociological.

Discussing the anatomical stigmata, the author emphasises their teratological nature; they are due to defective development of the embryo, dependent on one or more of the various causes capable of producing grave disorder in the fœtal organism. The number of such causes operative in city life explains the great frequency of these stigmata in the urban population—a frequency which has led some writers to throw doubt on the significance of the stigmata. The author has found from personal observation that they are far less common in country dwellers, particularly in those who are healthy.

The stigmata met with in the different regions of the body are summarily described, with illustrations of the more important. A list of references to the literature of the subject completes the paper.

W. C. SULLIVAN.

Note on Prints of the Palm of the Hand and of the Sole of the Foot [*Note sur les empreintes de la paume de la main et de la plante du pied*]. (*Comptes rendus de la Société de Biologie, June*, 1900.) *Féré.*

This is a short note, illustrated by a figure in the text, on the arrangement of the papillary lines in the regions mentioned. In general the lines on the palm are parallel to the creases of opposition of the thumb, and to the creases of flexion of the fingers; but this arrangement is commonly modified in certain situations, *e. g.*, by loops continuing the transverse ridges of the fingers or (more often) stating from the interdigital spaces, by loops also on the thenar eminence, and by loops or more complex figures on the hypothenar eminence.

These arrangements—and analogous arrangements on the sole of the foot—have been interpreted as representative of prehuman conditions.

The author refers to fuller treatment of this point in articles contributed by him to the *Journal de l'Anatomie et de la Physiologie* (1900).

W. C. SULLIVAN.

Fliess's Nose-Gospel, or Fliess's Theory of the Relation of Nasal Neuroses in Women to Diseases of the Genital Organs [*Die Nasen-Messiade von Fliess*]. (*Wiener med. Wochenschr., No.* 8, 1901.) *Benedikt.*

Benedikt discusses in a critical spirit the recent observations of Fliess, confirmed by Schiff, indicating the dependence of certain nasal neuroses on diseased conditions of the female genitalia.

While admitting the accuracy of the observations, Benedikt takes exception to the theories built upon them. The presenting of these theories he regards as an example of a tendency prevalent amongst contemporary writers to—in his graphic phrase—"confuse the results of their mental masturbation with the products of legitimate mental begetting." He points out that the best corrective of this tendency is to look at the questions at issue under the historical angle of vision, which is apt to make discoveries and theories shrink in importance.

Applying this method to Fliess's observations, the occurrence of hyperæsthesia of the nasal mucous membrane in conditions of genital disease is reduced to an instance of irradiation, of "co-sensibility" (*Mit-Empfindsamkeit*), similar to the phenomena of cutaneous hyperæsthesia in visceral disease described by Head, and to the symptoms formerly spoken of as "spinal irritation."

Again, the occurrence of nasal congestion at the menstrual periods is, in the same way, taken as a particular instance of a large class of phenomena of "co-affection" (*Mit-Ergriffensein*) of which the "sympathising inflammations" of the older authors are other examples.

The mechanism of these two orders of phenomena is still uncertain. Benedikt suggests that it is involved in the larger problem of the harmony in growth and in nutrition of the different parts of the organism. Some of the factors of that problem—notably the origin of the entire organism from a single fertilised ovum, and the mutual influence of the organs through their internal secretions—can be divined; but at least one unknown factor remains, and is probably to be sought in the nervous system. The author promises an early communication of personal researches on this point.

Finally, the observation that the nasal condition is relieved by treatment directed to the genital disease is to be brought into line with such familiar clinical facts as the action of blisters, the cautery, etc.

Benedikt's general conclusion is that a detailed study of any organ would give similar results to those found by Fliess in the case of the nose.

W. C. SULLIVAN.

2. Neurology.

Influence of the Blood of Maniacal and Melancholic Patients on the Development of the Embryo [*Influence du Sang des maniaques et des hypomaniaques sur le développement de l'embryon*]. (*Rev. de Psychiat., March*, 1901.) *Ceni, C.*

This paper, a translation from the Italian, records the results of a series of experiments on the development of the embryos of eggs after inoculation with the blood from patients suffering from mania and melancholia.

The intra-albuminous method of Féré was employed, and ½ c.c. of blood-serum injected.

Three cases of mania were experimented with. In the first two cases of mania tried the results were negative; the third case, however, gave entirely different results. In two series of experiments with the serum of this case the first series gave no normal embryo, the second series 6·66 *per cent.* normal, while the control eggs gave 87 *per cent.* and 86·28 *per cent.* respectively; 60 *per cent.* of the above abnormal embryos showed distinct arrest of development.

The author has noticed this arrest of development in experiments he made with epileptic blood, and considers it due to a toxin in the blood, which has the power to influence development. In the three cases of melancholia tried, two gave negative results; the third case, more severe than the other two, gave 7·67 *per cent.* of normal embryos, while the control experiments showed 88·7 *per cent.* normal. The greater number of the above abnormal embryos showed red spots scattered along the primitive nervous axis, most numerous at the cephalic extremity; in most cases the blood circulated normally in these red spots, which were varicosities of the vessels, but some of them appeared to be ordinary hæmorrhages. These spots were shown microscopically to be due to rupture of primitive veins and arteries. The extravasation of blood was found in the mesoderm alone.

Dr. Ceni concludes that some substances circulating in the blood of the patient suffering from melancholia on introduction into the embryo produce weakness of the mesodermal tissues; the blood-pressure then causes the varicosities and extravasations of blood.

BERNARD STRACEY.

On the Toxicity of the Urine in the Sane and in the Insane [*Sulla tossicità dell' orina nei sani e negli alienate*]. (*Riv. Sperim. di Freniat., fasc. iv*, 1900.) *Stefani, U.*

This research was conducted with improved technique to eliminate certain errors and to permit of a truer comparison being made. Endovenous injections were used. In the larger series of experiments the urine was either diluted or concentrated to a uniform density of 1030. The rate of injection was also uniform, 1·5 c.c. per minute for each kilogramme. The toxicity was then calculated. The principal results were—(1) lethal action; during the course of any mental disease there were great irregularities in the elimination of toxic substances. These irregularities constitute the true differential charac-

teristic between the lethal action of normal urine and that of the insane. (2) Special actions; these are qualitatively the same in the two groups of cases, except that some of the urines from the insane have an antidiuretic power. The myotic power is frequently increased in the insane. The convulsive producing power is often marked, and in cases of *folie circulaire* is present even when the patient is well.

There exists a relationship between certain actions of the urine—myotic power and antidiuretic power; and certain clinical signs—contracted pupils and increase of the density of the urine.

J. R. GILMOUR.

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3. Physiological Psychology.

The Psychological Geography of the Brain Cortex and the Doctrine of Flechsig [*La Géographie psychologique du Manteau cérébral et la Doctrine de Flechsig*]. (*Reprint from Rev. de Psychol. clin. et thérapeut.*, 1900.) *Bianchi, L.*

Professor Bianchi claims to have pointed out seventeen years before Flechsig the existence of zones of association in the cortex. He recapitulated the views of the German professor already explained in this JOURNAL, and observed that Flechsig assigned to his anatomical researches a much greater importance than they really merit. He puts the question, Does the myelinisation of the fibres of the hemisphere follow a constant law? And if this be admitted, are we warranted in believing this geographical anatomy of development to be the foundation of a species of psychological geography? To judge by the changes which Flechsig has made in his own scheme, it does not appear that the complete development of the nerve-fibres occurs in an order so constant as to justify the inferences he makes upon them. Bianchi thinks that we may logically hold that the zones of association are but zones of perception arrived at a greater degree of development. He observes that it is not probable that there are in the brain cortex distinct areas set apart for sensations and the memory of these sensations. He thinks that the large portion of the brain in the occipital and parietal lobes has a visual function, and that in the anterior portion are registered the visual images which have associated the images of the graphic signs of words. All the large area of the cortex, called by Flechsig the parietal association zone, is nothing else than a portion of the hemisphere destined for the visual function in all its degrees, from the simplest to the most complicated. The perception of light has its seat in the calcarine fissure, the cuneus, and the occipital pole; while the oculo-motor functions, and the perception of the images of objects and the graphic signs associated with them, the more ideal products of mental activity, are recognised in the anterior portions of the visual sphere. Dr. Bianchi thus goes on:—"Nothing authorises us to regard this region of the cortex as the anatomical substratum of the highest intellectual processes in which are associated the images furnished by the different areas of perception and sensation,

because no clinical observations hitherto published are favourable to such a hypothesis. If, with bilateral lesions of the occiput in addition to the mind-blindness, a state of dementia more or less deep is also observed, we may suppose that in such cases the dementia is occasioned by the loss of that large part of the intellectual estate which is constituted by the visual images of the outer world. On the other hand, it is not enough to affirm that abnormal excitement of a sensory zone brings with it hallucinations, and that irritation of the so-called zone of association induces mental confusion, for as yet there are no proofs furnished by pathological anatomy to confirm such assumptions."

Bianchi does not think that the histological examination of the brain supports Flechsig's views about particular zones of association. We have known, since the researches of Meynert, that the occipital lobe has always presented an essentially complex structure (seven layers instead of five in the motor zone). Ramon-y-Cajal has declared that microscopic sections of the different zones—sensory, motor, and associative—can be distinguished at a glance. Nevertheless Bianchi thinks that we are not justified in attaching to these not well-marked differences in structure, such different functions in the way Flechsig does. The structure of the perception areas should be simpler than that of the association areas; but this is not found to be so. Bianchi observes that Flechsig's view, which assigns to his posterior zone of association the highest intellectual dignity, is refuted by the simple fact that grave dementia often follows the word-deafness caused by a lesion of the first temporal convolution. This part of the sphere of language is comprised within the limits of Flechsig's area of auditory sensation and perception (primordial territory, No. 7, and partly in the intermediate territory, No. 23). After this fact it is impossible to assign distinct areas to the functions of hearing in general and that of the hearing of words in particular. It seems rather that the two functions occupy the same zone (superposent), though there is a marked predominance on the left to the function of language. "In my opinion," adds Bianchi, "few regions of the cortex have such numerous and extensive connections with the rest of the brain, and are so intimately connected with mental activity, as the first temporal convolution of the left hemisphere."

In reference to the motor zone, the Italian professor observes that there is a countless series of movements which are executed from the data of our perceptions; and this being so, what we call the motor zone must also be the zone of association much more than Flechsig's great posterior inferior zone, because the former utilises the data of all the sensory zones situated behind or below. Nevertheless the fibres of the motor zone are the first to have the myelin sheath. Evidently the fibres which first become matured are not the only ones which reach the motor zone, and if, in the course of development, many other fibres reach it from all the other points of the cortex, of what value is the distinction between the zones of projection and the zones of association? Dr. Bianchi holds that in front of the motor area up to the border of the frontal gyri there is what he calls the area of evolution of the motor zone. Here he places the centre of writing, which, however, is still in the way of formation, because humanity

has only taken to writing for a very short time. The brain, he tells us, is in a state of perpetual evolution. If Bianchi means that a new anatomical area or areas with a new function have been evolved in the human brain within historic times he is going far in advance of any evidence. Déjerine has objected to a centre for writing in the left hemisphere allowing us to write with the left hand. Indeed, men can learn to write with the foot. To which Bianchi replies that to establish a centre one must learn to write easily and rapidly. Still this might be acquired by constant practice with the foot. I have seen a man without arms copying pictures in the Brussels Gallery with the brush between the toes. Bianchi, however, admits that the graphic centre may change its locality with individual circumstances. We thus arrive at the view that particular exercises forming particular aptitudes have a tendency to annex particular portions of the brain cortex.

The Italian physiologist does not seem averse to follow out his own line of argument, and admit that centres may be found for playing on the piano and other acquired accomplishments. And why not centres for singing, archery, shooting, or bicycling? That such aptitudes should permanently connect themselves with areas of the cortex and form centres permanently attached thereto will not be readily received.

Bianchi argues at length, that the frontal lobe is the organ of the physiological fusion of all the sensory and motor products elaborated in the other regions of the cortex, where the different sensory and motor functions have their respective seats. It is the organ of the conscious and historical synthesis of the two great factors of mental life, the one somatic or emotional, the other representative and intellectual.

Bianchi argues strongly against the view that the frontal lobes are the organs of inhibition. He finds a difficulty in seizing upon the meaning of this theory. He cannot think that the power of inhibition is a specific function exercised by some organs of the nervous system upon other subordinate organs. In his opinion, every organ of the nervous system, and especially every part of the cortex, can at different times be a centre of inhibition or an inhibited organ. Every time that a centre of perception enters into intense function under the influence of an adequate stimulus, it becomes by reason of its increased activity a centre of inhibition to the other organs with which it has anatomical relations. The sight of a picture which astonishes us, of a spectacle which pleases us, or the reading of a book which interests us, puts in a state of tension one of the cerebral areas, the visual zone, and the frontal lobes. But while the visual zone is thus active, a feeble noise, which in a state of repose would be heard, is now unheeded, because the auditory centre is inhibited by the visual centre, and is thus unable to transform into perceptions the sound-waves which come to it; nor can it transmit to other regions of the cortex the products of its function so as to induce further mental combinations. If the acoustic stimulus is powerful, it throws the auditory centres into high function, and then the sound becomes perceptible; but the moment the auditory centre enters into active function the visual centre is inhibited, the power of visual perception is diminished, and

the frontal region works in another direction, establishing relations with the auditory zone. No doubt the frontal lobes have the power of direction over the other parts of the nervous system; but nervous activity is one. There is no special apparatus for inhibition in the brain. W. W. IRELAND.

Acuteness of Sensation in Children in Relation to Age and Sex [*La sensibilità nei fanciulli in rapporto al sesso ed all' età*]. (*Arch. di Psichiat., vol. xxii, fasc. iii*, 1901.) *Di Mattei.*

The author has examined tactile, olfactory, and gustatory sensibility in 160 children of both sexes, aged from four to twelve years, and has further investigated in a number of Jewish children the condition of tactile and general sensibility, and sensibility to pain, comparing the acuteness of these forms of sensibility with the extent of mental capacity and with the degree of degeneracy (as measured by the number of stigmata) in the individual subjects.

The sexes were nearly equally represented in the series, and two groups were distinguished, those aged from four to eight, and those from eight to twelve. The ordinary methods of examination were employed, and the results are given in detailed tables.

The author arrives at the following conclusions:

(1) As compared with boys, girls show a larger proportion of individuals with acute tactile and olfactory sensibility; in regard to gustatory sensibility, the proportion of the acutely sensitive is higher in girls for sweet tastes, lower for bitter, and equal for saline.

(2) In Jewish children tactile and general sensibility were acute in a larger proportion of girls, sensibility to pain in a larger number of boys.

(3) Comparing the two age-groups, the younger boys showed a lower ratio of acutely sensitive subjects in all forms of sensibility, except that to saline tastes, where the proportion was equal, and that to bitter tastes, where it was superior to that in the group of older boys. The results were similar with girls, except in regard of sensibility to bitter and saline tastes, where the conditions were reversed.

(4) In Jewish subjects of both sexes the younger children presented a higher proportion of individuals with acute general sensibility, and a lower proportion with acute sensibility to pain.

(5) No definite relation could be made out between the number of stigmata of degeneracy in an individual, and the acuteness of his tactile sensibility.

The author's general conclusions are that, as a rule, sensibility is more acute in girls than in boys, and that in children of both sexes it increases with the progress of age. W. C. SULLIVAN.

On the Mental Fatigue of Children in Health and Disease [*Ueber geistige Ermüdung der Kinder im gesunden und kranken Zustande*]. (*Psychiatr. Wochenschr., Nos.* 20, 21, *Aug.*, 1900.) *Anton, G.*

Dr. Anton draws attention to the greater liability of the nervous system to disturbances during its stage of development, and in particu-

lar to the serious perturbations which the period of puberty, as a developmental process, may bring with it. As signs of fatigue we have loss of power of continued attention, and variability, inconstancy of mood, the latter often attended by a complete change in the temper of the child. Dr. Anton further insists on a periodic oscillation in the activity of the nervous system as specially manifest in the life of the child, this periodicity showing itself at times in a very pronounced form, particularly among children of neurotic family history. These tendencies in the developmental life of the young call for special watchfulness in their bringing up. HARRINGTON SAINSBURY.

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4. Ætiology of Insanity.

Influence of Heredity and Degeneracy in the Development of Secondary Dementia, and in that of the Stereotyped Movements that occur in it. Should Secondary Dementia be regarded as a Nosological Entity? [Eredità e degenerazione nello sviluppo della demenza consecutiva, ed in quello delle stereotipie riscontrate in essa. Merita la demenza consecutiva un capitolo a sè in nosografia mentale?] (*Riv. mens. di Neuropat. e Psichiat., Oct. to Nov.*, 1900.) *Mondio.*

This paper is based on the clinical study of sixty cases of secondary dementia. The antecedent psychosis was in 19 mania, in 15 melancholia, in 14 paranoia, in 7 epileptic insanity; 3 cases were paralytic dements, and 2 senile dements.

The questions specially considered by the author are--(*a*) Hereditary taint in acute insanity as a predisposition to termination in dementia; (*b*) the relation of the antecedent psychosis to the form of the secondary dementia; (*c*) the nosological position of secondary dementia.

He arrives at the following conclusions:

(1) The development of mental diseases is almost always dependent on predisposition, that is on a hereditary or degenerative state of nervous instability, and on this predisposition also depends the issue of each case.

(2) The more numerous the neuro-pathological elements in the ancestry in a given case, the more rapidly the case will pass into dementia, and the deeper will be the dementia.

(3) Secondary dementia assumes different forms, according to the nature of the antecedent psychosis. Hence from the dement's somatic symptoms, especially from the study of his stereotyped movements, it is possible to infer the form of the primary psychosis.

(4) The stereotyped movements, accordingly, whether they be automatic, or due to hereditary transformation, or to atavism, while they reveal the congenitally unstable condition of the brain in which they originate, are also valuable as indications of associated delirious ideas belonging to the preceding psychosis.

(5) If the secondary dementia always reveals the form of the psychosis from which it is derived, it ought not to rank as a separate disease form.

(6) In the passage into dementia, the form of the psychoneurosis, mania, or melancholia fades gradually; a trace of delirium, as a more resistent nucleus, remains for a time. This delirium, though only a phase of arrest in the evolution of the dementia, may at times acquire such a development as to deserve a special name, that of secondary paranoia (Tonnini) W. C. SULLIVAN.

The Influence of Military Campaigns in Tropical Climates in the Production of Insanity. (*Trans. Amer. Med.-Psych. Assoc., May,* 1900.) *Richardson.*

The literature on this subject, says the author, contains little of value, and he cannot find that any English writer on mental disease has ever considered it. He apologises for his own report as being fragmentary. He finds that 241 cases of insanity occurred among the troops engaged in the recent war with Spain, and 56 cases occurred in the navy. Among the army organisations which were engaged in the Philippine campaign 78 cases occurred. The same number were among those engaged in Cuba and Porto Rico, while 85 occurred among those troops whose service was wholly restricted to the southern camps. This gives roughly an average annual development of mental disease in the Philippine campaign of 1 in 1000, in the Cuban and Porto Rico of 1 in 615. Of those whose service was entirely restricted to the southern camps only 1 in 1350 became insane. It would appear that the 56 cases occurring in the navy is a relatively higher proportion than that of either of the other groups. No case of insanity occurred in the hospital corps in the Cuban campaign, only 6 out of 78 cases in the Philippine, but 14 out of 85 cases developed among this corps in the southern camps. This large relative proportion he attributes to the character of the service, and to the influence of the environment of hospital life. He then gives a series of tables showing the age and nationality of those affected, with the form, cause, chief symptoms, duration, and result of the attack. He thinks we are justified in drawing the following conclusions from this cursory review:—(1) That more care should be taken to reject those who have previously suffered from mental disorder, or who show a congenital mental defect; (2) putting aside cases of heredity or a previous attack, the prognosis is good, the pathological conditions not being accompanied by actual tissue degeneration; (3) as to alcohol being given as a cause in only 5 cases out of an average of 60,000 soldiers for one year, and in 16 cases out of 56 of mental disease in sailors, the variation may in part be due to the different practices of the examining surgeons, the "bout" of the sailor being more conspicuous and noticeable than the longer continued drinking habits of the soldier. A. W. WILCOX.

The Selective Influence of Poisons in Relation to Diseases of the Nervous System. (*Lancet, January 26th,* 1901.) *Mott, F. W.*

After shortly noticing the different ways in which poisons act on the nervous system, Dr. Mott describes the means of defence which the organism has against these poisons.

Poisons may be introduced from without, or produced within the

body, and they may cause either increased or depressed excitability of the nervous system.

The symptoms produced by the series of poisons introduced from without are next described. These poisons act on the whole brain as stimulants, and include alcohol, cocaine, tobacco, morphia, etc. In morphia intoxication the author mentions that intoxication may become the normal condition of the brain, and that only on withdrawal of the morphia do symptoms occur. The action of alcohol is more fully described. Dr. Mott considers that even small quantities of alcohol, or indulgence for only a short time may produce toxic effects in some persons of unstable mental organisation. In chronic alcoholism there is produced dementia with atrophy of association fibres and peripheral polyneuritis.

The selective symptoms produced in lead, arsenic, and tobacco poisoning, in pellagra, ergotism, and botulism are described.

Poisons produced in the body are next considered. They may be classified into poisons formed (1) by the perverted functions of the organs or tissues, and (2) by the action of micro-organisms upon the living fluids and tissues of the body.

Under (1) may be classed uræmia, phosphaturia, oxaluria, etc.; under (2) acute infectious diseases is included one of their most prominent symptoms—delirium, probably due to a toxin in the blood, and not to mere increase of temperature.

The selective action of microbial poisons is shown in tetanus, rabies, and diphtheria, and the possibility of chorea being also a microbial disease is mentioned.

Finally, Dr. Mott explains the selective action of the syphilitic poison on the nervous system in general paralysis of the insane and locomotor ataxy.

BERNARD STRACEY.

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5. Clinical Neurology and Psychiatry.

Observations on Progressive Paralysis during the last forty years. (*Allgem. Zeits. f. Psychiat., July 17th*, 1900.) *Behr.*

The author demonstrates that the clinical picture of progressive paralysis has changed during the last forty years in the case of men, and that it has remained unaltered in the case of women. In males the agitated variety has fluctuated between 25 and 29 *per cent.* of the total number between the years 1858 and 1872; during the last ten years the number has fallen to 9·8 *per cent.* Much the same result is seen in the case of the typical form of paralysis. During the first twenty years it embraced one half of all cases of paralysis, whereas in the last twenty years the number has fallen to 33 *per cent.*

The dementia variety on the contrary has increased in frequency. During the first twenty years, it was decidedly less than the typical form, scarcely amounting to a quarter of all cases; now it is more than a half of all cases. It is by far the most common variety of progressive insanity in men, and it has increased at the expense of the typical and agitated forms. In women the dementia variety has always been

more frequent than the others; it amounts to 53·7 *per cent.* of all cases of paralysis. The typical variety comes to 30 *per cent.*, and the agitated form is the least frequent of all. R. CARTER.

Epilepsy with Wandering Impulse. (*Psychiat. Wochenschr., July 7th,* 1900.) *Kran.*

Dr. Kran describes the case of a man, æt. 22, who had suffered from wandering impulses for the space of three years. In the family history the father had died from myelitis; the other members of the family were healthy.

At six years of age, the patient was thought to be a peculiar child, he had nervous attacks every spring. Suicidal intentions manifested themselves at the age of eighteen. He was backward at school, and was always of a melancholy temperament. Typical epileptic fits were never observed, but the asylum attendant stated that he was subject to nightmares, in which the body was thrown violently from side to side. Another witness stated that, after an attempt at suicide, quivering movements of the body set in, the eyes became fixed, and there was some foaming at the mouth. The author considers that the attacks seen in the asylum were due to nocturnal minor epilepsy.

During his wandering impulses, the patient would suddenly leave his home or employment with a little money in his pocket, with which he would purchase a revolver. Having arrived at a place some distance off he would either attempt to commit suicide or else frighten foot passengers by flourishing the weapon in their faces. After this performance, he would report himself to the police.

All the actions described above were entirely unconscious (in a legal sense), and the patient had no recollection of their occurrence. The periods of amnesia varied considerably; the shortest duration was four days, and the longest twenty-three days.

The patient was not mentally sound between the attacks; he was always melancholic. During the wandering impulse, he was not responsible for his actions, he therefore escaped punishment.

R. CARTER.

Sexual Periodicity in a Male General Paralytic [*Périodicité sexuelle chez un paralytique général*]. (*Comptes rendus de la Société de Biologie. October,* 1900.) *Féré.*

The patient, æt. 42 years, has reached the late demented stage of the disease, is bedridden and almost inarticulate. At regular intervals of twenty-eight days, the monotony of this condition is interrupted by attacks of agitation, during which the patient is sleepless and in a state of marked sexual excitement; he is in constant erection, masturbates, mutters obscene phrases, tries to grasp the genitals of every one within his reach. This phase lasts some three days.

The patient has had periodic attacks of this kind, not only since the development of the disease—they were of an actively delirious character in its earlier stages—but throughout his life, even, apparently, before puberty. He has no distinct history of hereditary taint; but he has

shown mental peculiarities since childhood, *e. g.*, fear of high places, fear of points, etc. From seven or eight years of age it was noted that every month he became for about a week irritable and unmanageable. After puberty these periods were more marked, and he was in the habit of absenting himself from home. He married at the age of twenty-six, and from the outset showed a strictly periodic type of sexual activity. For some years before the appearance of symptoms of general paralysis these monthly periods were associated with alcoholic tendencies.

Commenting on the case, Féré puts the question whether these phenomena of periodicity are to be regarded as simply neuropathic symptoms, or as the revival in a *dégénéré* of a lapsed physiological type. W. C. SULLIVAN.

Paranoiac Syndrome and Aërophagic Tic in the Prodromal Period of General Paralysis [*Sindrome paranoica e tic aerophagico nello stato prodromico della demenza paralitica*]. (*Riv. di Patol. nerv. e ment., Dec.*, 1900.) *Lambranzi.*

The patient, a married woman, came under treatment at the age of forty-six for mental symptoms following the menopause. There was nothing to note in the family history. The patient herself had always been eccentric; from childhood she suffered from left external strabismus, and intermittent spasm of the left *orbicularis palpebrarum;* there was a doubtful history of syphilis; otherwise she had had good health.

An attempt to commit suicide and refusal of food for several days led to her admission to the asylum. On reception she was found to have delusions of persecution by unknown persons who worked on her with electricity, producing various visceral affections. A short time before coming to the asylum she had developed a habit of frequent noisy eructation of air which she had previously swallowed; the air was odourless, and there were no gastric disturbances. This phenomenon continued in the asylum, increasing to crises in phases of emotional excitement. For three years the symptoms of persecutory paranoia persisted, became more organised, and were gradually combined with ideas of exaltation; beneath the delirium there was no evidence of mental weakness. The patient's bodily health was good. In the commencement of the fourth year symptoms of dementia began to appear, with some tremor of face and lips. In the following year there was a rapid failure of bodily and mental power, and characteristic signs of general paralysis developed—ataxic speech, pupillary inequality, loss of light reflex, etc.

Discussing the case the author points out that the prodromal paranoiac symptoms were quite exceptional in their persistency and elaboration. He thinks, however, that the development of the air-swallowing tic might have suggested a suspicion of the impending organic dementia. This symptom was first described by Pitres in 1884 in a case of hysteria. Séglas in 1899 pointed out that it occurred in other neuro-psychopathic states, and published a case where it was a prodromal symptom of general paralysis (*Semaine médicale*, 1899). Recalling Brissaud's view that the anatomical basis of the tic is a cortico-spinal reflex arc, the author endorses his advice of cautious

diagnosis in the early stages of nervous and mental disease associated with the development of tic. W. C. SULLIVAN.

Some Forms of Cerebral Seizures in Insanity. (*Trans. Amer. Med.-Psych. Assoc., May*, 1900.) *Neff.*

The author states that this paper is written with the object of calling attention to some forms of cerebral seizures, occurring in cases of insanity where the nature of the psychosis would preclude such a symptom. He proceeds to quote Berkley, Langdon, and other authors at some length, as to the theories regarding the nature of paretic seizures, and then as to their classification. The author records brief abstracts of sixteen cases, twelve of which have been under his personal observation, and arrives at the following conclusions:—(1) Cerebral seizures may occur in the insane under varying conditions. (2) Their causation is often obscure, and although they are frequently of diagnostic importance, they may appear in many forms of insanity as isolated symptoms. (3) The symptoms may be entirely independent of the type of the psychosis, and may in no way alter its course. (4) Autopsies on patients succumbing to these seizures often fail to reveal any lesion which could be held accountable for the symptoms. (5) It is possible to have an organic psychosis engrafted on a generalised or partial insanity. A. W. WILCOX.

Primary Dementia and Dementia Præcox. (*Trans. Amer. Med.-Psych. Assoc., May*, 1900.) *Sprague and Hill.*

Primary dementia, as understood by Sprague, includes all cases of so-called primary mental deterioration, stuporous insanity, and pubescent insanity, most cases of katatonia and melancholia attonita, with occasional cases formerly grouped with mania, melancholia, paranoia, and circular insanity. This grouping is based upon the teachings of Kraepelin, and corresponds closely to his dementia præcox, except that he hesitates about admitting katatonia to be only a variety of the fundamental disease. Both terms are applied to cases in which the mental faculties become permanently impaired in early life. Heredity is an important causative factor. Sprague believes that cases of so-called melancholia attonita are simply instances of primary dementia with marked apathy. In 112 cases of primary dementia which have come under his own care only one was discharged recovered, and she relapsed somewhat within four months of her supposed recovery. He believes that thyroid extract should be tried in all cases of this form of mental disease. In summarising, he observes that there exists a large number of insane persons in whom we can predict, from the moment we make our diagnosis, the appearance of a long array of certain paradoxical symptoms, which will after a time subside, leaving the patient in a condition of true dementia. Hill, quoting Kraepelin, states that cases formerly called primary dementia, and many others, should be named dementia præcox. This is one of the processes of deterioration; the other is katatonia. Kraepelin defines dementia præcox as the evolution of a simple, yet more or less well-marked mental deterioration, having the appearance of an

acute or subacute mental disturbance. There may be only a slight manifestation of mental weakness, so that the patient is not regarded as being insane. Under this category he classes certain beggars, tramps, and "dead-beats," who eke out an existence for a time, but finally land in the poor-house. He believes that it is more common in the male sex, that its origin is still obscure, but that it may be due to imperfect brain structure, or more probably to the result of positive brain disease. Hill states that masturbation is often assigned as the cause in the adolescent. His understanding of Kraepelin's classification of the insane is that patients do not change from one type of insanity to another, but that the symptoms in the various stages in each case must be known before the diagnosis in doubtful cases can be made. A. W. WILCOX.

Infantile Agrammatism [*Agrammatismus Infantilis*]. (*Arch. für Psychiat. und Nervenkr., Band xxxiv, Heft* 1.) *Liebmann, Alb.*

Dr. Liebmann, who devotes himself to the study of the disorders of speech, describes as a special affection the incapacity to construct sentences in correct grammar and syntax. It is normal in children of two or three years of age, and pathological with aphasics and lunatics. The inflections of the verbs, he tells us, are wrong, the prepositions do not govern the right cases, and the adjectives do not agree with the nouns. The ordinary arrangement of German sentences is very perplexing to one not trained in it. (I have noticed that German children are somewhat slower than British children at learning to speak, and British children in India decidedly prefer to speak Hindustani, which is an easier language than English.) Dr. Liebmann divides those unskilful in the arrangement of German prose into three classes, which represent three grades of special incapacity. He admits that many imbeciles are included in the first of these classes who use broken sentences; but he insists that there are some who have defects on the optic, acoustic, and motor spheres, although they are not otherwise weak-minded. He observes that they are wanting in the faculties of attention and recollection, do not understand or follow what is said to them, are very awkward in the use of their hands, and late in walking. He does not clearly explain what faculties are left untouched, and the parts of the intelligence affected seem nearly equal to the whole. We should be inclined to regard such children as imbecile. He tells us that many "agrammatics" of the first grade, though they give the impression of being idiotic, are quite well gifted, and only backward through their stammering and unintelligible speech; most agrammatics are not specially intelligent but not idiotic, and quite able to be freed from their incapacity, and in the course of time to attend school with advantage. Physicians have frequently occasion to observe backward children who are slow at speech, and sometimes this want of the power of expression seems disproportionate to their other faculties. In general, however, these are weak-minded or stupid children, who rarely get up to the normal intelligence.

Dr. Liebmann is disposed to trace stammering and deficiencies in forming or repeating correct sentences to functional lesions of the speech

centres, or to a want of motor and acoustic attention. He recommends for those so affected a special scheme of instruction in the formation of sentences. The study of special mental deficiencies pursued by medical men has thrown a new light upon psychology. As a contribution to this interesting line of observation the subtle analysis of observed cases in the little book of Dr. Hinshelwood on letter-, word-, and mind-blindness seems most worthy of attention. W. W. IRELAND.

Low Temperatures in Epilepsy [*Ipotermie nell' Epilessia*]. (*Riv. Sperim. di Freniat., fasc. iv*, 1900.) *Ceni, C.*

In this paper Ceni describes a new symptom in epilepsy. It consists in the sudden fall of the body temperature to 35° or even to 34° C. This fall lasts for about an hour. It is repeated at irregular intervals, sometimes several times daily, more frequently every two or three days. It was present in sixty-six per cent. of cases examined. He has not been able to establish any relationship between the occurrence of fits and the fall in temperature. A similar lowering of temperature has been noted as the result of the injection of blood or serum into animals. The serum from epileptics, however, gave largely negative results. In only one case did the serum, extracted during the phase of lower temperature, have a greater power of reducing the body heat than the serums extracted at a normal temperature. There was also no difference in this power between cases showing the phenomenon and those in which it was absent. The author regards the symptoms as a true epileptic condition. J. R. GILMOUR.

Inhibition in Mental Diseases: an Experimental Research [*L' inibizione nelle malattie mentali*]. (*Ann. di Nevrol., fasc. i*, 1901.) *Libertini, G.*

This research was carried out on the spinal reflexes. The author found—(1) That the reflex time in the upper limb is markedly reduced in all forms of mental disease, and that it diminishes proportionately to the gravity of the condition and to the degree of mental decadence. The minimum time was found in classical types of microcephaly. In these it approached very closely to that found in the apes. (2) In paralytic cases it is reduced, varying with the condition and localisation of the lesion. (3) In epileptics it is reduced, but there is always an increase of the reflex time after the fit. (4) As a general rule, states of excitement have a greater reduction than states of depression, and this is especially so in women. (5) The reflex time can be diminished by causing a cerebral area to functionate, as by fixing the attention on a given sign. (6) It seems that the inhibitory waves from the higher centres to the lower do not pass by the pyramidal tracts, but probably by the cortex, pons, and cerebellum. (7) This inhibition may be considered as one of the exponents of the mentalisation of the individual. The more this is lost, the more the latent period of the spinal reflex is reduced.

J. R. GILMOUR.

Paranoia and its Forms [*La paranoia e le sue forme*]. (*Atti del X congresso della Soc. Fren. Ital.*, 1900.) *Francesco del Greco.*

A short epitome only of this paper is given in these transactions. The author points out that in paranoia there are marked anomalies of the will and character. The paranoiac is an egoist. His moral sense is profoundly deformed. The dull fear and the excited instinct of preservation, feelings which in the paranoiac dominate all others, are an accentuation of a suspicious and egoistic nature. Similarly the psycho-sensory disorders arise from a fantastic mode of thought; the hypertrophied self-knowledge from pride with an active attention. The insanity cannot be corrected by the patient because the mind is polarised in a special direction (preoccupation, diffidence, etc.), and because acute hallucinations of hearing or of general sensibility confirm and reinforce the condition. He divides paranoia into three great classes—evolutive, involutive, and initial. The evolutive cases have anomalies of temperament (neurasthenia), or even more of character (suspicion, egoism, reserve). Constitutional anomalies are not distinct. The involutive have the constitutional or anthropologico-somatic anomalies well marked. They tend to pass either into criminals or into an inert dementia. The initial forms include the cases of mania, of persecution, etc. J. R. GILMOUR.

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6. Pathology of Insanity.

Hydro-microcephaly: a Study in Pathological Anatomy [*L' Idromicrocefalia: studio anatomo-patologico*]. (*Ann. di Nevrol., fasc. iv, v*, 1900.) *De Sanctis.*

In this paper, fifty-four pages long, the author communicates after a somewhat desultory fashion all that is known about this rare affection. Cruveilhier was the first to observe that we may have hydrocephalus with a small cranium. In some cases the cerebrum had entirely disappeared, being replaced by a sac filled with serous fluid. Klebs has given a detailed description of three cases of congenital hydrocephalus without any increase of the capacity of the cranium. He believes that the accumulation of fluid in the lateral ventricles may be the cause of the stunted development of the brain and of the cranium. He considers that the primary cause may be intra-uterine pressure upon the surface of the head of the fœtus, inducing narrowing and partial obliteration of the vessels. The accumulation of fluid may totally destroy the brain (Anencephaly). Hydrocephalus may follow microcephaly or aplasia of the brain, *ex vacuo*, as in the case of Helené Becker, who belonged to a family of microcephales. Pure microcephaly is much rarer than hydro-microcephaly.

The case so elaborately described by Dr. de Sanctis was a female infant, who died when two months old. There was a hereditary neurosis in the family, but no accident at birth. The body was poorly developed, the head was small, its greatest circumference was 262 millimetres—10 inches 2 lines. The dura and pia were much thickened and distended with a serous fluid. The cerebrum was represented by a

layer of the thickness of from 1 to 2 millimetres, owing to the distension of the lateral ventricles. The cerebellum was replaced by a sac filled with fluid. In the tissue of the cerebrum there was found an increase of the neuroglia, with a scarcity of nerve-cells, and patches of sclerosis. The bulb and spinal cord were of small size. The descriptions are illustrated by two pages of lithographs. W. W. IRELAND.

On Some Forms of Alteration of the Nerve-cell in Acute Compressional Psychoses [*Su alcune forme di alterazione della cellula nervosa nelle psicosi acute compressionali*]. (*Riv. di pat. nerv. e ment., Sept.*, 1900.) *Camia, M.*

This paper gives the results of the examination of four cases. The cases were very similar, and all died within a few days of admission into the asylum, with symptoms of marked motor agitation, more or less incoherence, sitiophobia, collapse, etc. The author points out that from the examination, both macro- and microscopic, no organic lesion is found sufficient to account for death, and this points either to an intoxication or to a general infection as the cause. The lesions in the central nervous system can be divided into three types: 1. Diminution of the chromatic substance, with disintegration and diffusion in the cell protoplasm. This is very similar to the type described by Nissl as "rarefaction of the protoplasm." 2. The cell, in addition to this change, has the nucleus more or less intensely coloured and shrunken—"homogeneity with atrophy." 3. Central chromatolysis, swelling of the cell body, disappearance of the processes, displacement of the nucleus towards the periphery of the cell, and reniform outline of nucleus. This is very similar to the changes which follow cutting across of the nerve-cylinder process. J. R. GILMOUR.

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7. Treatment of Insanity.

Hedonal, a New Soporific. (*Allgem. Zeits. f. Psychiat, B. lvii, H.* 6, 1900, *etc.*) *Hans Haberkant and others.*

Hedonal is a derivative of urethane, or rather a member of the group of the urethanes by the substitution of an amylic radical for the ethyl grouping in urethane proper; it was discovered by Dreser in 1899. It is a white crystalline powder of faint menthol-like taste and odour, readily soluble in alcohol, but only slightly so in water; the average dose is 15—45 grains, administered in spirituous solution or in cachet, or in suspension as a powder. Dr. Haberkant's experience, in various forms of psychosis, recognises the drug as a valuable soporific, reliable and prompt *even in cases of marked excitement, provided the dose is sufficient, viz.*, 2—4 *gm.* (30—60 *grains*). In these doses it can replace chloral hydrate and sulphonal, though dose for dose these latter are more powerful. After-effects and harmful by-effects are less likely to follow with hedonal. A feature in the action of hedonal is the polyuria which it often produces; the urine is not otherwise changed and the increased flow is without bad effect (it does not disturb sleep) and may, on occasion, as in a case of mental disease with morbus cordis,

be of advantage. Hedonal may require to have its dose raised, *i. e.*, it may lose its effect rather rapidly. Over urethane proper hedonal has the advantage of much greater reliability. The taste of hedonal may be objected to by patients and give rise to difficulties (this will not hold in the case of nasal feeding), but these may be obviated by the form of administration or by the method of rectal injection. Sleep follows the effective dose of hedonal in a quarter to half an hour, and with a dosage of 45—75 grains it lasts seven to eight hours.

Dr. Ennen's results (*Psychiatr. Wochenschr.*, No. 18, July 28th, 1900) agree on most points with the above stated. He finds that for simple sleeplessness doses of 15 grains suffice in the generality of cases, but that rarely the dose required was 22—30 grains. Chloral and trional he finds more active, but also more depressing, and in two cases which resisted 30 grains of chloral or trional he obtained good results with 45 grains of hedonal, a dosage he would have feared for the two former drugs. He excepts cases of great excitement from those suitable for hedonal, but then he worked with rather smaller doses than Dr. Haberkant. He did not observe any decided polyuria. He accentuates the safety of the drug, especially in the case of weakly patients.

Dr. Neu, of the Merzig Asylum (*Psychiatr. Wochenschr., loc. cit.*) confirms the value of hedonal as a safe soporific. His dosage ranged from 15—45 grains, the smaller dose sufficing in many cases. No spontaneous complaint was made of excessive diuresis, and this effect proved no contra-indication. In one case of sleeplessness from pain, due to cancer, 30 grains of hedonal gave refreshing sleep.

Dr. Foerster (*Psychiatr. Wochenschr*, No. 23, 1900) gives similar testimony to the efficacy of hedonal as a mild and safe hypnotic. He, in common with some other observers, failed to note any degree of polyuria as an effect of the drug. He was able to administer hedonal nightly for two to three weeks at a time without observing any falling off in the power of the medicine or any cumulative action. His maximum dose was 60 grains.

Merck, in his report published March, 1900, refers to hedonal under its scientific name Methyl-propyl-carbinol urethane. At that time Dreser's experiments on animals were alone available; these showed the much greater potency of this urethane than of the older ethyl urethane; they also appeared to show a superiority in intensity of effect over chloral. Though the last has not been confirmed by clinical experience, the safety of the remedy, indicated by the slight action on respiration and circulation which Dreser records, has been amply proved.

Merck's report, 1901, quotes additional clinical authorities, including Schüller, Schuster, Eulenburg, and Benedict, among others. When it is desired to give hedonal in solution, Schüller's formula is recommended, viz.

℞ Hedonal . . . . grs. xc.
Spirit. Vini diluti.
Syrupi Cinnamomi . . . ää ʒj.
Olei Carui Ætherei . . . ɱij.
M. ft. solutio.—sig: dose, one tablespoonful.

HARRINGTON SAINSBURY.

On the By-effects of, and the Indications for, Hyoscine Hydrobromide [*Ueber die Nebenwirkungen und Indicationen des Hyoscinum Hydrobromicum*]. (*Psychiatr. Wochenschr., No.* 27, 1900.) *Klein, Ferdinand.*

This interesting contribution deals with the use of hyoscine in the treatment of the acute psychoses, concerning the efficacy of which opinions differ so widely. The *objective* by-effects are first briefly recorded, viz., the primary vascular excitement, and then its subsidence with retardation of the pulse, then the sluggish, clumsy, and inco-ordinate movements, the dilatation and slow reaction of the pupil, then the deep sleep of four to six hours' duration. The primary reddening of the face gives way to pallor; and the mucous membranes become slightly cyanotic. Dr. Klein points out that the symptoms of depression, though still occurring, no longer show the severe collapse of former times which resulted from the use of what we now know to have been impure forms of hyoscine.

The occasional appearance of passing erythemas at the site of injection is mentioned, also of inflammatory infiltrations; the local irritation of hyoscine considerably exceeding that of morphia.

Dangerous collapse symptoms were never witnessed with the occasional use of the drug in the dose of $\frac{1}{140}$ to $\frac{1}{70}$ grain.

When used repeatedly the drug quickly loses its power, the dose requiring to be raised; further, restlessness and mental distress and irritability appear to increase, and with these there develops cachexia with rapid falling off in weight.

The subjective sensations after hyoscine injections include severe pain at the site of the injection, quickly followed by dryness of the throat and a sense of constriction; great thirst may set in. A feeling of painful apprehension and dread of extinction may arise; sounds appear to come from a distance, things look misty and doubled, the patient is restless yet painfully conscious of his muscular weakness.

Rarer by-effects are certain paræsthesias, *e.g.*, sensations of heat and cold and the creeping sensation accompanying goose-skin. Such paræsthesias may give rise to hallucinations, *e.g.*, that the bed is full of caterpillars. Besides these Dr. Klein insists on a special type of hallucinations of vision, which in his cases consisted in the appearance of snakes or lizards. In some of his cases hallucination of taste was likewise excited.

With the cessation of the medicine the hallucinations subside quickly, they do not develop into fixed ideas.

Dr. Klein considers that the development of the hallucinations of vision was so definite that it raises the question of specificity, *i.e.*, that to one poison may belong one special type or group of hallucinations. Of this phenomenon he invites particular study.

HARRINGTON SAINSBURY.

The Therapeutics of Epilepsy [*Therapeutische Leistungen und Bestrebungen auf dem Gebiete der Epilepsie*]. (*Psychiatr. Wochenschr., Nos.* 8, 9, 10, 1900.) *Donath, J.*

The writer surveys the whole field of treatment of this affection—medicinal, dietetic, operative, social. He points out that the great

advances which have been made have resulted from the pathological differentiation of the many affections which may become manifest by such common symptoms as convulsive signs and loss of consciousness. Thus has been effected the separation of hystero-epilepsy, of focal epilepsy (due to cerebral tumours, foci of encephalitis, etc.), of reflex epilepsy (from peripheral nerve irritation), of traumatic epilepsy. Further, the toxic forms of epilepsy (alcoholic, saturnine, uræmic), also such well-recognised clinical forms as the eclampsia of children, the eclampsia of pregnancy, and the convulsive seizures of general progressive paralysis. The recognition of Jacksonian epilepsy as a form of *partial* epilepsy has been of great importance, as likewise the discovery of the psychic equivalents of the convulsive seizure, *e. g.*, the impulse to roam (Poreomania, Wandertrieb). In spite of all the work done there remains a large group, the idiopathic, which still lacks a pathological basis, for the hippocampal atrophic scleroses of Meynert are not constant in idiopathic epilepsy, and are therefore probably secondary. The recent researches of Cabitto and Krainsky point to a toxic substance as the cause of epilepsy; witness the poisonous quality of the sweat and blood before and during the convulsive seizure. But these investigations need pursuance.

Dr. Donath then reviews the means of treatment, viz., (1) simple bromide treatment, including strontium bromide (Laborde); (2) the same *plus* the withdrawal of sodium chloride from the food (Toulouse and Richet); (3) the use of opium as an auxiliary and precursor (Flechsig)—this upon the whole is not advocated, and its danger is pointed out; (4) the employment of bromides with borax and cardiac tonics, digitalis or adonis (Bechterew). A modification of this treatment is obtained by the addition of codein in cerebral depression (Bechterew). These combinations are stated to be more effective in many cases of epilepsy, and to be free from danger. (5) The use of complex bromides, *e. g.*, bromalin, a preparation which is said to avoid the bromide rash and other symptoms of bromism. The oily compound, bromipin, may come in here. (6) Amylene hydrate as a rectal injection, this is specially referred to on account of its power over the status epilepticus; in this it resembles chloral hydrate. (7) The use of methylene blue. (8) The administration of ovarian extract in cases of epilepsy with marked menstrual disturbances. (9) The use of erysipelas serum (Hessler).

The author briefly refers to the older treatment by peripheral irritations of those cases of epilepsy with a peripheral aura, but he is inclined to regard these cases as belonging rather to the hystero-epileptic type. He urges the value of the dietetic treatment by a vegetable *régime*, or by a limitation of animal food, also the favourable results of a milk diet (Wislocki), and the avoidance of alcohol.

He then passes to the surgical treatment of epilepsy. Resection of the sympathetic is discussed, but the outcome of much work appears to be negative, and Donath holds that this operation is to be rejected. The value of trephining—with and without section of the dura mater, and removal or not of portions of the cortex cerebri—is next considered, and declared to be not altogether convincing. Kocher's method of closing the cranial gap so as to avoid the forma-

tion of bone, and obviate the rise of intra-cranial pressure, is mentioned, but questioned.

The establishment of the relation between eye trouble and certain cases of epilepsy is credited to Stevens. The correction of such trouble is the first obvious duty, and sometimes it is wholly successful. Dr. Donath concludes by briefly referring to the question of the marriageability of the epileptic, and to the question of the care of epileptics in special institutions or in colonies.

HARRINGTON SAINSBURY.

Treatment of Status Epilepticus [*Zur Behandlung des Status epilepticus*]. (*Allgem. Zeitschr. f. Psychiat., B. lvii, H. 4.*) *Naab, J. P.*

Dr. Naab gives the results of the treatment of status epilepticus at the Bickfeld Asylum.

He commences by enumerating the various modes of treatment which have been recommended, and he subsequently gives a detailed account of eight cases in which he employed intra-muscular injections of amyl hydrate. This method of administering the drug is much more efficient than any other. It is generally impossible to give the drug by the mouth, as the patient is unable to swallow. In twenty-two cases it was given *per rectum*, and in eight of these it was returned in fifteen minutes without producing any effect. No irritation or inflammation followed the injections. A slight resistance was felt in the muscle for twenty-four hours after. The author would advise intra-muscular injections (1) where it is necessary to obtain a rapid action of the drug; (2) in cases of constipation; (3) in cases of incontinence of fæces. In all other cases the drug can be given in the form of enemata with mucilage of gum arabic.

Amyl hydrate should be given in large doses, and in one or two hours half the initial dose should be repeated. Dose for enemata 5·0—7·0, and for injection 3·0—5·0. After the cessation of the epileptic seizures, 2·0 of amyl hydrate should be taken every day for three or four days.

With regard to general treatment, the œsophageal tube has been abandoned, and nasal feeding is carried out by pouring teaspoonfuls of milk into the nose; this causes less disturbance, and provided sufficient time is allowed to elapse before a second dose of milk is given choking does not occur. The room, of course, should be perfectly dark and quiet. 83 *per cent.* of the cases have recovered.

Dr. Naab attributes the success of this treatment to the large doses of amyl hydrate which were often injected into the muscles combined with plenty of nourishment given without nasal tubes.

The author throws out the suggestion that similar treatment might be adopted in eclampsia, considering the close association between this and epilepsy.

R. CARTER.

Ætiology and Treatment of Puerperal Psychoses [*Die Aetiologie und die Behandlung der Puerperalpsychosen*]. (*Allgem. Zeitschr. f. Psychiat., B. lvii, H. 2—3, 1900.*) *Mongeri, L.*

In addition to the psychical symptoms, such as melancholia and mania, the author found that there was invariably a rise of temperature.

The degree of fever never rose above 40°, and seldom reached 39·6°.

The lungs, heart, abdomen, and genital organs were examined, but no abnormality could be discovered to account for the rise of temperature. Various means were adopted to reduce the fever, such as baths, cold applications, and drugs, but all without effect.

The case of a woman, æt. 22, is described, who began to suffer from acute delirium after post-partum hæmorrhage. The temperature rose to 38·5°, the pulse was small and frequent, the mouth was dry, and the tongue coated. Her speech was incoherent, and she refused all food. Opium and quinine had no effect on either the temperature or restlessness.

The author thought the condition might be of an infective nature, and he consequently determined to try injections of antistreptococcus serum. After the first injection of 10 cm. the temperature became normal, and after the third injection the delirium ceased. The negative result of the blood-culture examination was no argument against the employment of the serum, as the blood was taken from the arm eleven days after the illness began. Dr. Mongeri recommends this form of treatment, but admits that the result does not help towards the elucidation of the vexed problem as to the real cause of puerperal psychoses. R. CARTER.

On the Question of Salt in the Alimentation of Epileptics [*Du sel dans l'alimentation des épileptiques*]. (*Gaz. des Hôp., July 21st*, 1900.) *Toulouse, Ed.*

Dr. Toulouse summarises his more recent results with this his treatment of epilepsy by the withdrawal of salt from the food, whereby the bromide administered medicinally appears to take greater effect, Dr. Toulouse's theory being, that under these circumstances, the bromide enters more intimately into contact with the tissues by substituting itself for the sodium chloride withdrawn. He gives details of the diets appropriate for this hypochlorinisation of the food supply. A regimen of 3 litres of milk and 1 to 2 lbs. of bread supplies about 5 grammes of sodium chloride, a quantity well adapted for this treatment. This diet with 2 grammes of bromide may yield excellent results; but by the temporary increase of the bromide, or temporary further reduction of the sodium chloride of the food, it is possible, if need be, to produce a greater effect. Dr. Toulouse uses by preference sodium bromide; he has not found any special advantage from strontium bromides. Where a milk diet is not tolerated, the original paper must be consulted for a suitable regimen (p. 826, *loc. cit.*). HARRINGTON SAINSBURY.

Symptomatology and Treatment of the Suicidal Impulse [*Séméiologie et traitement des idées de suicide*]. (*Gaz. des Hôp., October 16th*, 1900.) *MM. Garnier et Cololian.*

The dictum *mori licet cui vivere non placet* is no longer admitted, and the suicidal impulse is now generally accepted as a symptom of mental derangement. Suicidal ideas are described by the authors as (1) *false* or *simulated*, some hypochondriacs and hysterics exhibiting

these as *hallucinations*, auditory or visual, *e.g.*, the result of certain cases of alcoholic delirium, of general paralysis of the insane, of melancholia, etc. (2) As of *the nature of fixed ideas*. Such are witnessed in many cases of melancholia, and in the subjects of delusions of persecution, also in senile dementia, general paralysis, etc.

In the neuroses of hysteria and neurasthenia the impulse may exist, and may be put into execution; it is necessary, therefore, to beware of regarding the patient's statements as play-acting.

The treatment of this affection necessitates the most careful moral training of the child in whose family history the suicidal tendency exists. J. J. Rousseau's wise precepts should be inculcated, and the mind specially trained to resist the impulse which may come.

The impulse being in full swing, the authors discuss, or rather enumerate, the various means which have been essayed—vesicatories, emetics, prolonged baths, and other methods of displacing the morbid idea by the shock of the physical impression. But the main endeavour must be to discover the disease of which this impulse is a symptom, and the motives which, evoked by the disease, have stirred the impulse; and to treat both the one and the other.

The most careful surveillance—the common room and *not the cell*, bed, feeding (forced if need be); these are among the routine treatment of every case, no matter what its ætiology.

HARRINGTON SAINSBURY.

Symptomatology and Treatment of the Refusal of Food [*Séméiologie et traitement du refus d'aliments*]. (*Gaz. des Hôp., October 23rd*, 1900.) *MM. Garnier et Cololian.*

The causes of sitiophobia are physical and psychical. Gastro-intestinal disturbances constitute the former, and may cause the anorexia which subsequently develops into a refusal of food.

The psychical causes are intimately associated with suicidal ideas. The authors discuss the forms of derangement which are attended by sitiophobia, and then they pass on to the treatment.

They do not agree with the prolonged waiting adopted by some authorities, but advise forced alimentation if the refusal to eat exceed forty-eight hours. Throughout the period of forced feeding, they endeavour at each administration to use moral influence in one or other form—coaxing, reasoning, commanding, as may seem most advisable. The patient should be confined to bed throughout. The feeding must be œsophageal, either by mouth or nose, preferably by mouth (if feasible), as the danger of introducing food into the air-passages is less by this method.

HARRINGTON SAINSBURY.

On the Therapeutics of Light [*Ueber Lichtbehandlung*]. (*Monats. f. Hygien., Aufklär. ü. Reform., Jan.*, 1901.) *Buschan, Georg.*

The history of the development of the use of light as a means of cure is surveyed, and we are taken back to very early times—Greco-Roman—to behold the sun-bath in full swing. The value of light disappears, as we should expect, in the Dark Ages, to make its reappearance and to assume unexpected proportions within recent years. The scientific basis of the treatment rests on the observations of numerous investi-

gators into the effect of the actinic rays on vegetable and animal protoplasm; of these observations many instances are given. The analysis of white light and the reference of the activities to one or other end of the spectrum is dwelt on, as also is the similarity in action of the electric arc light and sunlight. This similarity is so close that the electric light can be substituted for sunlight, and the dose regulated with the nicety of a dose of medicine.

The value of Kellog's electric-light bath, the first of its kind, is next treated of, and the apparatus described and its modifications. As a means of promoting perspiration it promises to supersede the usual vapour and hot-air baths, and it possesses the great advantage of being much safer in respect of its action on the heart. In addition, however, to its use as a sudorific, it must exert a penetrative action upon the tissues, as, indeed, has been established. In numerous affections the electric bath has been tried, *e. g.*, acute and chronic rheumatisms, chills, catarrhs, intoxications (including auto-intoxications), gout, diabetes, etc. We learn that neurasthenics do not bear the ordinary electric bath well; but even these can be treated by modifications, *e. g.*, Kattenbracker's, and the bath in which the arc light is employed can, by means of blue glass, be made even sedative to the nervous system. Finsen's light treatment of course finds mention. The paper is a very interesting one.

HARRINGTON SAINSBURY.

Mercurial Injections in Syphilis [*Les injections mercurielles dans la syphilis*]. (*Journ. de Méd. de Bord.*, *Nos.* 4 *and* 5, 1901.) *Guérin, A.*

This method of treatment finds much greater favour abroad than in this country, though, according to weighty authorities, it is a very powerful means of cure. Guérin gives as indications for the hypodermic treatment, the rapid progress of the disease with early visceral or nervous developments, and with the tendency to frequent relapses. Injections are also to be employed to save the stomach where this is irritable. Guérin suggests that the injection may be employed as a legitimate ruse when the patient refuses to undergo the usual mercurial course. To the patient the suggestion is then made of a serum treatment by injections, and the bichloride of mercury is added to preserve the serum! Some authors advise the mercurial injection so soon as the diagnosis of the hard chancre has been established. The use of mercury in the insoluble and soluble form, in the massive or the fractional dose, is then discussed, and suitable formulæ are appended. The importance of the technique is insisted upon, and the details are briefly given. Upon the whole, where this method is determined upon the bichloride of mercury dissolved in sodium chloride solution 0·7 *per cent.* would seem to be as useful a preparation as any, and it is by far the simplest. HARRINGTON SAINSBURY.

Two Hundred Operative Cases—Insane Women. (*Trans. Amer. Med.-Psych. Assoc.*, *May*, 1900.) *Bucke, R. M.*

The author here reports the gynæcological work accomplished at the Asylum for the Insane, London, Ontario, up to the present date. Operations have been performed in 200 cases, including curettage,

amputation of cervix, ovariotomy, hysterectomy, etc. The results were 4 deaths, 196 women restored or improved in bodily health, 83 of these recovering their sanity, while 45 others showed marked mental improvement. In contrast, out of 63 operations in general surgery there was only one mental recovery. He then proceeds to classify the 196 cases who survived and were benefited, and draws the following conclusions, viz., that diseases of the ovaries and tubes have most influence in the causation of insanity; that disease of the body of the uterus and cervix comes next in importance; while uterine tumours and tears of the perinæum rank still lower. Ordinary surgical diseases, such as hernia and tumours of the body at large, he believes have no influence as causes of mental disturbance. He then mentions the increased recovery rate among the female patients during the four years after the operative work had become a factor, there being no corresponding increased recoveries among the male. In conclusion he states that he never operates for insanity, but to relieve the patient's physical condition.

During the discussion on this paper, Bucke mentions the case of a patient becoming sane the day after an operation for adhesive inflammation of the pelvic viscera due to a traumatism nineteen years before, a few days after receiving which her mind began to give way.

A. W. WILCOX.

Surgical Operations in Hospitals for the Insane. (*Trans. Amer. Med.-Psych. Assoc., May*, 1900.) *Mabon, W.*

The author maintains that both science and humanity demand the exercise of all the skill of the physician, not only in the direct treatment of mental disease, but also in the relief of all associated bodily ailments; and hence he holds that the patient should have the benefit as well of such surgical measures as may be called for, as of the most careful medical examination and treatment. He does not refer particularly to brain surgery, but to all operations which may add to the comfort of insane patients, whether they hold out much hope of mental relief or not. He then prefaces a short review of the surgical work performed at the St. Lawrence State Hospital by stating that the results have been made possible by special operating rooms, by physicians and nurses trained in surgical technique, and by consultations with special surgeons in the neighbourhood. He then proceeds to quote cases in which the patients have regained their sanity, been benefited mentally, or rendered comfortable and more useful members of society by operation. During the last three and a half years he states that 189 operations have been performed, embracing a wide surgical field, but he does not give the percentage in which there was any mental effect in these cases. Some which would seem to be of particular interest were exsection of sciatic nerve, radical operations for hernia, resection of vas deferens, trephining, pelvic operations, and resection of ribs for empyema.

A. W. WILCOX.

Surgery in Lunatic Asylums [*De la Chirurgie dans les Asiles d'aliénés*]. (*Le Prog. Méd., March 30th*, 1901.) *Picqué, L.*

After an opening statement as to the success obtained by systematic surgery in the lunatic asylums in the department of the Seine, and thanking his colleagues for their help and assistance in overcoming prejudice, and eventually enabling him to obtain the necessary operating theatre, etc., the author states that in his last report to the Prefect of the Seine he pointed out that in his opinion operations should be performed, not only in cases where the diagnosis and procedure are simple, but also in different cases, such as occur (perhaps in mentally recoverable cases) in connection with the viscera, etc., and in which death would ensue if operative interference were not undertaken. It was for this latter class of cases that a special operating theatre, etc., was necessary, and he states with pleasure that since these were provided, many operations have been performed without a single failure. He then records a few cases, including operations for perforation of the stomach, hæmatosalpinx complicating a five months' pregnancy, followed by a normal delivery at term, ruptured extra-uterine pregnancy, etc.

A. W. WILCOX.

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8. Sociology.

Lunatic or Criminal? [*Aliéné ou Criminel?*] (*Journ. de Méd. de Bord., Feb. 17th*, 1901.) *Régis.*

Régis discusses in this paper a medico-legal problem of much practical importance, taking as his text a case—common enough in character—which occurred recently in the south of France.

An alcoholic was charged with attempted murder. The experts, after examination, reported—(1) that he was insane and irresponsible at the time of the act; (2) that he had recovered at the time of examination; (3) that he ought to be liberated. The man was accordingly set free, and a few months later, in the course of another attack, he killed one individual, wounded two others, and attempted suicide. In the light of this sequel, how far were the experts justified in their first opinion?

Régis examines their conclusions *seriatim*. The circumstances of the offence—the accused in a panic state of hallucinatory delirium ran into the open country, hid in a hedge, and fired a revolver at a passing stranger—leave no doubt of the accuracy of the experts' first proposition. The second conclusion is more questionable. The disappearance of the delirious paroxysm in chronic alcoholism is not a recovery; the fundamental morbid state remains, and the slightest excess leads to a revival of the delirious symptoms. And this doctrinal error regarding the nature of the acute attack involves the practical error in the third conclusion—the liberation of the dangerous alcoholic. In a medico-legal point of view chronic alcoholism should be assimilated to epilepsy. The epileptic who has been homicidal in a fit, but who is sane in the intervals, is not set at liberty when the fit is over; neither should the alcoholic be allowed at large when his delirious paroxysm is

over; in both cases it is only the episodic symptom that has passed off, the disease remains with its practical certainty of similar explosions in the future. W. C. SULLIVAN.

Provision for the Criminal Insane. (*Albany Med. Ann., July*, 1899.) *Allison.*

This is an eminently common-sense address, delivered at the American Prison Congress of 1898 by the Medical Superintendent of the Matteawan State Hospital. Dr. Allison advocates strongly the doctrine that insane persons should be held wholly irresponsible in law, and maintains that this doctrine in its widest application offers the best guarantee of safety from insane criminal acts. He combats the popular prejudice that the plea of insanity in criminal cases is a subterfuge to save the evildoer, and points out that, on the contrary, its admission serves the interests of the community, since it implies as a corollary that the insane persons shall be kept indefinitely under restraint, and not released after a long or short term of imprisonment to commit fresh crimes.

From the same point of view he criticises the present mode of dealing with the mentally defective criminals, who form a large part of the prison population in every country; penal treatment effects no improvement in their condition; they are a source of trouble in ordinary prisons; and when at large they are dangerous. In the interest of society it is to be desired that they should not be regarded as fully responsible, that they should not be removed from penal discipline, and detained indefinitely in special institutions. W. C. SULLIVAN.

A New Case of Sexual Perversions [*Un nouveau cas de perversions sexuelles*]. (*Gaz. des Hôp., April 2nd*, 1901.) *Garnier and Wahl.*

The patient is a male, æt. 26, with neuropathic heredity on both sides—father eccentric, mother hysterical and somnambulist. He presents numerous stigmata of degeneracy—marked facial asymmetry, Gothic palate, feminine development of hips. As a child he was odd and introspective. When about fifteen years of age he showed the first signs of sexual perversion, becoming fascinated by a theatrical poster representing a fashionably dressed woman, and subsequently developed fetichism of dress fabrics, particularly velvet, silk, and lace, and collects objects of this sort which had been used in the dress of women, children, or even dolls. He provokes sexual orgasm with these objects, keenest when he tears them in the act of pseudo-coitus. He has a strong repulsion to normal sexual intercourse. He has extravagant pretensions as a poet and inventor; his mental level is low, and he is incapable of sustained work of any kind.

W. C. SULLIVAN.

Alcoholism and Crime [*Juristische Briefe; IV. Alkoholismus und Verbrechen*]. (*Allgem. österreich. Gerichts-Zeitung*, 1901.) *Benedikt.*

In the first part of the paper, the author expresses his dissent from the current views of the unfavourable action of moderate doses of alcohol on nervous function. Discussing the question of excess, he

emphasises the need of distinguishing the various modes of individual reaction. He considers that intemperance is more frequently a symptom than a cause of mental disease; and he insists strongly on the overwhelming importance of economic factors—wages and hours of work—in the alcoholism of the proletariat.

Regarding the attitude of the law towards alcoholic criminals, Benedikt protests against the admission of drunkenness as a ground of legal irresponsibility, except in cases of definite and persistent insanity. Otherwise, he would subject the alcoholic criminal to the ordinary penal discipline, supplementing it by treatment in an inebriate asylum. He particularly advocates a classification of cases with a view to the latter treatment; curable drunkards should be dealt with in a reformatory on hospital lines; harmless invalids might be sent to the dement wards of an ordinary asylum; while incorrigible criminal alcoholics, being dangerous to the community, should be confined indefinitely in an institution similar to the criminal lunatic asylum.

W. C. SULLIVAN.

Sexual Perversity and the Criminal Law [*Juristische Briefe; V. Sexuelle Perversität und Strafrecht*]. (*Allgem. österreichen. Gerichts-Zeitung*, 1901.) *Benedikt.*

The author attacks with his usual vigour the doctrine of the legal irresponsibility of the homo-sexual offender. Viewing the matter first from the standpoint of the social ethics, he argues that in questions of morality the conscience of the masses is a more reliable guide than the intelligence of the few. The repugnance of the popular instinct to homo-sexualism is justified by the supreme interest of the community in securing the propagation of the race.

The plea that the homo-sexual impulse is "irresistible" cannot be admitted as a bar to punishment. Leaving aside the question whether a determinist can imagine any impulse not resisted to have been other than irresistible, it is obvious that the plea *quantum valeat* should be equally valid in infanticide, in various *crimes passionels*, and in other *quasi*-morbid offences, where, however, responsibility is imputed. The social motives which require punishment in such cases require it even more urgently in sexual inversion. The proper place for the sexual invert who acts on his impulses is the prison. W. C. SULLIVAN.

Pellagra and the Price of Corn and Maize [*La pellagra ed il prezzo del grano e del mais*]. (*Arch. di Psychiat., vol. xxii, fasc.* 3, 1901.) *Antonini.*

The author presents a very interesting statistical proof of the influence which variations in the price of cereals exercise on the prevalence of endemic pellagra. Comparing in each year from 1881 to 1895 the number of admissions of pellagrous patients to the asylum of Bergamo with the average price of corn in the markets of Lombardy, he shows that the frequency of the disease increases and decreases according as corn is dear or cheap. The price of maize varies directly with the price of corn. A similar correspondence appears when the oscillations in the price of corn are compared with the number of

deaths from pellagra, as given in the mortality tables for the whole of Italy. Pellagra, as Lombroso has shown, is dependent on intoxication by diseased maize. Increased dearness of corn necessarily leads to its replacement by maize in the food of the people; and the price of maize rising with the increased demand, inferior and diseased qualities are consumed, and pellagra becomes more prevalent. The corn tax in Italy, which keeps the price of the grain at 25 lire *per quintal* as compared with 14 lire in London or New York, thus operates as a powerful agent in the increase of pellagra. W. C. SULLIVAN.

The Need for Chairs of Anthropology in the German Universities [*Die Nothwendigkeit von Lehrstühlen fur eine "Lehre vom Menschen" auf deutschen Hochschulen*]. (*Cbl. f. Anthropol., Ethnol., u. Urgeschichte, Hft.* 2, 1900.) *Buschan.*

This paper is a plea for fuller official recognition of the importance of anthropology by the endowment of chairs of that science in the German universities. The arguments are equally valid for other countries.

From Dr. Buschan's statement it appears that only in one university (Munich) is there a Professor of Anthropology; and there are not more than two or three *privatdocenten* in the subject in the other centres. In this respect Germany compares very unfavourably with France, Austria, Hungary, the United States, and Switzerland. The author recalls as a commonplace the duty of the State to foster research by endowment; he points out the importance of anthropology in its theoretical aspects; and he indicates the immediate practical value of that study in the present circumstances and ambitions of the German people. Pending the realisation of his ideal of separate chairs in all the universities for physical anthropology, prehistoric anthropology, and ethnology, the author would be content to have, at all events in each university, a Professor of Anthropology, who should devote himself to whatever branch of the subject specially attracts him.

In a postscript it is stated that the Prussian Government has taken the first steps in the matter, and that two chairs, one of anthropology and one of ethnology, are to be created in the University of Berlin.

W. C. SULLIVAN.

The Prophylaxis of Mental Disease from the Social Point of View. [*La prophylaxie des maladies mentales au point de vue social.*] (*Psychiatr. Wochenschr., Nos.* 40—43, 1900.) *Morel.*

As principal factors in the production of the degenerate and the insane, Dr. Morel cites heredity, alcoholism, masturbation, puberty, marriage, and the exaggerated practice of religion; and he urges that the public mind and conscience should be awakened to the responsibility which rests upon the individual citizen and upon the State, to control these factors.

To heredity, he opposes an education based upon the knowledge of the antecedents of the offspring, and the special tendencies which those antecedents imply. This education starts with the infant, and it is admittedly a potent means of combating nervous failure; witness the

great results of the systematic treatment of backward children. Dr. Morel insists that the precocious child is equally with the backward a morbid product, and that faulty education is responsible for the frequent failures we witness in this class.

Against alcoholism, he proposes a crusade by popularising the knowledge of its dangers by writings, by conferences, above all by enlisting the sympathy and enthusiasm of woman in its antagonism. These are to precede legislation; but he discusses Dr. Joffroy's proposed asylums for inebriates and hospitals for inebriates, the latter receiving alcoholics who, in addition to the alcoholic habit, are suffering from mental disorder, or disease of stomach, liver, kidneys, or heart.

The dangers of the period of puberty and the disastrous results of masturbation raise the quesion of home teaching in combination with the day school *versus* the boarding school.

The marriage question raises many points, among others the validity of a marriage contracted without a sufficient knowledge of serious family antecedents, such antecedents having been suppressed. It is suggested that the law might facilitate divorce in such cases. Dr. Toulouse is also quoted, who, likening the social contract of marriage to the contract of a life assurance, suggests that, as in the case of the latter, the parties to the former should be constrained to submit themselves to the doctor beforehand.

Needless to say, all these questions are of infinite complexity, but it will be nothing less than a gain if they are pondered, and Dr. Morel's paper will at any rate have the effect of giving food for reflection.

HARRINGTON SAINSBURY.

Separate Provision for Tuberculous Patients in State Hospitals for the Insane. (*Trans. Amer. Med.-Psych. Assoc., May*, 1900.) *Harrington.*

In tabulating the result of inquiries made as to the death rate from tuberculosis during the last few years in the State hospitals for the insane in the Unites States, the author has divided the hospitals into groups, according to their geographical distribution. He finds that the death rate from this disease (in the sixty-seven hospitals he heard from) was in the New England States 11·9 *per cent.*, in the middle States 13·3 *per cent.*, in the western and south-western States 16·8 *per cent.*, and in the southern States 20·1 *per cent.* It will be seen that the rate increases as we pass from the first to the last group, but it must be remembered that all hospitals in the country did not respond to his inquiries, and are therefore not included in the enumeration. The death rate for these sixty-seven lunatic asylums in the United States for the past five years was 14·8 *per cent.*, more than half having a death rate from tuberculosis of 15 *per cent.* to 60 *per cent.* The death rate from this disease in the country generally was 15 *per cent.* He then makes a *résumé* of the alleged causes of the increased mortality from this disease in lunatic asylums as compared with that in general life. In his opinion the most important factor in lessening this disease is undoubtedly the separation of the tuberculous from the healthy. On inquiry he found that in the majority of asylums in the United States there was no provision made for this, but in most cases its great desirability was expressed.

He learnt, however, that quite generally efforts at isolation were being made as far as conditions would allow. In some cases the most that could be done was to put the patient suffering from tubercle in a single room off the general ward; others set aside a ward for these cases, while owing to overcrowding some find it impossible to isolate to any practical extent, but can only employ such measures as disinfecting, etc. In the County Asylum, Lancaster, England, isolation has during the last few years reduced the death rate from phthisis to nearly one half. In the Southern Illinois Hospital like good results have followed.

The author believes it to be the duty of the State to provide means for the isolation and proper care of the tuberculous insane, so as to prevent the infection of the non-tuberculous. A. W. WILCOX.

Diarrhœa in Asylums. (*Psychiatr. Wochenschr., No.* 13, 1900.) *Starlinger.*

Dr. Starlinger gives an account of an attack of diarrhœa affecting a large number of the inmates of an asylum in Vienna.

The attack began quite suddenly one night amongst the servants. There had been no illnesses immediately preceding it. At first 20 *per cent.* of the domestics were affected, and later on 30 *per cent.* of servants and patients. The attack was characterised by severe colic and diarrhœa. The motions were watery, and averaged ten in the twenty-four hours. There was no fever or vomiting. The attack did not last more than a day, but considering its short duration the prostration left afterwards was considerable. The disease appeared simultaneously in other parts of the asylum.

During the last ten years diarrhœa of a like nature has occurred eight times. The cause of these outbreaks has not been discovered. Inquiries have been made at various asylums, with the result that drinking-water and atmospheric disturbances share the chief responsibility. There is no definite proof that either one or the other is the real cause in all cases. Food has been thought to be a cause, but the evidence so far certainly negatives such an idea. The fæces were examined bacteriologically with negative results.

Dr. Starlinger suggests that asylum superintendents should make careful notes of the outbreaks when they occur, so as to throw some light on this most important question.

Centripetal Error and Centrifugal Truth [*Centripetaler Irrthum und Centrifugale Wahrheit*]. (*Wiener med. Presse, No.* 3, 1901.) *Benedikt.*

Under this title, Dr. Benedikt throws some rapid glances at the probable advance of scientific knowledge in the twentieth century, and furnishes hints through what paths the advance should be prosecuted. As regards embryology, he thinks that Haeckel and his followers have gone too far with their speculations, and that in some points the intellectual work of the ancient Hamitic (Semitic?) peoples laid down in the history of the creation in the Old Testament comes nearer the truth in many respects. The learned professor promises, in a treatise to be entitled 'Adam and Eve in Anthropology,' to place us on the right standpoint for the question of the creation of single species and races. He

thinks that nature in the formation of living structures works geometrically, and that we shall soon be able to treat morphological anatomy as geometrical science, and from the structure to formulate the active biological forces. As yet, he confesses, anatomical specialists with a few exceptions have not shown a disposition to follow these methods. For the advancement of pathology, he hopes much more from the prosecution of clinical observations than experiments in the laboratory. The dog, while being experimented on, is silent or misleads, while the patient states the truth.

As early as 1862, Dr. Benedikt pointed out that losses of sensibility did not bear any proportionate relation to ataxic motor disturbance; such disturbance is not owing to any loss of central co-ordinating function, but to causes which affect every separate muscle. He argues that the regulating influence cannot follow the impulse of the will which transmits the stimulus to the muscles, for if the regulation of the will stimulus were to go second we should have in the healthy condition an ataxic movement to be followed by a regular one. Dr. Benedikt has held for forty years that at the same time as the voluntary stimulus a centrifugal innervation proceeds along the posterior columns of the cord, and that the stoppage of this regulating innervation through disease of the posterior roots and posterior columns has for its sequel ataxic movements. He rejects the opinions generally held by physiologists that the sensory fibres of the cord only conduct centripetally. At the Congress at Moscow in 1897 the Professor proclaimed the falsity of the doctrine that the nerves only conduct in one direction, and proclaimed that not only in the commissural fibres of the brain there was double conduction, but that in the nerves, the most complete telegraphing apparatus in nature, conduction could take place in two directions. This doctrine of the double conduction of nerves was not, he observes, contradicted in Moscow, since then physiologists and pathologists have not paid proper attention to the views of the learned Professor of Vienna.

W. W. IRELAND.

9. Asylum Reports, 1900.

Some English County and Borough Asylums.

Bristol.—Dr. Benham records a net decrease in admissions, the increase in females being more than counterbalanced by the falling off in males. He feels sure that, whatever may be the case elsewhere, there has been no substantial increase of insanity in this district during the last few years.

The new wards have been laid with American maple wood, dry polished. It will be interesting to hear how this material wears and behaves.

Derby Borough.—As usual Dr. Macphail has reason to complain of the unsatisfactory physical state of his patients on admission.

"Four patients were admitted in a critical and almost moribund condition; three of them died within a fortnight. In all of these cases the only mental symptoms observed were delirium caused by the bodily illness from which the patients suffered: viz., acute rheumatism in two, and bladder and kidney complaints in the others."

A most unfortunate occurrence took place which illustrates the trials and anxieties of the asylum staff, and at the same time bespeaks sympathy for that of the Derby Borough Asylum.

"The coroner held one inquest. This case was unique, and I have never heard nor read of a similar occurrence. A female patient in the restless, purposeless excitement of melancholia tore out her tongue and threw it on the floor by the unaided use of her fingers. There was extensive bleeding which was soon controlled; but the shock was severe, and being handicapped by a diseased heart, she died forty-two hours afterwards. There had been no previous attempt at self-destruction by this patient, but she was regarded as suicidal. No blame could be attached to any one, and indeed the possibility of such an occurrence had not been contemplated. Happily accidents of this distressing nature are of rare occurrence, and this is the first case of suicide during the twelve years the asylum has been occupied, although suicidal tendencies are ascertained to exist in more than the half of the cases admitted. It was, unfortunately, impossible to prevent the other patients from hearing the details of a case of this sort, owing to the publicity given it by the local press. During the succeeding few weeks four of my actively suicidal patients told me they had tried, without success, to pull out their tongues."

Derby County.—The County Council has referred to a committee, consisting of asylum visitors with added members, the question of provision for idiots and imbeciles by the county, and has granted £100 to defray the expenses of a thorough inquiry. Such an inquiry must be of great service. It may on the one hand show how economy can be advanced by special provision for these classes, or it may result in the opinion that no good purpose can be served thereby. Of late considerable, and we think exaggerated, importance has been attached by county councils and others to this idea. We are inclined to think that success can only be expected when the total number of "lunatics" is large enough to supply a considerable number of inmates for two or more separate institutions. We can point to the examples of London and Birmingham as places where differential accommodation has answered. But we are a little doubtful whether an ordinary county of average size can find enough inmates for both an acute asylum and a receptacle for chronics.

Dorset County.—Dr. Macdonald gives the admissions for the last five years in his report, and draws from them the conclusion that they indicate a cessation of the annual rise to which we had almost become accustomed.

We congratulate him on the foundation of an Out-patient Department, which any one may attend at specified times, at Herrison, on production of a recommendation in prescribed form from a registered medical practitioner, or a justice of the peace, or a county councillor. This step, though it may not bear fruit immediately, cannot but help to familiarise the mind of the public with the fact that insanity, especially incipient insanity, is a disease for which competent medical advice can be and should be sought.

In dealing with the contemplated further accommodation for private patients, the Commissioners in their report press for its immediate

provision, and rightly, since in Dr. Macdonald's hands the results have so far shown that there is much demand for it. But we take leave to doubt whether it is wise to hold out a hope that in any case "it would also prove a very remunerative undertaking, and a saving to the rate-payers of this county" at 21*s.* per week. When interest and redemption of capital cost is taken into consideration, *plus* some increase in maintenance rate, we can hardly imagine that there will be much left even if the accommodation is always taken up. But, apart from that, any idea of making profit in this direction from the expenditure of county money will form the strongest weapon in the hands of those who wish to keep down county expenditure to the lowest point, and therefore object to any capital expenditure not absolutely essential.

Glamorgan.—The subjoined remarks by Dr. Pringle will be endorsed by many.

"The next most frequent cause, intemperance in drink, accounts for 113 of the admissions. That the drink craving is in some cases also one of inheritance is doubtless true, but that the majority of its victims have their own weakness and not their parents to blame is equally true. I fear the habit is often acquired from a false standard of manliness, and inability to say 'No' when pressed by companions or friends. I think there can be no doubt that the spread of education has not had the effect, at one time anticipated, of raising the *moral* as well as the intellectual character of the young, but has given them a craving for excitement and change, which has proved to be a curse instead of a blessing. They are taught sufficient to unsettle and make them discontented, but not enough to teach them to think and to realise that there are higher objects in life than the gratification of the senses."

The number of general paralytics admitted was high, being one out of nine admissions. But the most striking fact is that there were seventeen females to thirty-seven males.

Leicester, Rutland County.—Dr. Stewart is fortunate in being able to say that among his nearly 500 patients, he had, at the time of report, none that required caution cards for suicide.

He and a Committee have been on their travels with a view to framing a report for a new asylum.

Of 107 admissions only two were general paralytics, and, singularly enough, both were females.

Lincoln, Kesteven.—The progress in the new asylum buildings seems to give satisfaction to the visiting committee, and they hope to get the patients in next year at the appointed time.

City of London.—The present report deals with the important additions and improvements which have been made at Stone under Dr. White's direction. As will be seen in the last number of the Journal, these were formally brought into use in the early summer of this year, at a brilliant gathering of those interested in the treatment of the insane. We wish to add our congratulations to those which were offered on all hands to Dr. White on the occasion. We are very glad to see from the report that the visiting committee have marked their approval of the energy and skill which he has devoted to the subject, by a very handsome addition to his remuneration.

There is a good deal in the following:

"On opening this hospital I sought a complement of patients from other wards, especially Ward 1 F., which contains quiet and convalescent private cases, and Ward 3 F. melancholic private patients. The majority objected strongly to the move, and upon my interrogating them I learned that they all thought they would be too quiet and dull at the hospital, however beautiful its surroundings. One lady said to me, 'How would you like, doctor, to live in a village through which no one ever passed?' and I learnt from them generally that the 'through traffic,' which was so much condemned by experts in the past, brightened their days and gave opportunities for exchanging ideas with other members of our community which they could not otherwise enjoy."

Middlesex.—We note that the maintenance rate has gone up to 12*s.* owing to the cost of provisions, clothing, coals, etc.

With regard to "Female Inebriates," Dr. Gardiner Hill reports:

"Of the admissions, four criminal inebriates who had given way to violent outbursts of temper, best expressed in prison language as 'breakings out,' were brought here from the St. Joseph's Inebriate Reformatory, at Ashford. For years past the asylum has become the common receptacle of all that is mentally deficient, and under the same conditions, and with but little help for classification, it has had to provide accommodation for the acute, recovering, and the chronic cases—the insane pauper and the pauper insane, the idiot, and the senile dement—the criminal lunatic, and now the further responsibility of looking after the criminal inebriate may be added to its difficulties.

"I cannot speak too forcibly against this latter innovation. These women belong to the criminal and quasi-insane class, and are not fit companions for the ordinary patients of a county asylum. These inebriates all presumably belong to London unions, as none had ever resided in the County of Middlesex before being committed to the reformatory, and all had been convicted at London courts."

It is satisfactory to know that representations on the grievance to the Home Secretary were successful.

We note that only in 30 out of 448 admissions was intemperance in drink assigned as a cause.

Middlesborough.—Out of thirty-five female admissions four had the subjoined remarkable causation.

"Among other causes the following may be noted:—Three women were admitted suffering from self-accusatory melancholia; of these, two were remorse-stricken because they had attempted medicinal abortion (fortunately without success). In one case there turned out to be no pregnancy, which when demonstrated, removed the burden from her mind. In the other case she was delivered of a healthy child in due course, and though she declared the drug taken had injured one of its feet, she ultimately overcame this fancy and recovered. In the third case abortion had apparently been performed for medical reasons, and the shock and remorse of the supposed 'unpardonable sin' unhinged her. She also made a good recovery. A similar self-accusatory condition was found in the case of a woman admitted through intense remorse after adultery. She also got over it."

Monmouth.—Dr. Glendinning notes a decrease in deaths from general paralysis, and in the number under treatment. The returns in the Commissioners' Report for 1900 appear to indicate a considerable reduction throughout the county in admissions for that disease in comparison with the average for the preceding five years.

Nottingham City.—The following is an opinion of Dr. Powell.

"It will be observed that the number of male patients is still decreasing, and there are now fewer on our books than there were three years ago, whilst prior to that time there was an annual increase of from ten to twelve patients of that sex.

"This experience disproves the theory which has been advanced in some places,

that during periods of commercial prosperity the number of male cases increased out of proportion to the females, whilst during depression the converse took place. I think it is admitted that trade generally has been prosperous in Nottingham during the past three years, so that according to the above theory we should have had an increase in our male admissions, instead of which there has been a steady decrease. I think the more reasonable cause of our decreased number is, that we have gradually come down to a normal admission rate, from that which was for some years prior to 1898, quite an abnormal one. The same thing, however, does not obtain with reference to the females; the number of these seems to be still steadily going up."

Staffordshire (*Cheddleton*).—This asylum was, of course, able to entertain a large number of out-county patients. Dr. Menzies had some from Essex and some from Lancashire. He found the former the better workers and more easily managed. He is not particularly pleased with the Lancashire folk, though he has been able to get work out of some of them, who apparently never worked before at the asylums whence they came. He utters a warning in relation to tuberculosis against coil covers with gratings, which latter have been sedulously used as spittoons.

It is disquieting to read of an epidemic of colitis in a new asylum, involving twenty-nine cases and five deaths. The commissioners note with approval the establishment of a canteen for male attendants.

Staffordshire (*Burntwood*).—We entirely concur in Dr. Spence's remarks about the pity of receiving idiot children into an asylum for adults.

"Among the patients on the books of the asylum are 23 children (13 boys, 10 girls) under the age of sixteen. Of these 9 are subject to epileptic seizures, and all of them are either idiots or imbeciles of a low type. Two small wards—one in each division—are set apart for these patients, which might with advantage be used in other ways if a suitable house could be secured where the children could be cared for, at least as well as where they are at present, and apart from the adult insane. Such a house should, if possible, be so situated as to be fairly accessible from all parts of the county. At present children from the north of the county are sent to us, thus rendering it difficult for the parents—who, much to the credit of human nature, appear to be specially attached to their afflicted little ones—to visit them as often as they would probably wish to do. Apart from the gain to this asylum in having additional space set free for the more acutely insane, such a scheme as is here outlined would afford an opportunity of testing the question as to whether further accommodation is not really required in the county for feeble-minded children, a subject which at the present time is occupying the attention of many who are interested in the welfare of a peculiarly helpless and, it is to be feared in the large majority of cases, hopeless section of the community."

Sunderland Borough.—Dr. Middlemass again points out that he continues to receive male patients in the proportion of three to two females. He accounts to some extent for this by the greater exposure of men to alcoholic perils. Taking both sexes together one out of every three admissions was caused by drink. When the total drink cases are split up into sexes it is found 41 *per cent.* of the male cases were alcoholic, the ratio for females coming out about 20 *per cent.* He notes that general paralysis appears to be undergoing a gradual diminution.

East Sussex.—This is the first report issued by Dr. Walker, the new medical superintendent. Just one third of the admissions were actually suicidal. Over 10 *per cent.* of the male admissions were general

paralytics, a large proportion in the absence of large manufacturing or mining or seafaring centres. On the other hand phthisis only accounts for two deaths out of ninety-one. The asylum patients chargeable to the county and the county borough of Brighton have increased by 58 or nearly 6 *per cent.* during the year.

Sussex (West).—The Committee state that they have found the establishment of a pension scheme a thorny subject, and prefer to wait until Parliament has said what, if anything, it is going to do in the matter.

Dr. Kidd gives the following curious instance of self-restraint. It has quite an old-world flavour about it.

"Attempted escapes have been made in four instances, and one of these was successful. This patient (G. G—) was subject to severe attacks of excitement at night, when he was apt to be destructive and dangerous to himself, but by day he was capable of being allowed a large measure of liberty, and was freely trusted. He abused this confidence and effected his escape, and was eventually written off the books. It was subsequently ascertained that he was assisted by his friends, but was so apprehensive of the nocturnal attacks—of which he was well aware—that he had to strap himself in bed every night."

Metropolitan Asylums Board Imbecile Asylums.

The body which is responsible for these asylums has quite recently reorganised its work, and has substituted for independent committees managing the separate institutions a central committee, with sub-committees for each asylum. In this respect it has followed the example of the London County Council, and will no doubt experience the same beneficial results from co-ordination. One immediate result has been the production of full statistics on the lines of the Association's Tables, which have been adopted to the full extent.

The daily cost in respect of all charges other than those of a special nature was 1*s.* 4½*d.* for the year ending Michaelmas, 1900. The average number resident during 1900 in the three institutions was 5831.

A new departure has been taken by the hiring on lease of a large house near Ealing, in which it is proposed to place "150 educable (*i.e.* improvable) children with proper classroom, etc." There will be 90 males and 60 females. It is proposed to place the institution under the care of a headmistress or matron, assisted by a housekeeper, medical assistance for general treatment being sought locally, while the special treatment is to be directed by a medical expert visiting once a week. The Board's expressed reason for the change of practice is that medical superintendents become administrative officers instead of medical experts. However that may be, a medical superintendent trained in the service is the best guarantee for kind, efficient, and even treatment, as a rule, and we are of the opinion that the absence of a medical superintendent will make it the more incumbent on individual committee men to pay frequent and unannounced visits.

The Committee shows itself very much alive to the dangers of overcrowding, and to its duties in regard to tuberculosis, of which we shall

speak later on. They have laid down for themselves the following standard of cubic space per patient:

Standard height of apartment	12 feet.
Ordinary cases (by day)	300 cubic feet.
„ „ (by night)	500 „
Infirmary	850 „
Offensive	1200 „

These allowances for ordinary cases are considerably below the requirements of the Lunacy Commissioners for asylum inmates, being about the same for infirmary patients.

At *Leavesden* the chief subject of remark is the terrible death rate from phthisis, tuberculosis playing a principal or secondary part in 105 out of 310 deaths. The satisfactory proportion of 90 per cent. of *post-mortem* examinations leaves very little room for scepticism as to the real amount of this disease existing at death. The deaths therefrom occurred at all ages, four being of patients between eighty and ninety. Dr. Elkins states that the neighbourhood is very healthy, and free from consumption; he has no sort of doubt that the disease is bred in the asylum, and is favoured by overcrowding of a degenerate population. In consequence it was determined to enlarge the cubic space, as above, with the result that Leavesden is reduced in capacity for patients by one eighth, viz., from 2000 to 1750. Influenza was also a fatal pest, no less than fifty-one deaths, or one sixth of the total mortality, being attributable to it.

Sixty-three persons died at ages between seventy and ninety.

At *Caterham* phthisis had but little share in the mortality, eight out of 134 deaths arising therefrom. Dr. Elliott ascribes this to the salubrity of the site (chalk subsoil), and exceptionally dry bracing air.

We are accustomed to the frequent complaints in asylums as to the admission of senile dements from workhouses; it is rather startling to find that Dr. Elliott has the same complaint to make. He thinks that several of those sent to him might very well have been retained in their respective workhouse infirmaries.

At *Darenth* the deaths were few, as might have been expected from the juvenile element in the conjoined institutions; they only amounted to 75, or 3·85 on the resident population. Phthisis caused twelve of these, pneumonia eighteen, and valvular degeneration of heart twelve. General tuberculosis, however, accounted for four.

Dr. Taylor produces an interesting table, founded on Dr. Beresford's very careful inquiry into the histories of the children admitted. Fifty-four of fifty-seven males and thirty-two of forty-five females were thus followed up with accuracy. Dr. Taylor says that in dealing with congenital insanity, hereditary influences are by far the most important factors, exciting causes, as given by relatives, being of small consequence. He considers the chief hereditary factors to be insanity (including epilepsy), phthisis, syphilis, and alcohol. He enunciates another factor of great importance—abnormal labour. These causes stand thus:—History of insanity, 19 cases; of phthisis, 24; of syphilis, 3; of alcohol, 6; and of abnormal labour, 35. This latter subject will well repay further inquiry. It is seldom that in ordinary asylums is there any opportunity of obtaining information bearing on it

While at all the asylums under the board the recognition by the Medico-Psychological Association as training institutions is evidently appreciated, Dr. Taylor urges his committee to insist on the certificate as an indispensable qualification for office holding. He says that the nursing is now intelligently carried out, and the patients reap the benefit—bedsores, one of the surest tests of nursing efficiency, being now almost unknown, and this in spite of the fact that a majority of the cases are of defective habits and many crippled and helpless.

The tables of each institution are, as said above, worked out to the full, and a summary of all is likewise given. We welcome the appearance of them and the detailed reports as giving to our branch of medicine a large addition of valuable information, which has hitherto not been available. We hope at some future period to find space and time to devote to a comparison between the statistics of these and other homes for the insane.

Some Registered Hospitals.

Bethlem.—This institution has not, for some years, been receiving its usual quantum of admissions by reason of some departments being under extensive repair. The average number resident last year (213) is the lowest for very many years. We suppose that the majority of the admissions being from recent and active insanity, it has been possible to obtain more reliable information as to the causation of the disease in each case; but, however this may be, it is creditable to those concerned that in only six out of 226 cases has it been necessary to admit the cause to be "unknown." We notice, too, that in nearly 50 *per cent.* hereditary predisposition has been established. In ten cases venereal disease has been assigned. We know that this is the term adopted by the committee of the Association, who reviewed the tables, some fifteen or more years back. But since then syphilis has attracted much more attention, and it would be well in all asylums now to state it as a cause, leaving the other term for those rare cases which may be attributed, directly or indirectly, to other forms. The proportion of cases attributed to alcohol is small, being 10 *per cent.* in the male and about 4 *per cent.* in the female, the Commissioners' 5-year average for private patients being 20·8 and 9·4 respectively. The high proportion of cases caused by mental anxiety, worry, and work (28 *per cent.* in the males and 13 in the females) points to the classes from which the patients are drawn to a great extent.

Barnwood.—Dr. Soutar, like some others, is rather sceptical about the advantages of manual labour as an all-round method of treatment.

"We have tried again and again, but with no success, except in a few isolated instances, to get our patients to engage in manual labour. At our failure in this matter I am not at all surprised. Very few men who have been trained for the professions or for commercial life, as is the case with most of our patients, have any liking or capacity for manual labour on farm or garden—they are accustomed to take their exercise in other ways. I have seen patients who enjoy a brisk walk in the country, or a steady saunter in the grounds, or a game of tennis, or cricket, or bowls, dawdle listlessly and discontentedly in the garden with the unaccustomed spade, or rake, or hoe in hand—a real reproach to those who failed to ascertain how far the general theory, that manual labour is good for the insane, is applicable

to the particular individual. We now send to the garden only the very few who are willing workers."

He expresses an opinion from which we are not inclined to differ, that comparatively few patients are fit to be admitted as voluntary boarders. For some slight cases it is inadvisable that the sufferers should rub shoulders with downright insanity, while in other cases of marked insanity the application for reception arises solely with the friends who wish to avoid certificates.

"To one class of patient, however, the right of his own free will to place himself under care is an undoubted boon. This is the patient who has already recovered in an asylum from an attack of mental disorder. He has warnings of another attack. He willingly returns to surroundings with which he is familiar, and to those in whom he has confidence. The threatened illness is sometimes averted, and in less favourable cases, while still conscious of his danger, the patient has the comfort of knowing that he is carefully watched and guarded."

St. Anne's Heath.—The following are Dr. Moore's views as to voluntary boarders.

"Fifty-one voluntary boarders—22 males and 29 females—were admitted during the year, and the daily average number in residence was 30; the total number of voluntary boarders under treatment being 74.

"Thirty-two voluntary boarders—14 males and 18 females—recovered and left. Six males and 8 females were certified, and remained in the hospital.

"Several gentlemen, who were addicted to drink, came here voluntarily for treatment during the year: in some cases their condition on admission was critical, and we were able to give them the medical attention and to exercise the control which they needed; but my experience does not lead me to believe that such cases are likely to derive any lasting benefit from treatment in this hospital. I can recall no case where, sooner or later, discharge was not followed by a relapse. As a rule, in addition to the craving for drink, there is a want of moral tone; they are untruthful; I do not think they exercise a good influence on the other boarders and patients, and they are constantly endeavouring to corrupt the attendants.

"Most of the voluntary boarders at present in residence have been patients who, on recovery, preferred to remain here. I find them useful in many ways, and they take a prominent part in the social life of the hospital."

The number of admissions have considerably decreased, no doubt this being due to want of space. No less than 10 out of 57 male admissions were general paralytics. There were 2 female cases of the same disease at the end of the year.

The Retreat, York.—Dr. Bedford Pierce notes the death of a patient who was admitted in 1836, nearly two thirds of a century ago.

The following are his views as to voluntary boarders.

"There have been eight patients admitted as voluntary boarders, but of these three were certified as insane shortly after admission.

"There is no doubt as to the utility of this method of providing patients with treatment, although it often happens, as in the above cases, that the result is disappointing.

"One lady has returned voluntarily four times in the twelve months. Another came as a boarder in order to be near a relative who was under cure in the Retreat. One gentleman has wished to stay the whole year. Another, after a few weeks, recovered from a mild attack of mania without delusions, and another from an alcoholic outburst. On the whole, the voluntary patients have done well, and I am convinced that in several of the cases a decided attack of mental disorder would have developed had not the patients chosen to place themselves under care as boarders."

Patients working in the grounds can make 3*d.* per hour for 36 hours in the week for honest labour, and it is proposed to pay some of the women patients for domestic work. This is a subject quite apart, of course, from an allied proposal to pay working patients in county asylums.

Part IV.—Notes and News.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

Annual Meeting.

The sixtieth annual meeting began at 11 a.m. on Thursday, July 25th, 1901, in the Chemical Theatre of Queen's College, Cork. Dr. Fletcher Beach, the retiring President, occupied the chair. Present: E. D. O'Neill, F. O'Mara, J. A. Oakshott, Thos. Drapes, T. S. Clouston, T. W. McDowall, James Rutherford, R. D. Mitchell, John G. Havelock, W. R. Dawson, Theo. B. Hyslop, R. J. Stilwell, H. Kerr, Bagenal C. Harvey, F. W. Edridge-Green, Stephen G. Longworth, C. K. Hitchcock, C. S. Morrison, James Chambers, William Graham, M. J. Nolan, Harry A. Benham, Oscar Woods, Arthur Finegan, Alf. Miller, A. R. Turnbull, H. H. Newington, A. R. Urquhart, Conolly Norman, J. Carswell, Henry M. Eustace, Richard R. Leeper, Cecil A. P. Osburne, G. FitzGerald, D. E. Allman, L. Strangman, R. H. Steen, W. J. Mackeown.

Apologies for absence were intimated from Dr. Aveline, Dr. Macdonald, Dr. Keay, Dr. Beattie Smith, Dr. René Semelaigne, Dr. Jules Morel, and Dr. Hermann Kornfeld.

First Day.

The minutes of the preceding annual meeting were taken as read, confirmed, and signed.

Election of Officers and Council.

The meeting then proceeded to the election of officers and council, Dr. Miller and Dr. Turnbull acting as scrutineers. As the result of scrutiny, the former reported that those nominated had been unanimously elected.

President	Oscar T. Woods, M.D.
President Elect	J. Wiglesworth, M.D.
Ex-President	Fletcher Beach, M.D.
Treasurer	H. Hayes Newington, F.R.C.P.Ed.
Editors of Journal	Henry Rayner, M.D. A. R. Urquhart, M.D. Conolly Norman, F.R.C.P.I.
Auditors	Ernest W. White, M.B. James M. Moody, M.R.C.S.
Divisional Secretary for—	
South-Eastern Division	A. N. Boycott, M.D.
South-Western Division	P. W. Macdonald, M.D.
Northern and Midland Division	C. K. Hitchcock, M.D.
Scotland	Lewis C. Bruce, M.B.
Ireland	A. D. O'C. Finegan, L.R.C.P.I.
General Secretary	Robert Jones, M.D., B.S., F.R.C.S.
Registrar	H. A. Benham, M.D.
Secretary of Educational Committee	To be appointed by the Educational Committee.

Members of Council.

T. S. ADAIR, M.B.; THEO. B. HYSLOP, M.D.; H. A. KIDD, M.R.C.S.; R. L. RUTHERFORD, M.D.; J. BEVERIDGE SPENCE, M.D.; A. R. TURNBULL, M.B.

EXAMINERS.

England: THEO. B. HYSLOP, M.D.; E. B. WHITCOMBE, M.R.C.S. Scotland: G. M. ROBERTSON, M.B.; LEWIS C. BRUCE, M.B. Ireland: M. J. NOLAN, F.R.C.P.I.; CONOLLY NORMAN, F.R.C.P.I.

Examiners for the Nursing Certificate of the Association.

R. PERCY SMITH, M.D.; J. B. SPENCE, M.D.; A. CAMPBELL CLARK, M.D.

ELECTION OF ORDINARY MEMBERS.

The following candidates were proposed for election as ordinary members:—Passmore, William Edwin, L.S.A.Lond., 2, Sylvan Villas, Woodford Green, Essex, late Clinical Assistant, Junior and Senior Assistant Medical Officer, Wandsworth Infirmary, S.W. (proposed by F. W. Mott, F. R. P. Taylor, and R. Jones); Slater, G. N. O., M.D., Assistant Medical Officer, Essex County Asylum, Brentwood (proposed by W. R. Hanbury, G. Amsden, and John Turner); Tighe, John, M.B., B.Ch., B.A.O.Ireland, North Riding Asylum, Clifton, Yorks (proposed by J. Tregellis Hingston, H. Hayes Newington, and Robert Jones); Torney, George Parsons, A.B.Dublin, L.R.C.P.I., L.R.C.S., and L.M., Medical Superintendent County Asylum, Lincoln (proposed by G. H. Johnstone, H. H. Newington, and Robert Jones); White, William, M.B., B.Ch., B.A.O., R.U.I., Assistant Medical Officer, District Asylum, Waterford (proposed by J. A. Oakshott, Arthur Finegan, and Robert Jones).

Dr. TURNBULL, for the scrutineers, announced that they were all unanimously elected.

ELECTION OF HONORARY MEMBER.

Dr. URQUHART next proposed that Dr. Edouard Toulouse be elected an honorary member of the Association. He said, "This nomination has been signed by Dr. Clouston, Dr. Newington, Dr. G. H. Savage, Dr. Beveridge Spence, Dr. Robert Jones, and myself. Dr. Toulouse is a distinguished member of the Medico-Psychological Society of Paris, and is Physician-Superintendent at Villejuif Asylum, one of the most important institutions in Paris. In that capacity he has gained the confidence of the authorities there, and of all those associated with him in our department of medicine. He is one of the most industrious workers in psychiatry. I lay on the table a list of psychological works published by Dr. Toulouse. These are valuable and voluminous, but perhaps he is best known to us by his important report on the asylums of Great Britain to the Council-General of the Seine. Dr. Toulouse is also editor of the *Revue de Psychiatrie*, a journal which he conducts in a very able manner." Dr. Toulouse was elected by acclamation.

ELECTION OF CORRESPONDING MEMBER.

Dr. URQUHART.—I have now to propose for election as a corresponding member Dr. Manheimer-Gommés, Chef de Clinique des Maladies Mentales à la Faculté de Médecine, Paris, who has paid special attention to the mental troubles of infancy. He has been physician to the Bureaux de Bienfaisance de Paris. He is also the Assistant in the Police Prefecture, where insane persons apprehended come in the first instance. He was one of the secretaries of the Congress of Psychiatry held in Paris last year. I lay a list of his publications on the table. Probably the best known to us is his work on *The Mental Diseases of Infancy*, honourably mentioned by the Academy of Medicine.

The PRESIDENT.—I may say that Dr. Manheimer-Gommés is a personal friend of my own, and during our visit to Paris last year he was most attentive and courteous in every way.

Dr. Manheimer-Gommés was elected by acclamation.

Report of Treasurer.

Dr. Hayes Newington, as Treasurer, brought up the balance-sheet and, on the suggestion of Dr. Clouston, gave some details of the various sources of income and expenditure. He said: Upon the whole the Association is doing very well; it pays its way with a little over. Of course the yearly surplus has to be discounted to a certain extent by the amount of subscriptions that have to be written off yearly and put against the balance. The accounts have been before the auditors as usual, and they will present their report in due course. With regard to the Journal account, that does not need much explanation. It is entirely in the hands of the editors, who are men of experience. A considerable amount of money is expended, but we get value for it. Taking the Examinations account, you remember that an extra 2*s.* 6*d.* was charged to each nursing examination candidate; the whole of that goes to the examiners, of whom there are three. Last year that item only amounted to £7 10*s.* This year it is upwards of £60, yet a small sum in comparison with the trouble of examining so many papers. Then for clerical assistance to the Registrar £7, which the Council has to-day increased to £20. It is difficult for any medical superintendent to get his clerk to help him year after year in regard to hundreds of applications with any feeling of justice for the pittance now allowed, so it is proposed to give the clerical assistant the minimum sum of £10, and a sum of 4*d.* *per caput*, which will bring it up to £20. I think that the petty disbursement account is a very moderate one considering the amount of correspondence carried on by the officers. With regard to the cost of the annual, general, and divisional meetings that sum is rather less than last year. Of course there is a large amount of printing for these meetings. Since we have had these divisions established the expense on this head has gone up, but as a rule the charges are very moderate. We have now established a certain standard from which the divisional secretaries are not allowed to stray without remonstrance. The rent of premises is £40, and the audit and clerical assistant six guineas. The miscellaneous account is always a very uncertain item. Last year it was heavier than this year. There was a good deal of printing for Parliamentary work, for new Rules, and also for the Tuberculosis Committee. This year we have had no Parliamentary Committee expenses. Turning to the income, the dividend, £13 10*s.* 8*d.*, is the income of the old Association Stock. There is another sum of £336, the amount collected as a testimonial to Dr. Hack Tuke. The interest of that goes to the library account. The sale of the Journal is uncertain, about £200. The sale of the Handbook is very uncertain; it seems to be going on as usual. Under the head of advertisements in the Journal there is a considerable increase. It is more than £12 in excess of last year. The fees for the Psychological Certificate in Medicine are very small indeed; they used to be a very fruitful source of income. Now the cost of examining these gentlemen is a great deal more than the money we get from them. This year there are only six guineas, as contrasted with twelve guineas last year. The fees for the Certificates of Proficiency in Nursing are an increasing amount; but, as I explained before, the sum will be much larger in the current year, while the profit to the Association will not be increased. The subscriptions steadily increase. That is the chief point, we must make the subscriptions larger by increasing the number of new members. I do not think there is anything to be said upon the subject of our liabilities. As regards the Gaskell Fund, sometimes we have to pay out a little more than we have received during the year; it may be an asset one year and a liability the next. We get £44 on dividends yearly, and most of that goes for the gold medal and substantial prize. If no person gains it we place it in a special deposit account, which now reaches £100.

Report of Auditors.

We have this day examined the Pass-book, checked all vouchers, and investigated the income and expenditure in detail. We have pleasure in reporting a net increase at the close of the financial year of twenty-two in the membership. We also note material addition in the receipts from advertisements in the Journal. The fees for the examination for the Medico-Psychological Certificate have largely

REVENUE ACCOUNT—January 1st to December 31st, 1900.

1899.	Dr.	Expenditure.	£ s. d.	£ s. d.
£ s. d.				
513 7 1		To Journal, Printing, Publishing, Engraving, Advertising, and Postage	546 6 5	
67 19 10		,, Examinations, Association Prizes, and Clerical Assistance to Registrar	100 0 11	
48 3 7		,, Petty Disbursements, Stationery, Postages, etc.	60 12 9	
134 8 2		,, Annual, General, and Divisional Meetings ...	127 9 11	
		,, Rent of Premises at 11, Chandos Street, care of Office, etc.	51 0 0	
51 0 0		,, Audit and Clerical Assistance	6 6 0	
6 6 0		,, Miscellaneous	40 19 10	
36 6 4		,, Library	– – –	
15 0 10				932 15 10
70 13 6		Balance		44 19 7
£943 5 4				£977 15 5

1899.	Cr.	Income.	£ s. d.	£ s. d.	£ s. d.	1899. £ s. d.
		By Dividends			13 10 8	10 10 6
		,, Sale of Journal	185 14 4			
		,, Sale of Handbook	25 1 4			
		,, Advertisements	44 15 10			
					255 11 6	232 5 4
		,, Fees, Certificates of Psychological Medicine ...	12 12 0			
		,, Fees, Certificates of Proficiency in Nursing ...	88 12 9			
					101 4 9	115 2 0
		,, Subscriptions			607 8 6	585 7 6
					£977 15 5	£943 5 4

BALANCE-SHEET—31st December, 1900.

1899.	Liabilities.	£ s. d.	£ s. d.	£ s. d.
£ s. d.				
26 19 4	Journal Account, balance of	27 6 6		
10 1 0	Petty Disbursements Account, balance of ...	4 15 0		
45 7 9	Examinations Account, balance of	7 0 0		
4 5 0	Meetings Account, balance of	2 19 1		
– – –	Gaskell Fund	1 16 2		
21 0 0	Rent Account	– – –		
13 8 9	Miscellaneous	– – –		
– – –	Library	10 15 3		
				54 12 0
1135 9 5	Balance :—Balance on 1st January	1135 9 5		
	Add:—Balance of Revenue Account	44 19 7		
	Increase in value of New Zealand Stock ...	£3 2 2		
	New Zealand Stock (Hack Tuke Memorial)	3 4 1		
			6 6 3	
			1186 15 3	
	Deduct:—Subscriptions written off ...	£15 15 0		
	Decrease in value of Victoria Stock	2 0 0		
			17 15 0	
				1169 0 3
£1255 11 3				£1223 12 3

1899.	Assets.	£ s. d.	£ s. d.	£ s. d.	1899. £ s. d.
	Lloyds Bank:—Bankers			239 3 7	246 5 2
	New Zealand Stock:				
	£3½ per cent. value at this date ...	£326 10 2			
	Hack Tuke Memorial	336 15 4			
	Victoria Stock (Dr. Paul's bequest)	98 0 0			
				761 5 6	756 19 3
	Sales Account, balance			115 18 8	111 8 4
	Subscriptions Account, balance			107 4 6	113 18 6
	Fees Account, balance			– – –	26 19 0
	Gaskell Fund			– – –	0 1 0
				£1223 12 3	£1255 11 3

E. WOODINGTON, *C.A.*

H. HAYES NEWINGTON, Treasurer.

diminished, and we would draw attention to the fact with a view to the examination being made, if possible, more attractive.

ERNEST W. WHITE,
DAVID BOWER, } *Auditors.*

The report was adopted on the motion of Dr. Woods, seconded by Dr. Oakshott.

Dr. CLOUSTON.—I am sure we are much indebted to the Treasurer. He may think we are unnecessarily particular in looking into items, yet, when one has a balance sheet of this kind, which in many respects is exceedingly satisfactory, but which shows that while last year we had a balance of £70 we now only have a balance of £44, while £15 was spent upon the Library last year and nothing this year, I am quite sure the members will see that we ought to look into these matters very closely. It is good for the Association we should do so. If it had not been for the increase in our income we would not be in a satisfactory position. We are, I am happy to say, a greatly advancing Association; our income is increasing every year, and the question arises whether we should not look to our officials to see that the balance to our credit increases also. I beg to move the adoption of the Treasurer's Report.

Dr. URQUHART.—The Treasurer is not in a position to make money for this Association; he can save it, but he cannot make it. Our members, however, could increase the income by taking a little trouble. You will see by the accounts that the receipts for advertisements for last year was £44, compared with £30 the year before. That increase is directly due to a few active members of the Association, who have induced advertisers to use our JOURNAL for business purposes. Advertisements are the last items to come to a journal, and the last to leave it. If a journal has a reputation, it is not difficult to get advertisements for it. I would impress upon our members to be a little more earnest in increasing the finances of the Association. They could do so easily if they only tried. I beg to second Dr. Clouston's motion.

Dr. NEWINGTON.—Dr. Clouston is quite right in his contention for consideration of details, but I am bound to point out that only within certain limits can the expenditure of the year be anticipated. The meetings of all your committees are absolutely necessary, and they cost money. Then there are unforeseen charges; this year, on the occasion of the death of the late Queen, the Association voted an address of condolence to His Majesty which cost ten guineas.

The report was adopted.

COMPLIMENTARY MOTION.

The PRESIDENT.—I now beg to move a hearty vote of thanks to the officers of the Association for their work during the past year. First on the list is our respected Treasurer. Since Dr. Newington took up the treasurership everything has gone on satisfactorily. I am sure that he is only too anxious that his accounts should be looked into. We owe a great debt of thanks to our Treasurer for placing us in a sound financial position. Then our next officer is our General Secretary. Well, I have been General Secretary myself, and I know something of the work that has to be accomplished, and I can safely say that since Dr. Jones has taken up the work he has done it in a most enthusiastic manner. I know that in order to work up the last meeting he wrote no less than 100 letters. That shows more eloquently than I can describe his interest and enthusiasm in the work. We owe him a great debt of thanks. Then comes our respected Registrar, Dr. Benham. Of late his work has been trebled. Although some members expressed dissatisfaction at the late arrival of the certificates, if they only knew the work Dr. Benham had to do, and the numbers of signatures he had to obtain before they went out, I think every one would be satisfied. To him too we owe a debt of thanks. There are also our Editors. We are deeply indebted to them for the work they have done so satisfactorily.

The motion of thanks was adopted with acclamation.

Parliamentary Committee.

Dr. Hayes Newington presented the report of the Parliamentary Committee. "No lunacy bill having been introduced in the present Session there has been little to discuss, but in anticipation of such an event, a memorandum was drawn up and forwarded to the Lord Chancellor. This dealt as heretofore with the pension question, and some minor matters." We have held two meetings, but there has been very little to discuss. In anticipation of legislation, one of the matters suggested to the Lord Chancellor as needing reform was the use in legal documents of the word "lunatic." It is a most abominable term, and there is no reason why the law should continue to offend patients by having served on them legal documents in which they are described as alleged lunatics. Whether the Lord Chancellor will do what we suggested I do not know, but patients at present are certainly insulted and prejudiced in a manner which would cause us to dismiss attendants if they used the same language. I beg to move the adoption of the Parliamentary Report.

Dr. Hyslop.—I beg to second that.

The report passed unanimously, and the Committee were re-appointed on the motion of the President.

Educational Committee.

The Registrar (Dr. Benham) reported that 521 candidates entered for the nursing examination in May last: 411 were successful, 98 failed, and 12 withdrew; 71 failed in the written paper, 49 in *viva voce*, and 22 in both. Net failures, 98, as above.

Dr. Clouston said, owing to the unavoidable absence of Dr. Percy Smith, the Chairman, and Dr. Mercier, the Secretary, of the Educational Committee, we were rather unfortunate when we met this morning and considered a great many questions.

The Nursing Examination under the new system has been regarded as much more satisfactory than under the old. I am sure that the Association will be glad to hear that, and that the slaughter of the innocents has not turned out much greater than was expected. The nurses have shown themselves to be fitted for their duties in a large proportion, so far as that fitness could be tested by that examination.

The Certificate in Psychological Medicine has been diminishing year by year, and the Committee discussed this question with great concern. We had two propositions before us. One was that the Certificate should be allowed to die a natural death. A great many powerful objections were urged against that course, and so powerful were they that no one took that proposal into serious consideration. Another was to revive interest in this Certificate, to add to its value, and to attract a larger number of candidates. We shall meet again to-morrow morning to further consider this question, and we shall be very glad to have any suggestions from members of the Association. We are anxious to make it more successful than it has been for the last two or three years. We must put it out of pain or revive it. No doubt all the teachers will give it their attention. There was one point on which we agreed—that students, who are now obliged to study mental diseases, should be specially encouraged to come forward and pass the examination for the Certificate, which will be given to them when they are duly qualified medical men. If we find it past praying for, then we shall bury it decently, but we meanwhile hope to revive it.

Dr. Hyslop.—The point is, how to get more candidates for this Certificate. Young men working in asylums ask, "Does it enhance my value if I add M.P.C. to my name?" and the medical superintendent too often says, "What is the good of it? I am medical superintendent and have not got it." A large percentage of the men now entering for this Certificate are induced to do so in order to get some appointment abroad, in the colonies, or in the prison service. These candidates, as a rule, are not able to spend many months in an asylum; they can only attend a course of lectures and follow out the morning work of an asylum. Shall we only admit students who have attended courses of lectures under recognised lecturers? This raises a wide question. In Edinburgh, where there are very many students, it is easy for the lecturers there to say that the examination

for the Medico-Psychological Certificate will he held in a convenient place. We can similarly command the medical students in London; but we cannot command them in Leeds, Birmingham, Manchester, and other places. We shall have probably to devise some scheme by which we can meet this difficulty.

Upon the proposition of Dr. EDRIDGE-GREEN the Committee was re-appointed.

LIBRARY COMMITTEE.

Dr. URQUHART read the report of the Library Committee as follows:

The Library Committee beg to report that, by the kindness of Dr. Newth, who has made a catalogue of the subjects of the books in the Library of the Association, they are enabled to-day to present a printed proof catalogue. The Committee owe their best thanks to Dr. Newth for the work which he has done, and are of opinion that it should be recognised by the Association. Messrs. Adlard and Son estimate that the cost of printing 750 copies will be £8 0s. 6d. The Committee ask to be reappointed.

Proceeding, he said: I have been asked to move that this report be adopted, and that the thanks of the Association be given to Dr. Newth. He has been a very good friend to this Association; he has prepared the indexes for the JOURNAL for many years, and he has now given us a most valuable subjects-catalogue of our Library. In adopting this report you adopt the suggestion of the Committee to print 750 copies of the subjects-catalogue for the use of the members of the Association, and you also re-appoint the Library Committee.

Dr. CLOUSTON.—I beg to second the adoption of the report, and would suggest, if it is not too late, that every alternate page in the catalogue be blank, so as to leave space to enter new works as they reach the Library from time to time.

Dr. HYSLOP.—Might I ask if any additions have been made to the Library? Can you give us any details as to them? as I think that a great number of books must be coming to the Association.

The PRESIDENT.—The reason we did not spend money last year was that we knew the catalogue was being prepared, but we did not know what it would cost. After the catalogue is published we shall use the interest on the Hack Tuke Fund to make additions to the Library.

Dr. HYSLOP.—Are any books added except those bought by the Association?

The PRESIDENT.—None this year.

Dr. MORRISON.—Are the exchange journals to be found in the Library?

Dr. URQUHART.—I understand that Dr. Morrison and Dr. Hyslop have referred practically to the same point. The Library of the Association was founded by the bequest of Dr. Hack Tuke, enlarged by others from year to year. Additions to the Library are notified in the JOURNAL quarterly, as they may be received by Mr. Hall at 11, Chandos Street. The list is very meagre. The exchange journals make a long list; we are continually being asked to increase that list, and have to consider carefully how far these proposed exchanges would be useful to us. Under Dr. Lord's careful management the exchange journals are not now worked upon from the point of view of languages, but from the point of view of subjects, and this necessitates these periodicals being distributed to different workers piecemeal. They are torn into sections, and cannot be reconstituted and put in the Library. They are dealt with for the purposes of the JOURNAL, and the matter is published in short abstracts. In any case we could not find space for them on the shelves of the Library. We have not even room for the back numbers of the JOURNAL, now in Dr. Bower's care. With regard to the books which are sent to the *Journal of Mental Science* for review, they are fairly numerous. These reviews are made by gentlemen who mostly work for the *Journal of Mental Science* gratuitously. If you paid these gentlemen for their labours you might ask them to return the books to the Library, but the least you can do under present circumstances is to allow them to keep the books.

In reply to Dr. Nolan, any member who wants a book from the Library has only to write to Mr. Hall, and it will be sent to him. The catalogue is not efficient for London alone.

Dr. HYSLOP.—I do not think you should distribute your property in this way. We are losing an opportunity of making a valuable library by giving away these books. When I was reviewing for the *Journal of Mental Science* I was asked to

return the books. I did so, and it was quite right. If you want to recompense the reviewers, give them a few dollars. I move that the books sent to the JOURNAL for review should become the property of the Association, and be placed in the Library.

Dr. O'NEILL.—I beg to second that.

The PRESIDENT.—It has been moved and seconded that the report be adopted. Do you move an amendment, Dr. Hyslop?

Dr. MORRISON.—When in London I went to the Library to search for a publication, the review of which I had read in the JOURNAL, and could not get it. When reviewers choose to review for the benefit of the Association, and partly for their own benefit, the books should not be retained by them. They should be kept for future reference. I think it is a deviation from all the principles upon which public libraries are conducted that these books should not be sent to the Library for the benefit of our members.

Dr. EDRIDGE-GREEN.—I strongly oppose that proposal. I have not reviewed for the *Journal of Mental Science*, so I can speak with absolute independence. At the same time I have done a great deal of reviewing for the *British Medical Journal* and other periodicals, and not only does one always receive the print, but he is never asked to return the book, besides being paid for the review as well. As Dr. Urquhart has stated, when a man takes considerable trouble to review a book he should be allowed to keep it. Furthermore, as the reviews in the *Journal of Mental Science* are generally signed, the reviewers would no doubt prefer to keep the book at hand in case of a dispute arising.

Dr. RUTHERFORD.—I think strongly that we should adhere to the usual practice of allowing the book to remain the property of the reviewer.

Dr. CLOUSTON.—I think it would be a wise step to ask the Editors to report upon this matter.

Dr. HYSLOP.—I will withdraw my amendment in favour of Dr. Clouston's.

Dr. URQUHART.—There are two additions to the report. One is the suggestion by Dr. Clouston that the catalogue be interleaved so as to leave room for recording of new books; and the other is the suggestion by Dr. Hyslop that the Editors should report as to whether reviewers should retain the books they deal with. I undertake to report upon these suggestions at the next meeting of the Council in London.

The report was then unanimously adopted with the additions proposed.

REPORT OF COUNCIL.

The number of members of this Association for the year 1900 was as follows:—Ordinary members, 568; honorary members, 38; corresponding members, 10; total, 616: or comparing with previous years—

	1900.	1899.	1898.	1897.
Ordinary	568	550	540	524
Honorary	38	36	38	38
Corresponding	10	12	12	12
	616	598	590	574

Three honorary members and 2 ordinary members died during the year; 19 members resigned; 46 members were elected during the year.

Meetings.

The Annual Meeting was held in July, 1900, in London, under the presidency of Dr. Fletcher Beach, and was successful. It was well attended, and the hospitality of Mrs. Beach was much appreciated by the members.

Three general meetings were held, one at the West Sussex Asylum, Chichester, in February, through the courtesy of Dr. Kidd; papers having been read during the year by Drs. Maudsley, Savage, and Sir Dyce Duckworth, and much interest has thereby been evinced in the discussions.

The Divisions have held meetings, and those held in the South-Western Division have materially added to the membership of the Association.

Committees.

Much work has been done by the various standing and special Committees. The Report of the Educational Committee to the Council recognising special Asylums for training has been adopted, and has resulted in systematic training in these institutions, which cannot but add considerably to the effective and methodical supervision of the insane. There has been a considerable appreciation of the Certificate of the Association for Mental Nursing in consequence.

The Parliamentary Committee has watched legislation, and has rendered valuable service to the Pension question.

The Tuberculosis Committee continued its investigations during the year, and may shortly issue its report, which is awaited with interest.

AUTHORS' RIGHTS.

Dr. URQUHART.—In accordance with notice of motion, I beg to move that we consider the right of the Medico-Psychological Association in all papers read at its meetings, and whether all communications to the Association should not be the property of the Association. I expect to have the active support of Dr. Hyslop and Dr. Morrison for this resolution. The rule of the British Medical Association in regard to this point is well known, and I think that we should adopt it with a slight modification. If any paper is read before a meeting of the British Medical Association it at once becomes the property of the Association unless the Council waive their rights. When our rules were being reorganised some years ago I moved for this rule, with the modification that the President alone should deal with the author, because it is inconvenient for us (as, indeed, it is for the British Medical Council) to take immediate action on questions of this sort. We have every confidence that our Presidents will do the right thing for us and for the authors. An objection was urged by Dr. Mercier. He said, "Suppose an author brings part of a book which he is writing, and reads it to the Association; he would, therefore, part with his copyright in that portion of the book." It might be valuable for him as an author to have the criticism of the Association upon it, but it would be manifestly unfair for the Association to have the benefit of his paper to his detriment. That difficulty is removed, if the author so desires, by arranging with the President that the copyright is to remain his own exclusive property. Last year there was an unfortunate misreading of our rules, and the mistake was much to be regretted. It would, therefore, be desirable to let it be thoroughly understood that we claim all papers read at our meetings as the property of the Association, unless the President previously to the meeting sees fit to waive our claim, on the previous written request of the author. Dr. Weatherly, Dr. Beach, and other gentlemen in the past have thought that we hid our light under a bushel, that we did not sufficiently advertise our meetings, that we did not make known sufficiently to the medical profession that we had these meetings, and did not explain the nature of them; and it was therefore agreed that the Council instruct the secretaries to publish in the medical Press notices of our meetings, and short summaries of our proceedings. This may have the beneficial effect of bringing the Association into touch with the general body of the medical profession, but it must be done judiciously. We cannot have the best part of the *Journal of Mental Science* anticipated or cut out. When the weekly medical journals see anything of interest to their readers in the *Journal of Mental Science* they reproduce a practical synopsis of the paper. That is a practice of which we are naturally proud, not forgetful that in the past we had to go to the British Medical Association and ask them to give us their discarded material. Our improved position is directly due to the development of the Association in its Divisional Meetings. I move that all papers read at the general or divisional meetings of the Medico-Psychological Association shall be the property of the Association unless the author shall have previously obtained the written consent of the President to the contrary.

Dr. CLOUSTON.—I beg to second this. It is a question of [illegible]

The proposition was carried unanimously.

The meeting then adjourned at one o'clock for lunch, after [illegible] been photographed in the College quadrangle.

The meeting having reassembled at two o'clock,

Dr. FLETCHER BEACH, now ex-President, said: It is my pleasing duty to introduce to you the President of our Association, Dr. Oscar T. Woods. He is a gentleman who has accomplished much for us, first as Irish Secretary for many years, and afterwards as examiner of the Irish medical students who presented themselves for our examination. I am sure that it must be a pleasure to him to take the chair in the city of Cork, and I hope that during his Presidential year he will be favoured with health and prosperity.

Dr. Woods then assumed the Presidential chair amid hearty applause.

Dr. CLOUSTON said: Before we part with our retiring President it gives me very great pleasure indeed to move a vote of thanks to our retiring President, Dr. Fletcher Beach. We all know his distinguished career in connection with this Association, how much he has done for us, and what an admirable President he has made, how favourable and just his rule has been, how well he has attended our meetings, and how he has devoted himself to the welfare of the Association. I shall consult his feelings by not enlarging further on his merits, and therefore content myself with moving a hearty vote of thanks to Dr. Beach for his conduct in the chair during his Presidency.

Dr. HAYES NEWINGTON.—I beg formally to second that proposition. I cannot add anything to what Dr. Clouston has said of Dr. Beach. We are all very grateful to him.

The PRESIDENT.—My first duty in this chair is a very pleasant one, and I hope that all my duties will be equally pleasant. I declare the vote of thanks to Dr. Beach for the admirable manner in which he has performed his duties carried by acclamation.

Dr. BEACH said: Mr. President and Gentlemen, I am very deeply indebted for the hearty vote of thanks which you have accorded to me. Whatever I have done has been a labour of love. I have had a long connection with the Association, and while life endures I shall do all that is possible for it.

The PRESIDENT, Dr. Oscar Woods, then delivered his Presidential address (see page 645).

Dr. CARSWELL read a paper on the "Inebriates Acts" (see page 658).

Dr. DRAPES read a paper on "Insanity and Phthisis" (see page 667).

Dr. EDRIDGE-GREEN read a note on the "Evolution of the Colour Sense" (see page 678).

Dr. O'NEILL read a paper on the "Superannuation Question" (see page 679).

Dr. NOLAN requested leave to withdraw his paper in favour of Dr. Graham's, and this was permitted.

Dr. GRAHAM addressed the meeting on "Proposed Changes in Asylum Management" (see page 687).

In the evening the Association held its Annual Dinner in the Imperial Hotel, Cork, and had the honour of entertaining a number of distinguished guests. Oscar Woods, M.D., the President, was in the Chair.

SECOND DAY.

Dr. OSCAR WOODS took the chair at 10 o'clock, and intimated that Professors Dixon and Bergin were prepared to give a Demonstration of Stereoscopic Radiography. Many members took advantage of this opportunity, and conveyed their warm thanks to the Professors.

Dr. BOLTON gave a lantern demonstration on "Gross Lesions of the Cerebral Cortex" (see page 729).

Dr. REVINGTON's paper on "Mental Conditions resulting in Homicide," in the absence of the author, was reserved for the next Divisional Meeting in Ireland.

Dr. KEAY's paper was not read owing to the unavoidable absence of the author, but it is published at page 721.

Dr. URQUHART read a paper on "The Effects of Change of Asylum on Insane Patients" (see page 703).

Dr. LEEPER described three cases of melancholia with symptoms of unusual clinical interes[illegible]e page 758). He exhibited a series of photomicrographs and slides illustrati[illegible] the degenerative changes which occur in the nerve-cells in cases of chronic mania, senile dementia, and general paralysis.

Dr. DAWSON read a paper on "Suprarenal Extract" (see page 708).

Votes of Thanks.

Dr. Fletcher Beach proposed a resolution of thanks to the President and Council of Queen's College, Cork, for the use of the building for the meetings of the Association during their visit to Cork.

Dr. Benham seconded the resolution.

The motion was carried with acclamation.

Dr. Urquhart.—I feel, Mr. President, that we cannot separate without expressing our gratitude to you for your kindness on this occasion to the members of the Association. We are all alive to the great amount of trouble you have taken to make this meeting in Cork a real success, and we express the hope that you felt some gratification in the support of so many of your colleagues when you were inducted into the Presidential chair.

Dr. Havelock.—This motion hardly needs a seconder, but I wish to express my concurrence in what has fallen from Dr. Urquhart. I personally never before enjoyed a meeting of the Medico-Psychological Association so much, and my only regret is that I am not able to spend some months in the south of Ireland with you.

The ex-President put the motion to the meeting, and it was passed with acclamation.

The President.—I am exceedingly obliged to you. It has been a very happy time for me. I hope, when you have discharged me a year hence, that you will then be as pleased with me as you are now.

Council Meeting.

Present: Dr. Fletcher Beach (President), Drs. Woods, Benham, Dawson, Turnbull, Havelock, Chambers, Urquhart, Newington, A. Miller, Finegan, and Norman.

Inter alia the usual official reports were received and dealt with.

The Report of the Committee on Colonial Branches was referred to next meeting of Council.

The reprinting of the Rules of the Association was referred to the Rules Committee.

The business of the Annual Meeting was adjusted.

The next meeting was fixed for the third Thursday of November in London.

The Council generally approved of Dr. A. Miller's proposals for the establishment of a Bureau of Information regarding Asylum Administration, and authorised him to obtain such information as he deems necessary. (Cf. *Journal of Mental Science* for 1901, page 625.)

The General Secretary was directed to write various letters of thanks for the hospitality received by the members of the Association in Cork.

Excursion to Killarney.

Any account of the annual meeting would be incomplete without special reference to the excursion to Killarney. Thirty-six ladies and gentlemen left Cork to see one of the most interesting and beautiful parts of Ireland. The excursion was made by rail and carriage, by way of Bandon, Bantry, Glengariff, and Kenmare. The arrangements made by Dr. Woods were perfect, and the trip was greatly enjoyed from start to finish.

BRITISH MEDICAL ASSOCIATION.

Annual Meeting, Cheltenham, 1901.

Section of Psychology.

Reported by J. G. Havelock, M.D.

President: J. Beveridge Spence, M.D. Vice-Presidents: J. Greig Soutar, M.B.; James Chambers, M.D. Honorary Secretaries: Maurice Craig, M.D.; A. A. Deykin Townsend, M.R.C.S.

The papers read in this section dealt with a wide range of subjects and evoked interesting discussions.

President's Address.

Dr. Spence, in his introductory remarks on "Asylum Administration and Nursing," referred to the great improvements in the care and treatment of the insane which had taken place in this country during the nineteenth century, and vividly contrasted the condition of the asylum inmate of the present day with that of the mentally afflicted a hundred years ago. The marvellous progress in this and other directions had made the Victorian era a golden one; and he urged that we should not rest content with being merely grateful, but should endeavour to continue the great work which has made the names of Tuke, Conolly, the Brownes (father and son), Bucknill, Maudsley, Clouston, and many others honoured in our speciality.

He regretted, however, the establishment of the huge asylums to which unhappily use is accustoming us, as in the medium-sized asylum there is just that amount of work which any man who was worthy of his position should be able to supervise. As a question of expense, he had yet to learn that the medium-sized asylum is more costly in its management than the large establishments, which, while they excite the wonder of the inexperienced, produce only feelings of regret in the minds of those who have to govern them.

In connection with the unfortunate necessity for providing additional accommodation for the insane, he was convinced that the time had now come when some change in the classification of patients might well be attempted. There is a large class of demented lunatics and unteachable imbeciles in asylums for whom plain housing and plain dieting might well answer. He urged that some such accommodation and treatment for these classes of patients should be provided in the counties as are given in London, thus relieving the acute asylums and enabling them to carry out the work for which they should, in his opinion, be reserved. While no expense should be spared to provide the necessary appliances and the most favourable environment for the curable, yet in many of the incurably insane and mentally deficient a kindly, judicious, and truly philanthropic system of treatment might be adopted without loss of benefit to the class in question, and at a much reduced cost to the rates.

He was delighted to think that the trend of educated opinion in this country was in favour of segregation in the treatment of those suffering from mental disorders of a curable nature.

The Rôle of Toxic Action in the Pathogenesis of Insanity.

Dr. W. Ford Robertson, in opening a discussion on this subject, said that whatever else mind might be, it was in the first place a product of the functional activity of certain of the cerebral neurons. For the normal manifestation of this functional action three factors were essential, namely, (1) integrity of the anatomical elements which form the physical basis of mind (cortical neurons); (2) suitable nutritional conditions for these anatomical elements; and (3) those sensory impulses which, commencing to impress the anatomical elements at an early period of life, gradually endow them with their special functional powers, and of which the almost continual stimulus is required in order to call these powers into action. Morbid mental action might primarily depend on a fault of any one of these factors. Unsuitable nutritional conditions might in part be due to the presence of chemical substances which were taken up by the cells, and then disordered their metabolism. Any such substance was a toxin. He maintained that various forms of toxæmia of gastro-intestinal origin were the chief factors in the pathogenesis of several forms of mental disease. These diseases included a large proportion of cases of senile insanity, general paralysis, locomotor ataxy, chronic alcoholic insanity, and most cases of acute and chronic mania and melancholia.

In fact, he contended that the large majority of the cases of insanity were not primarily diseases of the brain at all, but were dependent upon the toxins derived from elsewhere.

Dr. Robertson then gave a lantern demonstration of degenerative changes in the alimentary tract, of cases of general paralysis, etc., which in his opinion were strong evidence in favour of the toxic origin of those diseases.

Some Conditions of Success in the Treatment of Neurasthenia.

Dr. A. T. Schofield said that he used the word "neurasthenia" in the broadest sense, and included hysteria in it. The physician should realise in regard

to hysterical patients the significance of the dictum that "diseases of the imagination are not imaginary diseases." The attitude of the physician should, on the whole, be dogmatic and weighty; the nurse placed in charge should be docile and unaggressive, one of a type intermediate between the hospital and asylum nurse. Neurasthenics required rest, with a little massage and some degree of over-feeding. Hypnotism was of doubtful value, electricity was better on account of its direct action on the tissues, while cycling and golf were powerful therapeutic aids to treatment.

The Anthropometrical Examination of Insane Patients.

Dr. Goodall, who read an exhaustive paper on this subject, and submitted a scheme of examination, pointed out that the United States and Italy were far ahead of us in this respect. In twenty-eight normal subjects the measurements on the two sides of the body showed that little asymmetry existed, but marked asymmetry was the rule in the insane.

Puerperal Insanity.

Dr. Robert Jones, in opening a discussion on puerperal insanity, stated that insanity actually occurred but once in 700 confinements. Taking the total of 3500 females admitted to Claybury during the past eight years, exclusive of transfers from other asylums, 56 were cases of insanity of pregnancy; 120 were cases of puerperal insanity in the stricter sense—*i. e.*, occurring within six weeks of confinement; and 83 were of later development and associated with lactation. Twelve per cent. of the 259 cases were single women, and the outbreak of insanity was twice as frequent during pregnancy in these cases as in the puerperium. Of the puerperal cases more suffered from mania than from melancholia. Of the eighty-three lactational cases a greater proportion suffered from melancholia or depression than from exaltation. The almost universal early symptom of puerperal insanity was insomnia, followed by a feverish and anxious restlessness. Suspiciousness, loss of appetite, and a proneness to delirious excitement followed. It was important to pay attention to sleeplessness and headache in puerperal women. In puerperal insanity the woman usually suffered from delusions concerning the identity of those near her; she developed marked antagonism to her husband, and displayed eroticism and indecency. A glaring, wild look characterised this stage, the skin was pale and sallow, and often there was repeated yawning. With reference to heredity it was found that 122 out of the 259 cases referred to in this paper had hereditary predisposition. Numerous and frequent relapses in acute puerperal mania were more common than was generally believed. He considered that the essence of the treatment might be summed up in generous diet, administered by the stomach-tube if necessary.

Evolution of a Perception Centre.

Dr. F. W. Edridge-Green gave a short paper on "The Evolution of a Perception Centre," and explained that by a perception centre was meant the portion of brain having the function of conveying to the mind information concerning a sensation. In primitive man the sense of light was developed first and the sense of colour afterwards. The capacity for colour perception was very slowly developed, so that the early man might be said to have passed through the various stages of colour-blindness. Red and violet were the first to be perceived, then green, and as evolution proceeded a fourth colour, yellow, was recognised. He had never met any person who could see more than seven colours in the spectrum. The same theory of evolution applied to the other perceptive centres.

The Physical Basis of Melancholia.

Dr. John Turner, who contributed a paper on this subject, stated that in melancholia changes were met with in the pyramidal and giant nerve-cells of the brain which were apparently identical with those produced in the motor bulbo-spinal nuclei of animals by severance of the motor nerves. When such changes were marked dementia was present. Dr. Turner claimed that the changes in melancholia began in the afferent part of the nerve system, in the sensory roots and posterior spinal ganglia of the spinal nerves, so that the cells within the spinal cord, *e. g.*, in Clarke's column, were deprived of their natural sensory stimuli. The

same applied to the sensory pathway leading up to the cerebrum. In Dr. Turner's experience melancholia more frequently than any other class of mental disorders, with the exception of general paralysis, tended in comparatively short periods to pass into dementia.

The Modern Treatment of the Insane.

Dr. Seymour Tuke referred to the difficulties under which alienists in England laboured under the existing lunacy laws. The Lunacy Act of 1890 was, owing to its "too repressive" nature, evaded by many, and unregistered places for the accommodation of insane private patients thus continue to exist. There was a prevailing practice of diagnosing cases of insanity as neurasthenia, hysteria, and as "borderland" cases.

The Diagnosis and Treatment of Feeble-minded Children.

Dr. Francis Warner stated that of the school children between the ages of three and thirteen years in England it was estimated that about 1 per cent. were feeble-minded. The Elementary Education (Defective and Epileptic Children) Act of 1899 had directed attention in many quarters to the necessity of provision for the care and training of children of defective brain power. He then laid down rules for the guidance of those who had to make a diagnosis of cases of brain defect, and indicated the lines of treatment which should be carried out.

Colitis, or Asylum Dysentery.

Dr. T. Claye Shaw contributed a paper on this important subject, in which he contended that only a small proportion of cases of colitis were primarily of bacterial origin, and that ulceration of the mucous membrane of the intestine was commonly met with in the insane, and was a trophic degeneration dependent upon the low nervous vitality of the patient. Such ulcerations might be comparable to bed sores. The disease known as asylum dysentery seldom affected the medical or nursing staff of asylums. The continued occurrence of colitis did not necessarily imply that sanitation was bad in the buildings where it occurred, and cast no discredit on the medical or administrative staff.

Debated Points in Asylum Plans.

Dr. R. H. Steen's paper on this subject gave rise to a lively discussion. He criticised adversely the villa-colony system, stating that (1) it would prove very costly to work in this country; (2) the staff required would be enormous; (3) the patients would not be efficiently supervised at night; (4) the risks of suicide would be greatly increased; (5) escapes would be numerous; and (6) the initial cost would be not less than that of the pavilion asylum.

ASYLUM DIETARY.

(Abstract.)

By A. Turner, M.D., Plympton, Devon.

The question of diet is very important in relation to any community of individuals—particularly when sick in mind or body,—more particularly when sick in both. It is a vital question in an ordinary household, more so in a general hospital, and of more serious import still in a hospital for the insane, where *good food*, *good cooking*, and *good service* are specially necessary.

Food.—It is a common remark in asylums that the food is good enough, but spoilt in the cooking. And if to this we add in the service, I think we have found the weak points in asylum dietary. Food materials should be selected for their intrinsic value, and must be critically examined in every respect on delivery, regardless of the vendor or his connections.

Housekeepers.—Asylum housekeepers are as a rule very excellent individuals, but they are often selected for reasons unconnected with housekeeping. Few learn to fulfil their undertaking, even under generous opportunities of learning. There is difficulty in obtaining the services of good *cooks*, and there is often friction between the housekeeper and the cook until compatible inadequacy results. The food of the higher officials engages her attention, so that the patients suffer by the

delegation of her duties to kitchenmaids. Failure too often results owing to inattention to details. *Potatoes* are spoiled by mere carelessness, although they are a staple feature at dinner. *Cabbage* and similar vegetables require careful cleansing or they are disgusting. *Beef-tea* is by no means satisfactorily prepared, and then, perhaps, it is fortunate that it so often reaches the stomach through a tube. *Soup*, in English asylums, is not given as often as it should be. The English people seldom prepare this efficient and economical diet, which owes much of its unpopularity to careless preparation. *Gravy*, which renders meat less dry and gives relish to vegetables, is rarely seen. I need not refer at length to the humours of our asylum kitchens, and the little mistakes which will occur and are too often repeated

Service.—The dishing up in the kitchen, the carriage from there to the hall or ward, and the carving and final distribution may be spread over thirty minutes, during which the food has been more or less exposed to the cooling influence of the atmosphere. *Heated tables* in the kitchen are by no means universal, and are often inadequate. Suitable *dinner waggons*, *heated dishes*, *plates*, and *covers* are scarcely to be found. The result too often is that meals are served in an unappetising state to patients who at home have their meals served hot, direct from the cooking utensil to the plate.

Sick diet is generally more home-like, and no doubt for that reason is much in favour, not so much because of its intrinsic superiority, but of its special preparation. Still there is often a sad lack of attention in its distribution, for one frequently sees the extra diet placed beside the patient's ordinary meal, and that is not the way to coax a flagging appetite.

Remedies.—A more carefully selected and supervised kitchen staff, and a better system of service, are obviously required. I would have the staff understand that there is a way to a patient's heart through the alimentary canal.

Meals.—The breakfast and tea must remain as at present notwithstanding the waste involved. In dealing with the insane—even in small numbers—the only way of insuring that every patient gets enough at each meal is to put enough before him individually. Jam, marmalade, or syrup might more often take the place of butter, and for some of the patients the tea and coffee might be served with the option of milk and sugar. Porridge is little used and unpopular in England because it is badly made. Dripping, as often used by the poor, might supplement the necessarily scanty supply of butter. *For dinner*, beef, mutton, and pork must form the basis, but these should not always be boiled or roasted. Onion sauce, caper sauce, and savoury stuffing are too rarely in evidence. Rice should be used as a second vegetable or made into shapes served with jam or fruit. Rice suggests *curry*, which might sometimes be supplied. *Fish* is not a popular dinner because it is seldom well cooked and served with some approach to daintiness. *Puddings* are not generally given in variety, yet women especially often prefer them to meat. Jam, marmalade, apple puddings, and tarts are surely not beyond the possibilities of asylums. Even in summer-time too little fruit is used.

I believe that we have not progressed in dietary as in other departments of asylum administration. A fair ideal has not been generally recognised or faithfully acted upon. Were this done we should add to our remedial, possibly to our curative agencies. Think how a spoilt dish disturbs an epileptic ward or disappoints a convalescent when he finds that removable sources of worry are permitted to exist. I plead that the sick should be fed as well as nursed.

In asylums generally the diet scale is the same for all patients, whether they be able-bodied or infirm, young or old, active or sedentary. I suggest that they might be classified with advantage to the individual and to the general economy of the institution.

Discussion

At the Spring Meeting of the South-western Division, April 23rd, 1901.

Dr. MacDonald said—With much that Dr. Turner put forward I am in hearty agreement. I think it will be admitted that the larger the asylum the more likely are those evils to which Dr. Turner referred. You have to a large extent to fix your diet and to base it on the district in which you live. It is a mistake to fix the same dietary for the south as for the north. You have a different class of people to deal with, and what pleases one does not please the other. We all know what

a very wholesome article of diet fish is, but I find the people with me won't take it, and in consequence it is only given occasionally. I agree with Dr. Turner that it would be a good thing if it were possible to vary the dietary more. I find there is one little article of diet which pleases the people immensely. That is when eggs are cheap and plentiful, to give eggs and bacon for dinner instead of beef or mutton. You cannot cook enough to go all round the asylum at one time, but spread it over the wards. I feel rather pleased that I am not hampered in any way as regards a fixed diet for the staff. This enables one to vary their diet, which is such an important question as regards contentment and loyalty.

Dr. MILLAR said—The question of variety in meat has been touched upon. Of course, in killing your own animals there is a great deal which appeals much more to the patients than mutton and beef,—for instance, liver, heart, and kidneys; and I find that patients prefer a dinner of bacon and liver, even cow's liver, to a sirloin of beef. I can bear out what Dr. MacDonald said about the bacon and eggs. I tried to think out some plan by which I could give the patients more fat, and I find that the simplest way of doing it is by the introduction of pudding with suet in it. Fish is a most unsatisfactory article of diet in an asylum. A patient not very long ago told me it was only fit for manure. As regards the point touched upon by Dr. MacDonald, who said the position of the asylum had a great deal to do with the diet you give to your patients, I am confident that Warwickshire would not look at porridge. So far as the staff go, there are one or two points I have found successful. During the summer, when "green meat" (radishes, lettuce, and that sort of thing) is abundant nurses especially appreciate these things very much, two or three times a week. It is not the amount of food which you give the staff, but the way you send it to them. They would sooner have a small piece of meat well cooked than a large piece insufficiently cooked.

Dr. PIETERSEN.—My experience has been that of sixteen years in private asylums, and, of course, the conditions are very different. In the institution in which I have been for the last ten years I have only under my care thirty patients, but to give some idea of the trouble you would have if you were to separate your patients out, the active, suspicious, melancholic, acutely maniacal, and so forth, I may say that for the thirty patients I have to order sixteen dinners a day. To do this in an asylum of 1500 patients you would require at least seven or eight medical superintendents. Dr. Turner's suggestions are such as I have long attempted to practise.

Dr. BENHAM.—I suppose our remarks are largely based upon our own experience. One of my difficulties in facing the diet problem was to get the food hot to the patients. We have hot-water plates in the dining hall, and I am in favour of patients dining in a central hall in the neighbourhood of the kitchen. The meat is brought in and carved at the head of each table and served there. Of course it takes a minute or two to do this, but on the whole we get the food fairly warm to the patients. I was interested to hear about the eggs, but I cannot say that I am always able to get sufficient fresh eggs for myself. Our nurses and attendants dine out of the wards. We vary their dietary frequently. We have no stated diet for them, and I am able to spend any reasonable sum for that purpose. The male attendants sent a deputation to me and said they would not eat fish. I told them that, personally, I liked fish very much, and I provided it for them, but if they said they would not eat it they could go on with the beef and mutton. I must agree that a fish dinner is not popular.

Dr. TURNER.—I am very much obliged for the kind way in which you have received the imperfect paper in which I have dealt with this subject. The question of cost has been touched upon, but I do not see that there should be a remarkable expenditure. All that is required to improve asylum dietary on the lines I have mentioned—I mean a better staff, more variety in their dishes, and better appliances for serving things hot—would not involve an enormous expenditure. I am afraid it is such a long time since I was in Dorset that I have forgotten many of the good things I learnt there, but I know of no asylum where the staff are better fed. Of course, a universal diet is out of the question. You cannot give eggs and bacon all round, but you could take the wards in turn from time to time, although that would mean more work for the staff. I did not deal with the staff because, naturally, if the patients' diet were improved theirs would be. In many of the large asylums the way the meals are served out to the staff is a crying shame, and

it is nothing uncommon to see a joint of meat flung across the mess-room. I was very pleased to hear Dr. Benham's remarks about the hot-water plates. He suggested margarine, and I would suggest that he should label it: no one took up my suggestion of dripping. I used to find that it was in great demand by the staff. I would suggest that patients might be allowed to add milk and sugar to suit their own tastes when tea or coffee is served Of course, it would be impossible to deal with large numbers, but in dealing with saner patients in the convalescent wards it might be feasible, especially if they sat at small tables.

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. *Scott.*

William Scott, 38, farm labourer, was put on trial for the murder of his wife, whom he shot with a revolver,—facts were undisputed. For the defence it was proved that the prisoner had been subject to depression, which had got worse the last few years; that three instances of insanity had occurred among his relatives, and that a few days before the crime he had lain down in a furrow in a ploughed field for two hours. It was proved also that he was addicted to drink. Acquitted on the ground of insanity.—High Court of Justiciary, Aberdeen, June 24th, Lord Kincairney.—*Scotsman*, June 25th.

The evidence of insanity seems to have been very slender, and the case is an instance of readiness of judges and juries to accept the plea of insanity even where the evidence is not very strong.

Rex v. *Wickham.*

Walter Wickham, clerk, 30, was indicted for the murder of Jennie Russell. The prisoner and the deceased had been drinking on the night before, and had been heard quarrelling. Shortly after midnight the prisoner cut her throat in the street, from which she died on the spot. When the prisoner was arrested and charged there seems to have been something peculiar about him, for the inspector asked him if he understood the charge. The prisoner answered, "Yes, yes. You can charge me with being drunk and disorderly or anything else." The plea of insanity was set up in defence, but the jury found him guilty. When the judge was sentencing him to death the prisoner tried to get away, shouting, "I won't hear any more." When the sentence of death was completed he shouted, "A good job."—C.C.C., Mr. Justice Wills.—*Manchester Guardian*, July 24th.

There seems to have been *primâ facie* evidence of insanity in this case, and no doubt the prisoner was medically examined subsequent to sentence. There was, however, no evidence of insanity adduced at the trial.

Rex v. *Johnson.*

Mary Elizabeth Johnson, a married woman, 29, was indicted for the murder of her 14 months old child. Prisoner had been summoned for stealing and pawning a coat. The charge was not pressed, and she was bound over in her own recognisances and left the court in company with the neighbour who had preferred the charge. She seemed very much distressed, and on her way home she said she must poison herself and the baby, and the next morning she actually did so. To the neighbour who came in and found the baby dead and the prisoner in great pain she said, "Jennie is dead, I gave her some rat poison in warm milk; I won't live myself, I have taken too much poison. No one knew my mind, I was ashamed to go out. I have bought a night-dress for Jennie and a chemise for myself. The night-dress is to be put on Jennie." When committed for trial she said, "she did not know what she had given the child, and everything seemed like a dream. She suddenly found the child dead in her arms and laid it on the bed." The defence was insanity. Dr. Price, Medical Officer of Walton Prison, said that the prisoner had been suffering from acute melancholia, was suicidal, but had homicidal

tendencies. Guilty, but insane.—Liverpool Spring Assizes, Mr. Justice Wills, May 6th.—*Manchester Guardian*, May 7th.

Another case indicating the humanity of latter-day judges and juries. It was proved indisputably that the prisoner premeditated the crime, and that she knew the nature and quality of her act, and that it was wrong, yet the plea of insanity was established without the slightest difficulty, and with the full approval of the judge.

Rex v. *Butler.*

Thomas Butler, who murdered his five children, was placed at the bar and found unfit to plead. He protested that he was perfectly fit to understand the whole proceedings, and protested against the evidence to the contrary.

Rex v. *Bentley.*

Edgar Bentley, 26, designer, was indicted for the murder of W. E. Kilner. Prisoner and deceased were on very friendly terms, and were walking in the street when the prisoner suddenly turned upon the deceased and shot him with a revolver. When arrested he said, "I want to go to Wadsley" (the local lunatic asylum). On being charged he said, "Yes, yes. The answer that I have to make is that I am off my head, I am insane." It was proved that about eight years ago the prisoner suffered from an attack of melancholia, and that similar symptoms of insanity had shown themselves last autumn. He became so much depressed that he had to give up his work and go to Ireland for his health. Medical evidence was given that the prisoner on the day of the murder was not responsible for his acts. Guilty, but insane.—Leeds Assizes, May 12th.

The prisoner's recognition of his own state immediately after the murder was unusual, and such statements must be looked upon with great suspicion, but there seems no doubt about the genuineness of the case.

Rex v. *French.*

Edward Thomas French, medical practitioner, was indicted for the murder of his wife. It appears that the prisoner was addicted to drinking, and also to the use of chloral. On the day in question he went to bed in the afternoon, and was seen by a servant in bed, apparently asleep, about 6. At 7 o'clock the servants were aroused by screams, and, running to the room from which they proceeded, found Dr. French attacking his wife with a hammer in one hand and a surgical knife in the other. She was stabbed through the liver and heart, and died in a few minutes. The plea of insanity was raised, and five medical men gave evidence that the prisoner had suffered for many years from chronic inflammation of the scalp, which affected his brain. The judge charged the jury very fairly, and stated what is undoubtedly the law, that if a man is drunk, even to the extent of not knowing anyone, he is just as guilty in the eye of the law as if he commits a crime as a perfectly sober man. Guilty of manslaughter, and sentenced to penal servitude for life.—Westmeath Assizes, July 1st, Mr. Justice Holmes.—*Irish Times*, July 2nd.

The verdict was distinctly Hibernian. If the prisoner was not insane he was guilty of a very heinous murder, but the jury steered a middle course, and it seems that substantial justice was done.

Rex v. *Cox.*

Hannah Johnson Cox, 28, was indicted for the murder of her two children, aged two and a half years and five months respectively. The prisoner had been deserted by her husband, and had to rely upon her neighbours for food for herself and her seven children. The husband owed £17 for rent, and a judgment order had been obtained, and in consequence the prisoner had been turned out of her house. She applied for an order for the workhouse, but the relieving officer refused to give her an order unless her husband went into the house with her. This seemed to make the prisoner very depressed, and on the morning of June 14th she was seen by the canal side nursing her two youngest children. Shortly afterwards their bodies were found tied together in the water, and the prisoner went to the police station, where she made the following statement:—"I have just put my two children into the canal. I pushed them through the rails, but I never heard them cry after I put them in. I shall be hung now, and that

will end it all." When charged she said that she loved the children better than she loved her life. Medical evidence was given, in which it is evident that the doctors tried to find signs of insanity, but were not successful. Dr. Spence, Superintendent of Burntwood, said that by the direction of the Treasury he had examined the prisoner, and could not say there was anything the matter with her mind. It was probable that she yielded to a sudden impulse, which led her to form the idea that she would be doing the best she could for her children if she drowned them. The judge said it was clear to his mind that the prisoner, through misery, had lost her reason at the time she did the deed, and he thought the jury would be of the same opinion. Guilty, but insane.—Stafford Assizes, July 24th, Mr. Justice Bingham.—*Manchester Guardian*, July 25th.

This is an excellent instance of the modern practice in criminal cases. It was quite impossible to bring the case under the strict letter of the law. It could not possibly be said that the prisoner did not know the nature and quality of her act, or that it was wrong. The doctors, with every desire to find evidence of insanity on the part of the prisoner, were unable to do so, but, under the circumstances of the case, the judge took upon himself to disregard the legal formula altogether, and almost directed an acquittal. In this way whatever defect there may be in the statement of the law is counteracted, and substantial justice is done. This being the effect, it would be pedantic to object to the law under which such results are obtained, or to demand the substitution of some other formula, which would probably be found equally defective, and certainly would not be more effectual. The late Mr. Justice Stephen called attention to a quality of law, which he said some people call elasticity and considered a good thing, and others called vagueness and considered a bad thing. Upon the whole, we are constrained to adhere to the first view.

Rex v. *Rumley.*

William Augustus Rumley, 36, porter, was indicted for the murder of Charles R. Buckland. Prisoner and deceased were in the same employment, and had always been upon good terms. They were walking together along the street, when prisoner suddenly stopped, drew a knife from his pocket, and stabbed deceased in the neck, so that he died in a few minutes. Prisoner walked away and was stopped by a police constable. Prisoner made a lunge at the officer's stomach with his knife. When charged prisoner said he had had a lot of trouble, his children having died. He became very violent, and made a determined effort to get away, saying that he wanted to go to his work. At the time of the trial he was quite sane. The judge said there could not be a shadow of doubt that the prisoner was not in a responsible state of mind when he committed the act. It was proved that prisoner had suffered from fits, and when thirteen years of age he had tried to cut his throat. He had four children, all of whom had died, the last having been accidentally drowned. Since their death he had been very melancholy, and had made attempts to commit suicide. Dr. Bastian had examined the prisoner at the request of the Treasury. He was of the opinion that the prisoner committed the deed while in an automatic state, following on a modified epileptic attack. Guilty, but insane.—Central Criminal Court, July 25th, Mr. Justice Wills.—*Times*, July 26th.

The theory of epileptic automatism used to be laughed out of the courts. It marks a very satisfactory change that it could be so easily and completely established in this case.

Rex v. *Moody.*

Cyril Moody was indicted for shooting at James Samuel Cox and wounding him with intent to murder. The attendant had been a visitor at the house of the plaintiff, but had left. He went to the house at night, having had a good deal of drink, and let himself in with a latch-key. He then knocked at the door of the prosecutor's bedroom, with a revolver in his hand, and when the prosecutor opened the door an altercation took place, the revolver was fired, and the bullet struck the prosecutor in the region of the heart. The defendant was stopped by a police constable, to whom he said, "All right, I did not mean to do it. It was done in a moment; he should have kept away; let me see him." The defence was that the defendant was in a state of drunkenness and nervous prostration,

which deprived him of the capacity of forming any intent at all; he did not fire at the prosecutor, he took no aim; that his mind was an absolute blank at the time in consequence of the drink that he had had. The jury found him not guilty of shooting or wounding or intent to murder or do bodily harm, but guilty of unlawfully wounding. Six months' imprisonment in the second division.—C.C.C., July 18th, Mr. Justice Wills.—*Times*, July 19th.

This case contrasts with that of Dr. French's reported above. Intent was the essence of the crime with which he was charged, and in consequence of the drink that he had taken he was not capable of forming any intent; so that although drunkenness is no excuse for crime, yet in fact, in this case, the drunkenness of the defendant did have the effect of exonerating him from the crime with which he was charged, and it seems most probable that the same consideration weighed with the judge and induced him to inflict a very lenient sentence.

In re *Lawrence White.*

This was an appeal from a refusal by Mr. Justice Lawrence to issue an order to bring up the body of Lawrence White. The application was made on behalf of Mrs. White, whose husband was 83 years of age, she being about 55. Mr. White was now suffering from senile decay. A short time ago Mr. and Mrs. White came to the neighbourhood of Egham to stay with Mr. Spiller, the respondent. During the time they were there Mrs. White was removed to the infirmary on the ground that she was of unsound mind. She was discharged after a fortnight, and went to fetch her husband. Mr. Spiller declined to allow this, or give the wife access to the old gentleman. Mr. White was possessed of little or no will of his own, and an order of Court was issued that Mr. Spiller should bring up the old gentleman that they might see him. It was impossible to say that he was detained against his will, because he had no will of his own; but counsel argued that there was *primâ facie* presumption that he was being detained against his will. Mr. Justice Lawrence held that there was no such presumption, because Mr. White had been seen walking out with some one. Mr. Justice Bigham said that so far he did not see that the respondent was preventing Mr. White going where he pleased, and asked whether it was sufficient to say he had no will of his own. Mr. Marshall Hall said "he thought it was. Mr. White had no power of expressing his will." Mr. Justice Bigham: "Would you say he is in a condition to make a will?" Mr. Marshall Hall: "Certainly not." Mr. Justice Darling: "Has Mr. White made an affidavit himself?" Mr. Colam said he had not, and the cases show that he ought to do so, or prove he had been prevented from doing so. He had advised his client (Mr. Spiller) that Mr. White was not in a condition to make a will, so that the suggestion that they were keeping him for some improper purpose fell to the ground. Mr. Spiller had taken an absolutely passive attitude in the matter, and if Mr. White had wanted to go he could have done so. Mr. Justice Bigham said they could not order Mr. White to live with his wife; all that they could do was to make an order for Mr. Spiller to produce him.

On a subsequent occasion, it having been arranged that Mr. White should be brought up to London, a telegram was received from Mr. Spiller with a medical certificate that Mr. White was unfit to travel, and never would be fit to travel. In these circumstances Mr. Marshall Hall said that the Court had inherent jurisdiction to order him to produce Mr. White, and he asked that if necessary an officer of the court should be sent to assist Mrs. White in obtaining access to her husband. Mr. Justice Bigham: "What officer do you suggest?" Mr. Marshall Hall said he thought the tipstaff would be a proper person.

Here Mr. Spiller appeared, and was cross-examined. Eventually Mr. Justice Bigham, in giving judgment, said that he was not satisfied that this gentleman was detained against his will, and he was quite satisfied that he was incapable of forming a will of his own; they could do nothing under this procedure. They thought, therefore, that Mr. Justice Lawrence was right, and that the appeal must be dismissed with costs.—High Court of Justice, King's Bench Division, July 22nd. —*Times*, July 23rd.

The case is a very interesting one, but requires no comment.

Johnson v. *Johnson* (*by her guardian*).

This was a petition for divorce on the ground of adultery, the respondent being of unsound mind. She was represented by a guardian, appointed by Justice Gorell Barnes, for the purposes of the suit.

The PRESIDENT in delivering judgment said that proceedings for divorce might be instituted against a lunatic, and the Court had no hesitation in finding that this person had committed adultery. She had been pronounced incurable for many years, and the petitioner had preferred to wait for relief until his wife's death, which had been expected. Notwithstanding the long delay in instituting proceedings the President pronounced decree *nisi*.—*Times*, April 20th.

Prosecution by the Lunacy Commissioners.

At the Warwick Quarter Sessions, last April, Mrs. A. W. Buchanan, of Rugby, pleaded guilty to unlawfully applying mechanical means of bodily restraint to her insane daughter. The prosecution was undertaken by the Lunacy Commissioners. There were further charges against the defendant of ill-treating her daughter, but these were not proceeded with after the admission of the first offence. The counsel for the prosecution said he quite believed the defendant's statement, that she did not really intend to do her daugher any harm or ill-treat her in any way. Nevertheless she had infringed the Act of Parliament, and the Lunacy Commissioners felt that the time had come when those who undertook the responsibility of detaining persons of unsound mind must familiarise themselves with the regulations. The Chairman, Mr. Dugdale, K.C., in giving the judgment of the court, said he could not quite agree that the defendant had only erred in a technical way. He thought there was a good deal of something approaching very nearly to cruel treatment of the unfortunate daughter. The magistrates, however, were favourably impressed by the fact that the mother did not appear to have lost the daughter's affection, and under the circumstances they did not think it necessary to inflict a sentence of imprisonment. A fine of £20 was imposed.

Sequel to a Lunacy Inquiry.

A Douglas boarding-house keeper was lately discharged from the Isle of Man Asylum, upon the finding of a Jury of Inquiry who declared that she was of sound mind. She sought refuge with a Mr. Fielding, at whose instance the inquiry was instituted. In the course of the day Mr. Fielding became alarmed as to her condition, and communicated with the police. She was examined by the police surgeon, and, on his certificate, was again placed in the asylum.

PARLIAMENTARY NEWS.

HOUSE OF LORDS, *May 9th*.—LUNACY (IRELAND) BILL.

On the order for the second reading,

Lord ASHBOURNE said this bill proposes to introduce a certain number of amendments into the Lunacy Laws of Ireland, the great proportion of which are already in operation in England. The first of the clauses proposes to give to the Lord Lieutenant the power to conditionally release a criminal lunatic. In Ireland we have felt the want of that power, because the criminal lunatic, during his detention at the pleasure of the Lord Lieutenant, can only be released absolutely without conditions, and that sometimes leads to difficulties, as the risk must be run, which is obvious, of absolute discharge. There are further certain amendments to provisions relating to criminals and dangerous lunatics which must be treated as privileged, subject to the consent of the House of Commons. A further important provision in the bill is the extension in Ireland of the jurisdiction over lunatics, an extension which has for years been in full operation in England. At present the whole jurisdiction is vested in the Lord Chancellor, and the amount of work involved is heavy. By the Act passed for England some years ago, the powers of the Lord Chancellor are shared in respect of criminal lunatics by the judges of the Supreme Court, such as the Master of the Rolls and the Lord Chief Justice. That works with obvious advantage, for the Lord Chancellor has sufficient help to discharge the onerous duty of this part of his jurisdiction, and the bill proposes to enable the Sovereign in Ireland as in England to give power also to

judges of the Supreme Court, such as the Master of the Rolls and the Lord Chief Justice, to perform the duties entrusted to the Lord Chancellor in conjunction with him, so far as these lunatics are concerned. These, I think, are the only clauses which alter the existing law.

The bill was read a second time without division or debate.

HOUSE OF COMMONS, *May 11th*.—STATE INEBRIATE REFORMATORIES.

The Home Secretary informed Mr. Cremer that he had already given his approval to plans for State inebriate reformatories for both men and women, and that the work would be proceeded with as quickly as possible. He hoped that temporary arrangements for the reception of women would be completed in three months.

HOUSE OF LORDS, *May 17th*.—THE HABITUAL DRUNKARDS BILL.

Introduced by the Bishop of Winchester, and carried through a second reading some two months ago, the bill has now been transformed into a new measure by the amendments of the Government in committee. Only about four and a half lines of the original bill were left after the committee stage. Both Lord Cross and Lord Spencer pointed out the unusual and inconvenient course which had been taken, and Lord Salisbury defended the wholesale amendment of the bill as a convenient plan for dealing with the subject. The first clause had five words left, and this was made to read in conformity with the Inebriates Act of 1898, so as to make no new definition of "habitual drunkard." The effect of the amended clause left it to the discretion of the police to serve notices of prohibition of the sale of intoxicants on the licence holders, and limited it to on-licence holders. The bill originally contemplated a penalty for the publican who served the liquor, while as amended it provides for a penalty for the habitual drunkard also. In the second clause the protection for the wife of the habitual drunkard was extended, so as to include protection for a husband against a wife who was an habitual drunkard. The third clause, which provided for a penalty for being drunk while in charge of a child under six, was amended so as to raise the age to seven years, and made the penalty forty shillings or a month's imprisonment with or without hard labour. Clause 4 was altered so as to provide for the registration of offences under the Act by the clerk of the licensing justices in a special register, and a new clause was added to provide for the apprehension of a person found drunk in a public place, and requiring a person convicted of drunkenness to give security for good behaviour, in addition to or substitution for any other penalty. At the end of the committee stage, before the bill was reported, Lord Salisbury agreed to make the bill a Government measure in the Commons after it had passed the Upper Chamber.

HOUSE OF COMMONS, *May 24th*.—THE INEBRIATES ACTS AMENDMENT BILL.

Dr. Farquharson introduced this bill, which has been promoted by the British Medical Association, and backed among others by Sir F. S. Powell, Sir Walter Foster, Sir Michael Foster, and Dr. Thompson.

INEBRIATES AND LUNATICS.—*July 22nd*.

The withdrawal was announced of the Drunkards Bill and the Lunacy (Ireland) Bill.

THE SALE OF INTOXICATING LIQUORS TO CHILDREN.—*August 3rd*.

The bill to prevent the sale of intoxicating liquors to children is now altered very much in form. The limit of age stands at fourteen years instead of sixteen. Liquors sold or delivered in corked and sealed vessels in quantities not less than one reputed pint, for consumption off the premises, are excluded from the scope of the bill altogether, and the sender of the child is made equally punishable with the licence holder who sells or delivers the liquor to the child. The term "corked" is defined to mean closed with a plug or stopper, whether it is made of cork or wood or glass, or some other material, and "sealed" is defined as secured with any substance without the destruction of which the cork, plug, or stopper cannot be withdrawn.

GRANT FOR IRISH ASYLUM.

The Chief Secretary, in a long letter to Mr. Redmond, M.P., under date 10th May last, explained that the changes involved by the Local Government Act have not injuriously affected the finances of the Irish asylums. He pointed out that the 4*s*. grant is an aid to the expenses of the year in which it is paid, and not a repayment of the expenditure of the previous year; and that the alteration implied by the closing of accounts on the 31st March, instead of the 31st December, has really resulted in a slight benefit to the institutions.

ASYLUM NEWS.

Claybury Asylum.—It is reported that the Committee of the Claybury Asylum have decided to discontinue the employment of women as Assistant Medical Officers in that institution, on the ground that they are unequal to the heavy duties demanded of them; but they recommend to the County Council that Dr. Emily Dove should be paid £270 as compensation for the abolition of her office.

Mullingar Asylum.—An epileptic patient died recently in Mullingar Asylum after eating a small quantity of yew leaves, which he had plucked in the grounds of the institution. The evidence at the inquest showed that death had resulted from failure of the heart's action after an epileptic seizure, death having been accelerated by eating the yew leaves. The jury recommended that all poisonous trees in the grounds of the Mullingar Asylum should be fenced. A circular of the Scottish Board of Lunacy issued in 1871 contained a similar warning. It is doubtful, however, if the gardens and grounds of asylums are generally secure against all poisonous trees, plants, and fungi.

Exeter Workhouse.—Dr. Woodman reports, in the *British Medical Journal* of 29th June, a case of attempted suicide by drinking Jeyes' fluid. A man, aged 31, drank a pint and a quarter of the undiluted fluid, and was shortly found unconscious, collapsed, and almost pulseless. The breathing was stertorous and the pupils contracted. After a hypodermic injection of brandy, the stomach-tube was passed and the stomach washed out. Two days afterwards he had slight pain in the throat and stomach, and he entirely recovered within a week. Dr. Woodman remarks on the slight effects upon the œsophagus and stomach, and it is of importance to asylum physicians to know that the comparative safety of this powerful disinfectant, claimed by the proprietors of Jeyes' fluid, has been proved in this experimental manner. A similar amount of crude carbolic acid must have been necessarily fatal. In 1891 in England and Wales ninety-five persons died from the latter poison.

Lancashire Asylums.—The *Manchester Guardian* of 18th March referred to the deficient asylum accommodation in the Lancashire asylums. At Preston a man had been charged with wandering at large when in an unsound state of mind, and the Magistrates' Clerk said that was the third case within a month. Mr. Blackhurst, who appeared for the police, said the workhouse authorities refused to take him, alleging lack of accommodation and attendants. Replies that there were no vacancies had been received from Whittingham, Prestwich, and Lancaster Asylums. The magistrates' clerk had written to the Home Secretary, who had replied "that in such a case he thought that rather than allow him to go at large it was not only justifiable, but was the duty of the police to detain him till provision had been made for his proper custody. In doing so care must be taken to treat the lunatic, as far as their means allowed, in the manner proper to his condition. It was probable, however, that at the workhouse better means existed for a lunatic's detention than at a police station, and therefore if some time must elapse before he could be received in an asylum, further pressure should be brought to bear on the workhouse authorities to take charge of him."

The Bench made an order for the man to be detained as long as necessary, pending his removal to an asylum.

Again on the 13th August the same newspaper records that: "at a meeting of the Guardians of the Stockport Union the chairman stated that, while they could get places in Cheshire asylums for cases occurring in the Cheshire part of the Union, there were cases in the workhouse from the Lancashire side for

which they had been unable to obtain places in the Lancashire asylums, these institutions being reported full. They might get them into Leicestershire asylums on paying £1 a week, as compared with their local rate of 8*s.* 11*d.* He supposed the only course would be to pay the higher charge and make a claim upon the Lancashire Council for the difference, seeing that that authority had neglected to provide adequate accommodation."

While the Stockport Guardians have thus been pressing for increased accommodation, it would appear that difficulties have been placed in the way by certain members of the Chorlton Board. After Dr. Rhodes' able advocacy of a scheme to provide separate accommodation for imbeciles and epileptics, and thus relieve the existing establishments, the Chorlton Guardians instructed their clerk to take measures to carry out the proposal by a majority of ten to seven. Yet the *Manchester City News* supports the minority in throwing cold water on these efforts made to relieve the pressure on the asylums, and to adequately care for the cases so imperfectly dealt with in crowded workhouse wards.

Cardiff Borough Asylum.—The *British Architect* of 29th March contains elaborate plans, prepared for the new asylum for Cardiff, by Messrs. Wills and Anderson, who received a honorarium of £100, the premium of £500 having been awarded to Messrs. Oatley and Skinner. The editorial comment is that Messrs. Wills and Anderson's design constitutes almost the last word on asylum planning. These plans will be shown at the General Meeting in November.

Downpatrick Asylum.—At a meeting of the County Council held at Downpatrick, on 13th July, a report was submitted as to the accommodation of insane patients. The result was that it has been decided to erect a suitable building in proximity to the existing asylum. The *Down Recorder* expresses its opinion as follows:

"On grounds of expediency and economy alike, the plan of appropriating for the purposes of an auxiliary asylum one of the workhouses of Down, by union amalgamation, has been abandoned by the County Council, the alternative that has found favour being the erection of a new department at the existing asylum. This is in consonance with a resolution passed at the Annual Meeting in Cork of the Medico-Psychological Association of Great Britain and Ireland, which views with apprehension any scheme permitting or favouring the aggregation of insane patients requiring institutional treatment except under skilled resident medical supervision. It now remains to be seen whether any obstacle will be raised to the application of the full capitation grant in the case of the chronic lunatics to be transferred from the workhouses. Presently, with that afflicted class off their hands, we shall have the Poor Law Guardians inquiring if the increase in their nursing staffs is to proceed on the current ratio."

In the same newspaper we observe that the attendant of the idiot ward in the Downpatrick Workhouse, a man of the age of 65, who some time before had entered that institution, made a suicidal attempt upon his life. We should be loath to circumscribe the usefulness of a man of that age, but the circumstances give indication of the real condition of Irish workhouses, which met with such unsparing condemnation in the *British Medical Journal* a few years ago.

AN EXPERIMENTAL PSYCHOLOGICAL DEPARTMENT AT CLAYBURY.

The *British Medical Journal* of May 18th says: "We learn with pleasure that a department of experimental psychology has been established in connection with the Pathological Laboratory of the London County Council Asylums at Claybury. Dr. W. G. Smith, M.A.Edin., Ph.D., Leipzig, who has worked for upwards of two years in Germany in the Psychological Laboratories of Professor Flechsig, has been placed in charge of the new department. We understand that the problems which he proposes to study in the laboratory are—(1) the pathological changes in mental states, such as memory and association of ideas, particularly in individuals suffering from alcoholic dementia; (2) the phenomenon of reaction time in normal and abnormal individuals, as studied both by the measurement of the duration of mental processes and by analysis of the motor phenomena by the

graphic method. It is hoped that in time a series of systematic and accurate scientific records of the mental state of a number of individuals at successive periods of time will be collected, and valuable scientific results may also be hoped for by the association of these records with the morbid changes found in the brain of such cases as subsequently prove fatal. Some apparatus to equip this department was purchased when the laboratory was founded, and, out of a grant of £50 made by the Committee, further purchases have been made."

THE PATHOLOGY OF GENIUS.

In the July number of the *Popular Science Monthly* Mr. Havelock Ellis has an article upon the pathology of genius. Out of 322 cases where he has been able to ascertain accurately, or nearly accurately, the cause of death, lesions of the brain occurred thirty-five times, pulmonary tuberculosis thirty times, and asthma nine times. Gout is mentioned thirty-eight times, and the gouty geniuses were very remarkable, including Milton, Harvey, Sydenham, Newton, Johnson, Savage Landor, W. R. Hamilton, and Darwin. Mr. Havelock Ellis suggests that the gouty man views the world with, as it were, two different brains. When uric acid is circulating in his blood he is gloomy and introspective. When the acid is deposited in his joints his brain becomes abnormally clear. He thus exhibits well-marked mental periodicity. Gout, however, must not be considered the cause of genius, but given a highly endowed organism the gouty poison acts as a stimulus. As for insanity, of 902 eminent persons some 5 per cent. were insane. Epilepsy is mentioned as having occurred in only two cases—Lord Herbert of Cherbury and Sir W. R. Hamilton. Other nervous or neurotic conditions are, however, fairly common. Many men of genius stuttered, many were singularly awkward in performing actions requiring muscular co-ordination, and many were "neurasthenic." In fact, Mr. Havelock Ellis's researches go to show that genius exists in persons highly charged with nervous energy, but that the energy is ill-balanced and not equably distributed throughout the organism.

THE CERTIFYING OF THE INSANE.

Consequent upon recent scandals the following circular has been issued from the Home Office to clerks to county and borough justices, stipendiary magistrates, and the metropolitan police magistrates, under date May 31st, 1901:

"I am directed by the Secretary of State to acquaint you that he has had before him cases which have occurred in certain Poor Law unions in which the relieving officers have received payments from the district medical officers and proprietors of licensed houses in connection with the certifying of lunatics and their admission into these houses. Mr. Ritchie feels sure that he may count upon your active assistance to discover and put an end to these reprehensible practices, and with a view to preventing their repetition in the future he thinks it desirable to call the attention of magistrates to several points connected with the certifying of lunatics.

"(1) Section 16 of the Lunacy Act, 1890, which prescribes the steps to be taken when a pauper alleged to be a lunatic, or an alleged lunatic wandering at large, is brought before a justice, directs, amongst other things, that the justice shall call in a medical practitioner, and it is only when this practitioner has signed a medical certificate with regard to the lunatic that an order for his removal to an institution for lunatics can be made. In some cases the relieving officer has, it is found, often selected or influenced the selection of the medical practitioner who should examine the alleged lunatic; but it appears to the Secretary of State that the section requires that on each occasion the justice should himself call in such medical practitioner as he may think fit, and that the relieving officer should in no way be concerned in the selection.

"(2) A justice should not sign the reception order until the medical practitioner has signed the medical certificate. It appears that justices sometimes do not wait until the certificate has been signed by the medical practitioner and the statement of particulars filled in and signed by the relieving officer.

"(3) Sometimes the name of the asylum to which the lunatic is to be conveyed is left blank in the reception order. The Law Officers of the Crown have advised that, unless the name of the asylum to which the lunatic is to be removed is stated in the reception order when it is made, the order cannot legally be acted on; and Mr. Ritchie thinks it very important that the requirement of the Lunacy Act in this matter should be complied with.

"(4) I am to call your attention to Section 27 (2) of the Lunacy Act, and to say that it is important that justices should very carefully ascertain that there is a deficiency of room or that there are some special circumstances before they authorise a lunatic to be sent to some institution other than the county asylum. The cost in any such institution is, of course, much greater than in the county asylums, and in some instances the institution is situate at a considerable distance from the place from which the lunatic is sent, and he may thus be entirely cut off from his friends."

LADY INSPECTORS OF ASYLUMS.

A letter to the Editor of the *Irish Times* states that it is in contemplation to appoint a lady inspector of Irish asylums, and suggests that four will be required at a remuneration of £200 to £300 a year each, with travelling expenses. We anxiously await the opinion of the gentleman inspectors as to this proposal.

STATE INEBRIATE REFORMATORIES.

The Home Secretary, in pursuance of his powers under the Inebriates Act, 1898, has issued regulations for the management and discipline of State inebriate reformatories, the general superintendence of which shall, he directs, be vested in the Prison Commissioners, subject to the control of the Secretary of State, to be assisted in the performance of this duty by an inspector having special knowledge of the treatment of inebriety. The regulations provide for the appointment by the Secretary of State of visitors, who shall meet as a committee at the reformatory not less than eight times in the year to hear the complaints of inmates and to perform other functions connected with the control and inspection of the reformatories. After dealing with the admission, transfer, and discharge of inmates, the regulations provide that no spirituous liquors of any kind shall be admitted to the reformatory for the use of any inmate under any pretence whatever, except in pursuance of a written order of the medical officer. There are to be three classes of inmates—penal, ordinary, and special,—the penal class to be reserved as a punishment class to which inmates may be degraded for serious offences committed in the reformatory. Detailed regulations follow as to employment, health and recreation, instruction, and dietary.

It is also reported that pending the erection of permanent buildings, temporary accommodation for women at least will soon be available.

REPORT OF THE DALRYMPLE HOME.

The report of the Dalrymple Home at Rickmansworth, by Dr. F. S. D. Hogg, the medical superintendent, relates to 606 cases that have been discharged since the home was opened. Of these 282 were under the Inebriates Act, and 324 were private. While of those under the Act 35 per cent. entered for twelve months (by no means too long a period), and 30 per cent. for three months, of the private patients only 15 per cent. entered for twelve months, and 50 per cent. entered for only three months. In 40 per cent. of the 600 odd cases there was no family history obtainable of either inebriety or insanity; in 7·5 per cent. there was an hereditary history of insanity, and in 52·5 one of inebriety, most often in the parents, but almost as often in uncles and aunts. In 22 of the 606 cases there was an associated opium habit, and in six of these there was a cocaine habit in addition. In six there was an associated addiction to chloral, in two to sulphonal, and in two to cocaine without opium. In 70 per cent. of the total cases the drinking habits were described as "regular," and in nearly 30 per cent. as "periodical." The

average time during which the patients had been addicted to alcoholic excess was a little over eight years. Nearly 35 per cent. of the total 606 cases had had delirium tremens once or oftener; in one case there had been no fewer than thirteen attacks. About 90 per cent. of the cases were spirit drinkers (of these 9 per cent. drank wine, and 15 per cent. beer in addition); less than 6 per cent. drank wine alone, and less than 2 per cent. beer alone. Only about 20 per cent. had previously been in a retreat or under private care. The alleged exciting cause in over half the cases was "sociability;" the other assigned causes included nervous shock, as from domestic trouble, business worry, or financial loss; some special occupation influence—the most considerable being that of a wine and spirit merchant,—ill-health, injury, and both overwork and "no occupation." The results, as revealed by the after history of the cases, were that about 33 per cent. were doing well, about 7 per cent. were merely improved, about 30 per cent. were unimproved, 1 per cent. had become insane, 7 per cent. were dead, and 17 per cent. had not been heard from. The experience in regard to the applications for admission to the Dalrymple Home during the past year reveals the fact that the knowledge is becoming generalised among the community that an Inebriates Act exists, and that those who take advantage of it are not necessarily criminal. This good result is felt to be largely due to the energy of Dr. Branthwaite, H.M. Inspector of Retreats. Two of the great present needs are for more extended periods of treatment, and the compulsory treatment of those who cannot recognise themselves as habitually inebriate.

THE GOTHENBURG SYSTEM IN FIFE.

This system has been adopted with considerable success at Kelty and Hill of Beath villages, and in May last an effort was made to establish a public-house on that principle in Dunfermline. Mr. Ross, the originator of the scheme for the district, who presided at the meeting convened for the purpose, said that the houses at Hill of Beath and Kelty were being most uncharitably scrutinised, and that statements were being made against them which had positively no foundation in fact. These houses, instead of fostering drunkenness, were doing a great deal to diminish it and to promote temperance. One house had been acquired in Dunfermline for an experiment. He was more and more mystified by the opposition to the movement. The licensed victuallers had good cause to be alarmed, and were alarmed, but why the teetotalers should be alarmed passed his understanding. If they were so confident of the good sense of the people, why not allow the scheme to be laid fairly before them, and have the traffic managed by them? £3600 was the price to be paid for St. Margaret's Hotel, and a considerable number of shares were applied for.

In June the magistrates of Dunfermline met for the purpose of considering an application by the Secretary of the Dunfermline Public-house Society, Limited, for a transfer of the licence for St. Margaret's Hotel. A petition against the granting of the licence was submitted, stating that the Gothenburg experiment is calculated to retard temperance reform and to make public-houses respectable, and thus increase the demoralisation of the people. The magistrates, having considered their decision, intimated that the application was refused by a majority of three to two. One of the grounds on which the majority voted was that the Society should have acquired a public-house and not a well-conducted hotel.

The Committee of the Society thereafter provisionally purchased the Old Inn, with the view to conducting the business on the lines of the Hill of Beath and Kelty societies, the profits being applied to purposes of public utility. It is to be hoped that the Dunfermline magistrates will give the scheme a fair trial.

THE INEBRIATES ACT IN SCOTLAND.

As we go to press it is recorded that the first Scottish case has been dealt with. Before the Orkney Sheriff Court a pedlar pleaded guilty to being an habitual drunkard after fifty-eight previous convictions for petty offences. The sentence was that the accused be detained for three years in the State Reformatory at Perth.

OBITUARY.

John Davies Cleaton.

Mr. John Davies Cleaton, who died on the 21st of August after a long illness, was a familiar figure to asylum superintendents. Born in 1825 at Llanidloes, in Montgomeryshire, educated at Shrewsbury, commencing his medical curriculum at the infirmary of that town, and completing it at Guy's Hospital, he became a M.R.C.S.Eng. in 1850, and was appointed assistant medical officer to the County Asylum at Lancaster. Presently promoted to be medical superintendent of the Rainhill Asylum, and subsequently of that for the West Riding at Wakefield, he devoted himself, with the great energy and administrative capacity which were his, to the development of those institutions, and to the general amelioration of the condition and treatment of the insane. In 1866 he was selected by the Lord Chancellor for the appointment to a Commissionership in Lunacy in succession to Mr. Gaskell, and for upwards of twenty-seven years he devoted all his energy and capacity to the discharge of the duties of that office. In this position he at once made his mark, securing both the esteem and affectionate regard of his colleagues and the confidence and respect of asylum officials of all classes. For he was justly regarded as a man of fair mind, sound judgment, kindly disposition, sterling common sense, and intimate acquaintance with all the details of his work. In 1894 failure of health compelled his resignation of the active duties of a paid commissionership, but up to the time of his death he retained his seat at the Board as an honorary Commissioner in Lunacy.

Arthur Law Wade.

The members of our Association will learn with regret of the death in the prime of life of Dr. Law Wade, Medical Superintendent of the Somerset and Bath Asylum, Wells, on July 5th, in the fifty-fourth year of his age. Dr. Wade was the only son of the Rev. Benjamin Wade, Chancellor of Armagh Cathedral. He was a graduate in Arts and Medicine of Dublin, where he received the degree of M.D. in 1873. He was for a short time Medical Officer at the Royal Isle of Wight Infirmary, and afterwards held successively the posts of Senior Assistant Medical Officer to the Warwick and Barming Heath Asylums, and also for some time at the Private Asylum, Laverstock House, Salisbury. In 1881 Dr. Wade was appointed Medical Superintendent of the Somerset and Bath Asylum, Wells, and those who knew this asylum previous to his tenure of office and have seen it recently will readily bear testimony to the many and great improvements effected mainly through his energy and perseverance. Few are the asylums in this country where greater efforts have been made to bring an old building up to the standard of modern requirements, and in all this good work Dr. Wade was the main and moving spirit. He was passionately fond of his work, and though he did not do much by way of contributing papers to the journals, Dr. Wade was the happy possessor of a well-stored mind of much special, general, and useful information, and of late years he had become a most regular attendant at the meetings of the South-western Division. He had a great personality, which nowhere showed itself so much as at the home of his twenty years' labours. Dr. Wade at one time took a prominent part in Freemasonry circles, and in 1886–7 was the W.M. of Benevolent Lodge No. 446 (Wells), and was Provincial Grand S.D. in 1888. He was also first Principal of the Royal Arch Masons in 1890. Probably on account of his family connection with the Church he was much attached to the city of Wells, and in no line of thought was he more fluent than on the history and development of Church matters. His geniality and urbanity will be much missed by the citizens of Wells, and it is not too much to say that his loss will be sincerely regretted throughout the county. His keen interest in all Church matters and his prominent position in Freemasonry brought him into contact with a wide circle of friends, to whom his sudden death will come as a shock, but the keenest note of real regret comes from the institution where he had spent the best years of his all too short life. For many years of his life Dr. Wade was urging his committee to provide a suitable detached residence for the Medical Superintendent, and it seems but another of the cruel accidents of fate that in this very residence Dr. Wade had resided but for the short space of four weeks prior to his

lamented and unexpected death. Dr. Wade was twice married, and he leaves a widow and four children to mourn his loss.

TRACTS FOR ATTENDANTS, ETC.

By the Rev. H. HAWKINS.

We draw attention to the following tracts issued by the Society for Promoting Christian Knowledge, Northumberland Avenue, Charing Cross, W.C.:

"The New Asylum Nurse," 1*d.*

"Visiting Day at the Asylum," 1*d.*

"Friendly Talk with a New Patient," 2*d.*

"Treatment of the Insane—Then and Now," 2*d.*

"Off Duty," "Invalided," 2*d.*

2640. "Letter (from the Chaplain) to Attendant or Nurse in Service of Asylum," 4*s.* per 100.

2641. "We commend to Thy Fatherly Goodness all those who are anyways Afflicted or Distressed in Mind." A Prayer. On card, 3*s.* per 100.

2642. "Words to Friends of Patients in Asylums." On card, 3*s.* per 100.

NOTICE BY LIBRARIAN.

Professor Benedikt has sent a package of pamphlets on Medico-legal questions of interest to psychiatrists. Members desirous of possessing copies may have them at 11, Chandos Street.

NOTICES BY THE REGISTRAR.

The following gentlemen were successful at the examination for the Certificate in Psychological Medicine, held on July 18th, 1901.

Examined at Bethlem Royal Hospital, London: W. Norwood East, Augustine Downey.

The following is a list of the questions which appeared on the paper:

1. State the various types of epilepsy and of convulsive states as occurring in the insane. 2. Describe a case of climacteric melancholia, and suggest appropriate treatment. What is the prognosis? 3. Compare the therapeutic uses of paraldehyde and sulphonal and their disadvantages. 4. State the treatment you would advise in delusional insanity, and points that would guide you in giving a prognosis. 5. Describe "Anergic Stupor," and state the forms of mental disease in which the condition is found. 6. Enumerate the various disorders which resemble general paralysis of the insane, and discuss the ætiology of the disease.

The Gaskell Prize has been awarded to Dr. William Henry B. Stoddart, Assistant Physician, Bethlem Hospital, London.

The next examination for the certificate of Proficiency in Nursing will be held on Monday, November 4th, 1901, and candidates are earnestly requested to send in their schedules, duly filled up, to the Registrar of the Association not later than Monday, October 7th, as that will be the last day upon which, under the rules, applications for the examination can be received.

For full particulars respecting the various examinations of the Association apply to the Registrar, Dr. Benham, City Asylum, Fishponds, Bristol.

There will be no examination for the Medico-Psychological Professional Certificate in December.

NOTICES OF MEETINGS.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

General Meeting.—The next General Meeting will be held in the rooms of the Association, 11, Chandos Street, London, W., on Thursday, 21st November, 1901. Besides other papers, not yet definitely arranged for, there will be one from Sir

T. Lauder Brunton, M.D., F.R.S., on Fairies, Visions, Apparitions, and Hallucinations.

South-Eastern Division.—The Autumn Meeting will be held at the Holloway Sanatorium on Wednesday, 16th October, 1901.

South-Western Division.—The Autumn Meeting will be held at the Royal Mineral Water Hospital, Bath, on Tuesday, 22nd October, 1901, at 3 p.m. Dinner at Messrs. Fortt's, The Restaurant, Bath, at 6 p.m.

Northern Division.—The Autumn Meeting will be held at the York Lunatic Hospital, Bootham, York, on Wednesday, 30th October, 1901.

Scottish Division.—The Autumn Meeting will be held at Stirling District Asylum, Larbert, on Friday, 22nd November, 1901.

Irish Division.—The next meeting will be held at the Royal College of Physicians, Dublin, early in April, 1902.

APPOINTMENTS.

Findlay, John, M.B., M.Ch.(Aberd.), appointed Second Assistant Medical Officer to the Dorset County Asylum.

Fuller, Lawrence O., M.R.C.S.(Eng.), L.R.C.P.(Lond.), appointed Fourth Assistant Medical Officer at the Darenth Asylum.

Keogh, William, M.P., M.B., B.Ch., B.A.O.R.U.I., appointed Assistant Medical Officer, County Asylum, Newport, Isle of Wight.

Laing, C. F., M.B., C.M.Glasg., appointed Medical Superintendent to Somerset and Bath Asylum.

Leethbridge, R. W., M.B., B.Ch.M., appointed Medical Superintendent of the Sunbury Lunatic Asylum, Victoria.

Marr, G. W. S., M.B., appointed Assistant Medical Superintendent of the Hospital for the Insane at Toowoomba, Queensland.

Rorie, Geo., M.B., M.Ch.Edin., appointed Senior Assistant Medical Officer to the Dorset County Asylum.

Steell, John, M.B., Ch.M., appointed Medical Superintendent of the Ballarat Lunatic Asylum.

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ILLUSTRATIONS.

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