

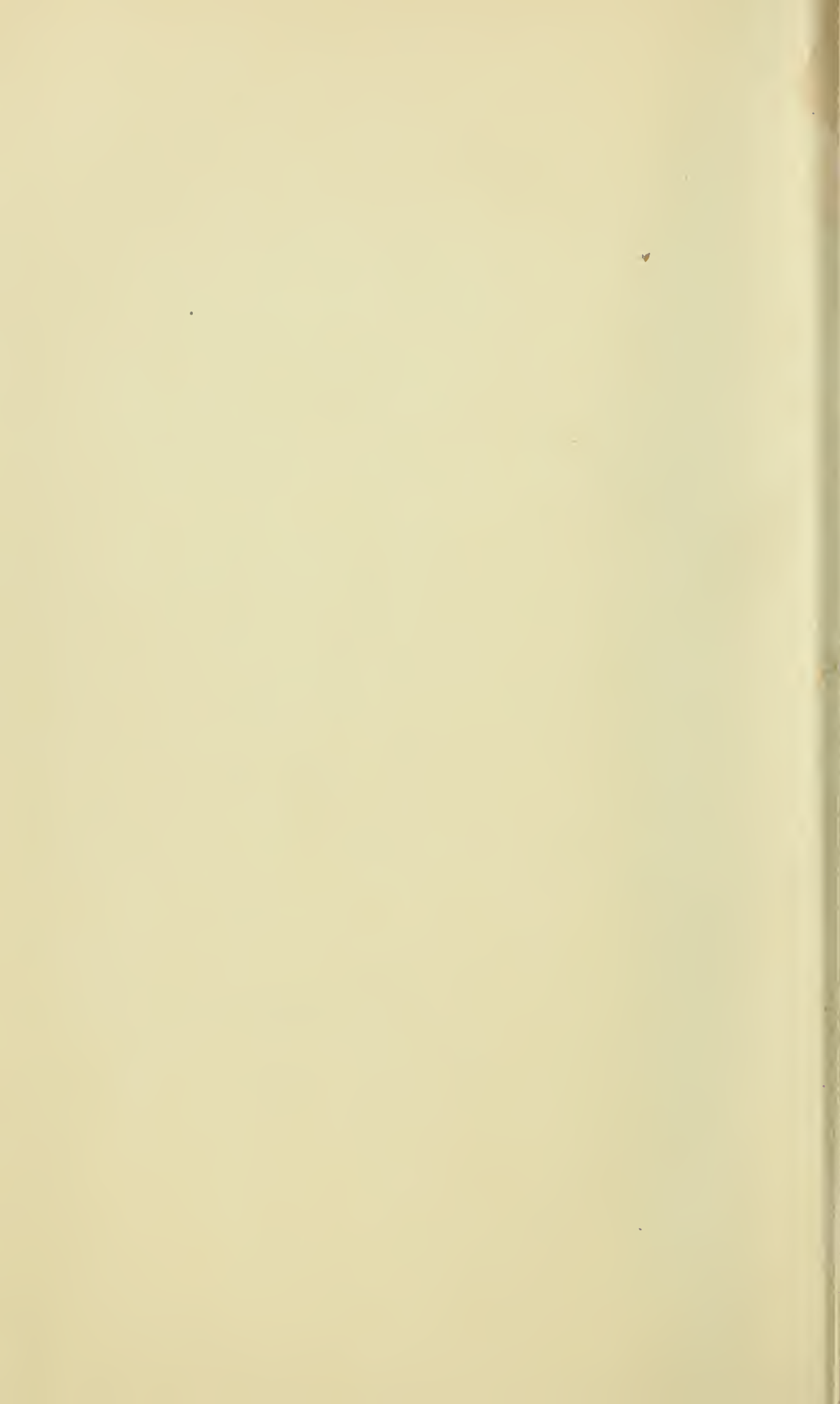
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TRANSACTIONS

OF THE

PATHOLOGICAL SOCIETY OF LONDON.

VOLUME ELEVENTH.

INCLUDING THE REPORT OF THE PROCEEDINGS FOR
THE SESSION 1859-60.

LONDON :

PRINTED FOR THE SOCIETY BY J. W. ROCHE, 5, KIRBY STREET.

1860.



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THE present publication being the Eleventh Volume of Transactions, constitutes the Fourteenth published Annual Report of the Pathological Society's proceedings.

The COUNCIL think it right to repeat, that the exhibitors are alone responsible for the descriptions given of the Specimens exhibited by them, the only change made in the Reports furnished by the authors being such verbal alterations as were absolutely necessary.

53, BERNERS STREET, OXFORD STREET,
September, 1860.

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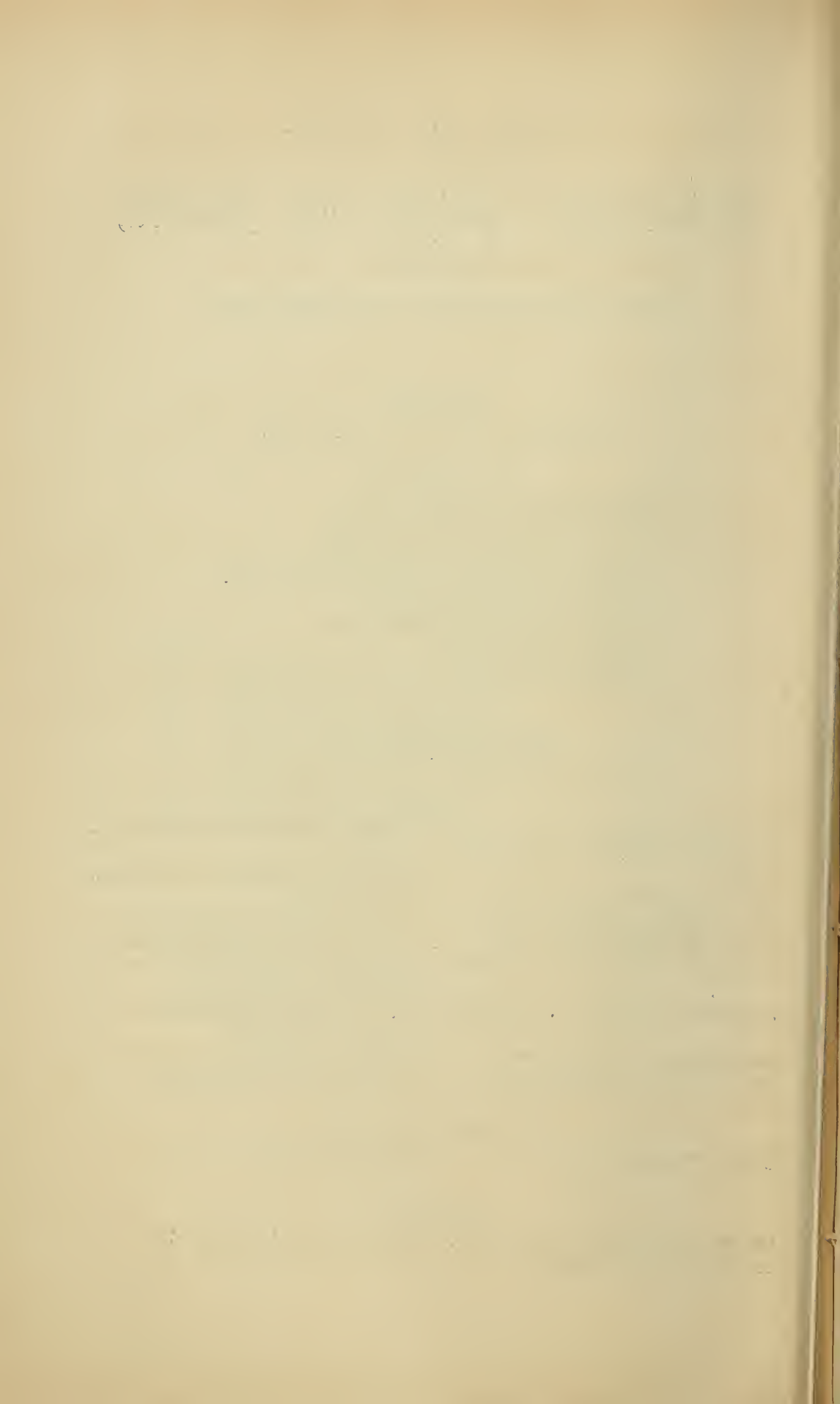
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VOGEL, JULIUS, M.D., Professor of Clinical Medicine in the University of Giessen.

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- (C.) Present Members of Council. * Former Members of Council.
† Have paid Composition Fee for Annual Subscriptions. † Have paid Composition Fee for Transactions.

GENERAL LIST OF MEMBERS.

Elected Session

- 1858-59 Acland, Henry Wentworth, M.D., F.R.S., Physician to the Radcliffe Infirmary, Oxford.
*Orig. Memb. Adams, William, Esq., Surgeon to the Royal Orthopædic Hospital, 5, Henrietta-street, Cavendish-square.
1858-59 Adams, William, Esq., 37, Harrington-square.
1847-48 Aikin, Charles A., Esq., 7, Clifton-place, Sussex-square, Hyde-park.
1857-58 Alison, S. Scott, M.D., Physician to the Hospital for Consumption, Brompton, 80, Park-street, Grosvenor-square.
1859-60 Andrew, Edwyn, M.D., Resident Medical Officer University College Hospital, and St. Austell, Cornwall.
1857-58 Anstie, Francis E., M.B., Assistant Physician to the Westminster Hospital, 15, Onslow-square, Brompton.
1854-55 Armitage, Thomas Rhodes, M.D., Physician to St. Marylebone General Dispensary, 26, Brook-street, Grosvenor-square.
*Orig. Memb. Arnott, James Moncrieff, Esq., F.R.S. (late President, V.P.), 2, New Burlington-street.
1851-52 Ashton, T. J., Esq., Surgeon to the Blenheim-street Dispensary, 31, Cavendish-square.
1857-58 Avent, Nicholas, Esq., House Surgeon to the St. George's and St. James's Dispensary, Gracechurch-street.

Elected Session

- **Orig. Memb.* Babington, Benjamin Guy, M.D., F.R.S. (late President, V.P.),
31, George-street, Hanover-square.
- 1854-55 Babington, C. Metcalfe Stuart, F.R.C.P., Physician-Accoucheur to
Queen Charlotte's Lying-in-Hospital, 29, Hertford-street, Mayfair.
- 1856-57 Balding, Daniel Barley, Esq., Royston, Herts.
- 1849-50 Ballard, Thomas, Esq. (C.), 10, Southwick-place, Hyde-park.
- *1850-51 Baly, William, M.D., F.R.S., Assistant-Physician to St. Bartholomew's
Hospital, 19, Queen Anne-street, Cavendish-square.
- 1851-52 Barclay, A. Whyte, M.D. (C.), Assistant-Physician to St. George's
Hospital, 23A, Bruton-street, Berkeley-square.
- 1855-56 Barker, T. A., M.D., Senior Physician to St. Thomas's Hospital,
71, Lower Grosvenor-street.
- Orig. Memb.* Barker, Thomas Herbert, M.D., Harpur-place, Bedford.
- **Orig. Memb.* Barlow, George Hilaro, M.D. (V.P.), Physician to Guy's Hospital,
5, Union-street, Southwark.
- 1852-53 Bartlett, William, Esq., Surgeon to the Kensington Dispensary, Lad-
broke Lodge, Ladbroke-square, Notting-hill.
- 1852-53 Barwell, Richard, Esq., Assistant-Surgeon to the Charing Cross Hos-
pital, 22, Old Burlington-street.
- 1857-58 Basham, William R., M.D., Senior Physician to the Westminster
Hospital, 17, Chester-street, Grosvenor-place.
- *1851-52 Beale, Lionel S., M.B., F.R.S., Physician to King's College Hospital,
61, Grosvenor-Street.
- 1855-56 Bealey, Adam, M.D., M.A., 27, Tavistock-square.
- 1852-53 Beck, Thomas Snow, M.D., F.R.S., 9A, Langham-place.
- *1849-50 Beith, Robert, M.D., Surgeon, Royal Naval Hospital, Deal.
- 1846-47 Bennet, James Henry, M.D., Physician-Accoucheur to the Royal Free
Hospital.
- **Orig. Memb.* Bennett, James Risdon, M.D. (late V.P.), Physician to St.
Thomas's Hospital, and to the City of London Hospital for Diseases
of the Chest, 15, Finsbury-square.
- ‡1856-57 Bickersteth, Edward R., Esq., Surgeon to the Liverpool Royal Infirmary,
2, Rodney-street, Liverpool.
- *1848-49 Bird, James, M.D., Lecturer on Military Surgery at St. Mary's Hospi-
tal, 27, Hyde-park-square.
- 1855-56 Bird, W., Esq., Surgeon to the West of London Hospital and the St.
George's and St. James's Dispensary, 11, George Street, Hanover-
square.
- *1849-50 Birkett, Edmund Lloyd, M.D., Physician to the City of London Hos-
pital for Diseases of the Chest, 48, Russell-square.
- **Orig. Memb.* Birkett, John, Esq., (V.P.), Surgeon to Guy's Hospital, 59, Green-
street, Grosvenor-square.
- 1853-54 Black, Cornelius, M.D., Physician to the Chesterfield Dispensary, St.
Mary's-gate, Chesterfield.
- 1849-50 Blagden, Robert, Esq., Stroud, Gloucestershire.
- 1859-60 Bloomenthal, Theodore, Esq., Samaritan Hospital, Edwards-street,
Portman-square.
- 1855-56 Borham, W. H., Esq., 19, Cambridge-terrace, Hyde-park.
- *1850-51 Bowman, William, Esq., F.R.S., Surgeon to King's College Hospital,
and to the Royal Ophthalmic Hospital, 5, Clifford-street.

Elected Session

- *1846-47 Brinton, William, M.D., Physician to St. Thomas's Hospital, 20, Brook-street, Grosvenor-square.
- 1856-57 Briscoe, John, Esq., House Surgeon and Apothecary, Radcliffe Infirmary, Oxford.
- *†1850-51 Bristowe, John, S., M.D., Physician to St. Thomas's Hospital, 3, St. Thomas's-street, Borough.
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- 1851-52 Brodhurst, Bernard E., Esq., Assistant Surgeon to the Royal Orthopædic Hospital, 20, Grosvenor-street.
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- 1859-60 Browning, George, M.D., 10, St. Stephen's-crescent, Westbourne-park.
- 1855-56 Bryant, T., Esq., Assistant Surgeon to Guy's Hospital, 40, Wellington-street, London-bridge.
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- 1858-59 Buckland, Francis, Esq., Surgeon to the 2nd Regiment of Life Guards, Windsor.
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- *1856-57 Buzzard, Thomas, M.B., 41, Great Marlborough-street.
- 1856-57 Callender, G. W., Esq., Surgeon to the North London Eye Infirmary, 47, Queen Anne-street, Cavendish-square,
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- *1849-50 Canton, Edwin, Esq., Surgeon to the Charing Cross Hospital, 30, Montague-place, Russell-square.
- 1854-55 Carpenter, Alfred, Esq., M.B., High-street, Croydon.
- 1848-49 Carpenter, William Guest, Esq., Amersham, Bucks.
- 1855-56 Carter, H. V., M.D., Bombay; late of St. George's Hospital.
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- 1851-52 Childs, George Borlase, Esq., Surgeon to the Metropolitan Free Hospital, and to the City Police Force, 11, Finsbury-place, South.
- 1854-55 Cholmeley, William, M.D., Physician to the West London Dispensary, 40, Russell-square.
- 1851-52 Chowne, William D., M.D. (C.), Physician to the Charing Cross Hospital, 8, Connaught-place West, Hyde-park.

Elected Session

- 1853-54 Clark, Andrew, M.D., Assistant Physician to the London Hospital, 23, Montague-place, Russell-square.
- 1849-50 Clarke, John, Esq., L.R.C.P., Physician-Accoucheur to the British Lying-in-Hospital, 42, Hertford-street, May-fair.
- 1854-55 Clover, J. Thomas, Esq., 3, Cavendish-place.
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- 1850-51 Cooper, William White, Esq. (C.), Ophthalmic Surgeon to St. Mary's Hospital, and Surgeon to the North London Eye Infirmary, 19, Berkeley-square.
- 1858-59 Coote, Charles T., M.D., Assistant Physician and Lecturer on Medical Jurisprudence at the Middlesex Hospital, 1, Gloucester-place, Hyde-park.
- **Orig. Memb.* Copland, James, M.D., F.R.S. (late V.P. and Treasurer), Consulting Physician at the Royal Infirmary for Children, 5, Old Burlington-street.
- 1853-54 Cornish, William Robert, Esq.
- 1858-59 Coulson, Walter J., Esq., Curator of the Museum at St. Mary's Hospital.
- **Orig. Memb.* Coulson, William, Esq., Senior Surgeon to St. Mary's Hospital, 1, Chester-terrace, Regent's-park.
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- **Orig. Memb.* Crisp, Edwards, M.D., 278, King's-road, Chelsea.
- *1848-49 Critchett, George, Esq. (formerly Honorary Secretary), Senior Assistant-Surgeon to the London Hospital, and Surgeon to the Royal London Ophthalmic Hospital, Moorfields, 46, Finsbury-square.
- 1855-56 Croft, John, Esq., Surgeon to the Surrey Dispensary.
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- 1854-55 Daubeny, Henry, M.D.
- **Orig. Memb.* Davies, Herbert, M.D., Physician to the Infirmary for Asthma, &c., and to the London Hospital, 23, Finsbury-square.
- *1846-47 Davis, John Hall, M.D., Physician to the Royal Maternity Charity, 11, Harley-street, Cavendish-square.

Elected Session

- 1859-60 Davis, Francis William, Esq., R.N., Assistant-Surgeon, Royal Hospital, Greenwich.
- **Orig. Memb.* Day, George E., M.D., Chandos Professor of Anatomy in the University of St. Andrews.
- 1857-58 Delima, Teofilo, M.D., Caracas, South America.
- 1851-52 Devenish, Samuel Weston, M.B., 7, Billiter-square.
- 1855-56 Dick, H., M.D., 59, Wimpole-street.
- 1858-59 Dickinson, W. H., M.B., 9, Chesterfield-street, May-fair.
- **Orig. Memb.* Dixon, James, Esq. (V.P.), Surgeon to the Royal London Ophthalmic Hospital, Moorfields, 2, Portman-square.
- 1855-56 Druitt, R., L.R.C.P., Medical Officer of Health for St. George's, Hanover-square, 37, Hertford-street, May-fair.
- 1851-52 Drury, James Samuel, M.D., 13, Radnor-place, Hyde-park.
- 1846-47 Dudgeon, Robert E., M.D., 82, Gloucester-place, Portman-square.
- 1851-52 Duff, George, M.D., High-street, Elgin.
- 1858-59 Durham, Arthur Edward, Esq., Demonstrator of Anatomy at Guy's Hospital.
- 1848-49 Eden, Thomas E., Esq., Surgeon-Dentist to the Farringdon General Dispensary, 45, Threadneedle-street.
- 1854-55 Edwards, George N., M.D., Assistant-Physician to St. Bartholomew's Hospital, and to the City of London Hospital for Diseases of the Chest, 1, Finsbury-square.
- 1846-47 Ellis, Joseph, Esq., Sudbrook-park, Richmond, Surrey.
- *1846-47 Erichsen, John, Esq., Surgeon to University College Hospital, 6, Cavendish-place, Cavendish-square.
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- *1847-48 Fergusson, William, Esq., F.R.S. (President), Surgeon to King's College Hospital, 16, George-street, Hanover-square.
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- *1846-47 Fincham, George T., M.D., Physician to the Westminster Hospital, 2, Eccleston-terrace South, Eccleston-square.
- 1853-54 Fisher, W. Webster, M.D., Downing Professor of Medicine, Cambridge.
- 1859-60 Fisher, Alexander, M.D., Assistant-Surgeon R.N., Royal Hospital, Greenwich.
- 1855-56 Flower, William H., Esq., Surgeon to the Marylebone General Dispensary, and Assistant-Surgeon to the Middlesex Hospital, 32, Queen Anne-street, Cavendish-square.
- 1851-52 Forbes, J. Gregory, Esq. (C.), Surgeon to the Metropolitan Convalescent Institution, 9, Devonport-street, Hyde-park.
- 1849-50 Foreman, Robert Clifton, M.D., Resident Physician to the Asylum for Imbecile Children, Colville-house, Lowestoft.
- *†*Orig. Memb.* Forster, John Cooper, Esq., Assistant-Surgeon to Guy's Hospital, Surgeon to the Royal Infirmary for Children, 11, Wellington-street, Southwark.

Elected Session

- 1859-60 Foster, Michael, M.D., Curator of the Pathological Museum, University College.
- 1858-59 Francis, Charles Richard, M.B., Bengal Medical Establishment, Indian Army.
- 1853-54 Freeman, William Henry, Esq., 21, Spring-gardens.
Orig. Memb. Frere, J. C., Esq., Trinity College, Cambridge.
- *1846-47 Fuller, Henry W., M.D., Physician to St. George's Hospital, 13, Manchester-square.
- †1858-59 Gairdner, William Tennant, M.D., Physician to the Royal Infirmary, 52, Northumberland-street, Edinburgh.
- 1855-56 Gamgee, Joseph Sampson, Esq., Queen's Hospital, Birmingham.
- 1855-56 Gamgee, J., Esq., New Veterinary College, Edinburgh.
- 1850-51 Garrett, Mark Brown, Esq., 3, New-road, St. George's East.
- *1846-47 Garrod, Alfred Baring, M.D., F.R.S., Physician to University College Hospital, 84, Harley-street, Cavendish-square.
- 1858-59 Gascoyen, George Green, Esq., Assistant-Surgeon to the Lock Hospital, and Lecturer on Anatomy at St. Mary's Hospital, 25, Oxford-terrace, Hyde-park.
- 1855-56 Gaskoin, George, Esq., 3, Westbourne-park, Paddington.
- **Orig. Memb.* Gay, John, Esq., Senior Surgeon to the Great Northern Hospital, King's-cross, 10, Finsbury-place South.
- 1854-55 Gibb, George Duncan, M.D., F.G.S., Physician to the West London Dispensary, 22, Portman-street, Portman-square.
- 1853-54 Gibbon, Septimus, M.D., Assistant-Physician to the London Hospital, 3, Finsbury-square.
- †1857-58 Godfrey, Benjamin, M.D., Carlton-house, Enfield.
- 1854-55 Goodfellow, Stephen Jennings, M.D., Physician to the Middlesex Hospital, 5, Savile-row, Burlington-gardens.
- 1856-57 Goolden, R. H., M.D., Physician to St. Thomas's Hospital, 41, Sussex-gardens, Hyde-park.
- 1857-58 Gowlland, Peter Y., Esq., Assistant-Surgeon to the London Hospital, 34, Finsbury-square.
- *1848-49 Gray, Henry, Esq., F.R.S., Surgeon to St. George's and St. James's Dispensary, 8, Wilton-Street, Grosvenor-place.
- 1846-47 Gream, George T., M.D., 2, Upper Brook-street, Grosvenor-square.
- 1856-57 Greenhalgh, Robert, M.D., Consulting Physician-Accoucheur to St. John's Wood Dispensary, 11, Upper Woburn-place.
- †1854-55 Greenhill, William Alexander, M.D., Physician to the Hastings Infirmary, Carlisle-parade, Hastings.
- 1858-59 Gunn, Theophilus Miller, Esq., 40, York-place, Portman-square.
- *1849-50 Habershon, Samuel O., M.D., Assistant-Physician to Guy's Hospital, 22, Wimpole-street, Cavendish-square.
- 1851-52 Hacon, E. Dennis, Esq., Mare-street, Hackney.
- †1851-52 Halley, Alexander, M.D., 7, Harley-street, Cavendish-square.
- 1851-52 Hansard, Richard James, Esq., Surgeon to the Radcliffe Infirmary, 5, Broad-street, Oxford.
- *1847-48 Hare, Charles John, M.D., Physician to University College Hospital, 41, Brook-street, Grosvenor-square.

Elected Session

- †1855-56 Harley, George, M.D., Professor of Medical Jurisprudence in University College, London, 77, Harley-street.
- 1859-60 Harris, Francis, M.D., Assistant-Physician to the Hospital for Sick Children, and Demonstrator of Pathological Anatomy at St. Bartholomew's Hospital, 11, New Cavendish-street, Portland-place.
- †1857-58 Hart, Ernest, Esq., Junior Surgeon to the North London Ophthalmic Infirmary, 69, Wimpole-street.
- †1859-60 Hastings, Cecil William, M.B., Demonstrator of Anatomy at St. George's Hospital, 7, Hertford-street, May-fair.
- **Orig. Memb.* Hawkins, Cæsar H., Esq., F.R.S. (late President), Senior Surgeon to St. George's Hospital, 26, Grosvenor-street.
- 1851-52 Hawkins, Charles, Esq., Consulting Surgeon to Queen Charlotte's Hospital, and Inspector of Anatomy, 22, Savile-row.
- 1856-57 Hawksley, Thos., M.D., Physician to the Margaret-street Dispensary for Consumption, 26, George-street, Hanover-square.
- 1856-57 Heath, Christopher, Esq., Demonstrator of Anatomy at the Westminster Hospital, 31, Sackville-street, Piccadilly.
- 1858-59 Henderson, Andrew, Esq., 14, Upper Seymour-street.
- *1848-49 Henry Mitchell, Esq. (C., late Hon. Secretary), Surgeon to the Middlesex Hospital, and to the North London Eye Infirmary, 5, Harley-street, Cavendish-square.
- **Orig. Memb.* Hewett, Prescott G., Esq. (late V.P.), Assistant-Surgeon to St. George's Hospital, 1, Chesterfield-street, May-fair.
- 1854-55 Hewitt, Graily, M.D., Physician to the British Lying-in-Hospital, and Lecturer on Midwifery and Diseases of Children at St. Mary's Hospital, 17, Radnor-place, Hyde-park.
- 1859-60 Hill, Matthew Berkeley, M.B., Lond., Hospital for Sick Children, Great Ormond-street.
- 1854-55 Hillier, Thomas, M.D., Medical Officer of Health for St. Pancras, 21, Upper Gower-street, Bedford-square.
- **Orig. Memb.* Hillman, William Augustus, Esq., Senior Assistant-Surgeon to the Westminster Hospital, 1, Argyll-street, Regent-street.
- **Orig. Memb.* Hilton, John, Esq., F.R.S., Surgeon to Guy's Hospital, 10, New Broad-street, City.
- 1855-56 Hinton, J., Esq., 9, Philip-terrace, Tottenham.
- *1850-51 Hodgson, Joseph, Esq., F.R.S., 60, Westbourne-terrace.
- 1852-53 Hogg, Jabez, Esq. (C.), Assistant-Surgeon to the Westminster Ophthalmic Hospital, 1, Bedford-square.
- 1846-47 Holman, H. Martin, M.D., Hurstpierpoint, Sussex.
- 1854-55 Holmes, Timothy, Esq., Curator of the Pathological Museum of St. George's Hospital, and Surgeon to the North London Eye Infirmary, 22, Queen-street, May-fair.
- *1849-50 Holt, Barnard Wight, Esq., Senior Surgeon to the Westminster Hospital, 5, Parliament-street.
- 1853-54 Hood, William Charles, M.D., Resident Physician, Bethlem Hospital.
- 1858-59 Hooper, W., Esq., Resident Assistant Obstetric Officer at St. George's Hospital.
- 1850-51 Hore, Henry A., Esq., Surgeon to the Bristol Royal Infirmary.
- 1857-58 Hornidge, Thomas King, Esq., 15, Charles-street, Westbourne-terrace.

Elected Session

- †1855-56 Hudson, John, M.D., 11, Cork-street.
 1854-55 Hulke, John Whitaker, Esq., Assistant-Surgeon to King's College Hospital, 10, Old Burlington-street.
 1854-55 Hulme, Edward Charles, Esq., Surgeon to the Central London Ophthalmic Hospital, and Surgeon to the Blenheim Free Dispensary, 19, Gower-street, Bedford-square.
 1852-53 Humby, Edwin, Esq., 1, Windsor-terrace, Maida-hill.
 *1852-53 Hutchinson, Jonathan, Esq., Assistant-Surgeon to the London Hospital, and Surgeon to the Metropolitan Free Hospital, 14, Finsbury-circus.
- †1856-57 Jackson, Henry, Esq., Senior Surgeon to the Sheffield Infirmary, St. James's-row, Sheffield.
 1859-60 Jackson, Thomas Carr, Esq., 3, Weymouth-street, Portland-place.
 †1853-54 Jardine, J. L., Esq., Brixton-hill, Surrey.
 1846-47 Jay, Edward, Esq., 51, Park-street, Grosvenor-square.
 **Orig. Memb.* Jeafreson, Henry, M.D. (late V.P.), Physician to St. Bartholomew's Hospital, and Consulting Physician to the City of London Hospital for Diseases of the Chest, 2, Finsbury-square.
 **Orig. Memb.* Jenner, William, M.D., Physician to the Hospital for Sick Children, and to University College Hospital, 8, Harley-street.
 1854-55 Johnson, Athol A. W., Esq., Surgeon to the Hospital for Sick Children 37, Albemarle-street.
 1854-55 Johnson, Edward, M.D., 19, Cavendish-place, Cavendish-square.
 **Orig. Memb.* Johnson, George, M.D., Physician to King's College Hospital, 11, Savile-row.
 1846-47 Johnson, Henry Charles, Esq., Surgeon to St. George's Hospital, 6, Savile-row.
 *†*Orig. Memb.* Jones, Henry Bence, M.D., F.R.S. (late V.P.), Physician to St. George's Hospital, 31, Brook-street, Grosvenor-square.
 1853-54 Jones, Sydney, M.B., Assistant Surgeon to St. Thomas's Hospital, 15, St. Thomas's-street.
 1856-57 Jones, George Matthew, Esq., Surgeon to the General Hospital, Old-street, St. Heliers, Jersey.
 1858-59 Jones, William Price, M.D., Surbiton, Kingston.
 1859-60 Jones, Walter, Esq., College-yard, Worcester.
- 1846-47 Kent, Thomas J., Esq., Carlton Hotel, 16, Regent-street.
 1852-53 Kershaw, W. Wayland, M.D., Kingston-on-Thames.
 1859-60 Kiallmark, Henry Walter, Esq., 46, Princes-square, Westbourne-grove.
 1851-52 Kingdon, J. Abernethy, Esq., Surgeon to the City Dispensary, and to the City Truss Society, 2, New Bank-buildings.
 1856-57 Kingsley, Henry, M.D., Physician to the Stratford Infirmary, Stratford-on-Avon.
 1854-55 Kirby, Edmund A., M.D., 1, Taviton-street, Gordon-square.
 1854-55 Kirkes, William Scnhouse, M.D., Assistant Physician to St. Bartholomew's Hospital, 2, Lower Seymour-street.
- 1850-51 Langmore, John C., M.B., (C.), 20, Oxford-terrace, Hyde-park.

Elected Session

- 1857-58 Lankester, Edwin, M.D., F.R.S., Medical Officer of Health for St. James's, Westminster, 8, Savile-row.
- *1849-50 Latham, Peter Mere, M.D. (late President), late Physician to St. Bartholomew's Hospital, 36, Grosvenor-street.
- 1856-57 Laurence, John Z., Esq., Surgeon to the Northern Dispensary, 30, Devonshire-street, Portland-place.
- 1853-54 Lawrence, Henry John Hughes, Esq., Assistant Surgeon, Grenadier Guards.
- 1858-59 Lawson, George, Esq., Surgeon to the Great Northern Hospital, 63, Park-street, Grosvenor-square.
- 1857-58 Leared, Arthur, M.B., Physician to the Royal Infirmary for Diseases of the Chest, 12, Old Burlington-street.
- 1851-52 Lee, Henry, Esq., (C.), Surgeon to King's College Hospital, and Senior Surgeon to the Lock Hospital, 9, Savile-row.
- 1852-53 Leggatt, Alfred, Esq., 13, William-street, Lowndes-square.
- *1849-50 Liddell, Sir John, C.B., M.D., F.R.S., Director-General of the Medical Department of the Navy, Somerset House.
- *1848-49 Little, William John., M.D. (late V.P.), Physician to the London Hospital, 34, Brook-street, Grosvenor-square.
- **Orig. Memb.* Lloyd, Edward, M.D., Physician to the Royal General Dispensary, 4, Suffolk-place, Pall-mall.
- 1852-53 Lloyd, Eusebius A., Esq., Surgeon to St. Bartholomew's and Christ's Hospitals, 14, Bedford-row.
- 1855-56 Macann, Arthur B., Esq., 22, King-street, Portman-square.
- 1858-59 Mackay, Allan Douglas, M.B., Hertford.
- 1857-58 Marcet, William, M.D., Assistant Physician to the Westminster Hospital, 36, Chapel-street, Belgrave-square.
- 1851-52 Markham, William O., M.D. (C.), Physician to St. Mary's Hospital, 33, Clarges-street, Piccadilly.
- 1846-47 Marshall, John, Esq., F.R.S., Surgeon to University College Hospital, 10, Savile-row.
- 1856-57 Martin, Robert, M.D., Assistant Physician to St. Bartholomew's Hospital, Warden's Residence, St. Bartholomew's Hospital.
- 1852-53 Martyn, S., M.D., Senior Physician to the Bristol General Hospital, 26, Park-street, Bristol.
- 1858-59 Martyn, William, Esq., 6, Trevor-terrace, Rutland-gate, Brompton.
- 1858-59 Masters, Maxwell T., Esq., 2, Rye-crescent, Peckham-rye.
- 1858-59 Maunder, C. F., Esq., Assistant Surgeon to the London Hospital.
- †1851-52 May, George, M.B., Surgeon to the Royal Berkshire Hospital, Reading.
- 1858-59 Meadows, Alfred, M.D., Assistant Physician for the Diseases of Women and Children, at King's College Hospital, Physician-Accoucheur to the St. George's and St. James's Dispensary, 9, Cavendish-place, Cavendish-square.
- 1857-58 Meller, Charles James, Esq., Minto, Roxburghshire.
- 1859-60 Messer, John Cockburn, M.D., Assistant Surgeon, R.N., Royal Hospital, Greenwich.
- 1854-55 Miles, Charles, Esq., 13, Conduit-street West, Hyde-park.
- 1859-60 Mitchelson, George Frederick, M.D., 7, Kensington-gardens-terrace, Bayswater.

Elected Session

- 1858-59 Montefiore, Nathaniel, Esq., 36, Hyde-park-gardens.
 1846-47 Morgan, John, Esq., 3, Sussex-place, Hyde-park-gardens.
 1852-53 Moseley, George, Esq.
 1859-60 Moxon, Walter, M.B., Demonstrator of Anatomy at Guy's Hospital, Barnsbury-park.
 1854-55 Murchison, Charles, M.D. (C.) Assistant Physician to King's College and to the London Fever Hospitals, 79, Wimpole-street.
- 1856-57 Nunn, Thomas William, Esq., Assistant Surgeon to the Middlesex Hospital, 8, Stratford-place, Oxford-street.
- ‡1858-59 Nunneley, Thomas, Esq., Senior Surgeon to the Leeds Eye and Ear Infirmary, Leeds.
- †1850-51 Obré, Henry, Esq., Surgeon to the St. Marylebone Eye and Ear Institution, 1, Melcombe-place, Dorset-square.
 1852-53 O'Connor, William, M.D., Physician to the Royal Free Hospital, 30, Upper Montagu-street, Montagu-square.
- *1850-51 Ogle, John W., M.D. (Hon. Secretary), Assistant Physician to St. George's Hospital, 13, Upper Brook-street, Grosvenor-square.
 1853-54 Ogle, William, M.D., Physician to the Royal Pimlico Dispensary, 9, Lower Belgrave-street, Eaton-square.
- ‡1855-56 Oldfield, Edmund, Esq., Boscomb Lodge, Finchley-road.
 1859-60 Orange, William, Esq.
 1857-58 Ord, William Miller, M.B., Registrar and Demonstrator of Anatomy at St. Thomas's Hospital, Brixton-hill.
- 1859-60 Paget, Edward H., Esq., Friar's-lane, Leicester.
 1853-54 Parkinson, George, Esq., 16, Hereford-street, Park-lane.
 1853-54 Part, James, Esq., 7, Camden-road-villas, Camden-town.
- **Orig. Memb.* Partridge, Richard, Esq., F.R.S. (late V.P.), Surgeon to King's College Hospital, 17, New-street, Spring-gardens.
- **Orig. Memb.* Peacock, Thomas Beville, M.D. (C.), (late V.P. and Hon. Secretary,) Physician to St. Thomas's Hospital, and Physician to the City of London Hospital for Diseases of the Chest, 20, Finsbury-circus.
- **Orig. Memb.* Poland, Alfred, Esq., Assistant Surgeon to Guy's, and Surgeon to the Royal London Ophthalmic Hospitals, 10, Bolton-row, Curzon-street, May-fair.
- *1846-47 Pollock, George, D., Esq. (late Honorary Secretary), Assistant Surgeon to St. George's Hospital, 27, Grosvenor-street.
 1850-51 Pollock, James Edward, M.D., Assistant Physician to the Hospital for Consumption and Diseases of the Chest, Brompton, 52, Upper Brook-street.
- 1858-59 Potter, Henry, Esq., 56, Maddox-street, Hanover-square.
 1854-55 Potts, William, Esq., 12, North Audley-street.
 1856-57 Price, Peter Charles, Esq., Surgeon to the Great Northern Hospital, King's-cross, and to the Metropolitan Institution for Scrofulous Children, at Margate, 7, Green-street, Grosvenor-square.

Elected Session

- 1856-57 Priestley, William Overend, M.D., Lecturer on Midwifery at the Middlesex Hospital, Physician-Accoucheur to the St. Marylebone Infirmary, and Physician to the Samaritan Free Hospital, 31, Somerset-street, Portman-square.
- †1848-49 Purnell, John James, Esq. (C.), Surgeon to the Royal General Dispensary, Woodlands, Streatham-hill.
- 1850-51 Pyle, John, Esq., 56, Oxford-terrace, Hyde-park.
- **Orig. Memb.* Quain, Richard, M.D. (Treasurer, late Hon. Secretary), Physician to the Hospital for Consumption and Diseases of the Chest, Brompton, 23, Harley-street, Cavendish-square.
- 1859-60 Radcliffe, Charles Bland, M.D., Physician to the Westminster Hospital, 4, Henrietta-street, Cavendish-square.
- 1855-56 Rae, J., Esq., Surgeon, R.N., Haslar Hospital.
- **Orig. Memb.* Ramsbotham, Francis H., M.D. (late V.P.), Physician-Accoucheur to the London Hospital, 8, Portman-square.
- 1856-57 Ramskill, J. Spence, M.D., Senior Physician to the Metropolitan Free Hospital, 5, St. Helen's-place, Bishopsgate-street.
- 1847-48 Randall, John, M.D., Medical Officer, St. Marylebone Infirmary, 14, Portman-street, Portman-square.
- 1856-57 Ranke, Henry, M.D.
- 1846-47 Ray, Edward, Esq., Dulwich.
- 1858-59 Reed, Frederick George, M.D., 46, Hertford-street, May-fair.
- 1854-55 Reynolds, J. Russell, M.D., Assistant Physician to the Westminster Hospital, 38, Grosvenor-street.
- 1856-57 Richardson, Benjamin Ward, M.A., M.D., Physician to the Royal Infirmary for Diseases of the Chest, 12, Hinde-street, Manchester-square.
- **Orig. Memb.* Ridge, Joseph, M.D., 39, Dorset-square.
- **Orig. Memb.* Roe, George Hamilton, M.D., Senior Physician to the Hospital for Consumption and Diseases of the Chest, Brompton, 57, Park-street, Grosvenor-square.
- 1855-56 Roberts, John Henry, Esq., 10, Finchley-road, St. John's-wood.
- 1856-57 Robinson, Thomas, M.D., 45, Cumming-street, Pentonville.
- 1859-60 Robinson, Frederick, M.D., Battalion Surgeon, Scots Fusilier Guards, Wellington Barracks.
- 1858-59 Rolleston, George, M.D., Physician to the Radcliffe Infirmary, 5, Broad-street, Oxford.
- 1851-52 Rooke, H. T., M.D., Wisbeach, Cambridgeshire.
- 1858-59 Rose, Henry Cooper, Esq., High-street, Hampstead.
- 1858-59 Rouse, James, Esq., Assistant Surgeon to the Royal Ophthalmic Hospital, 56, Maddox-street, Hanover-square.
- 1852-53 Salter, Henry Hyde, M.D., F.R.S. (C.), Assistant Physician to the Charing-cross Hospital, 6, Montague-street, Russell-square.
- 1853-54 Salter, Samuel James A., M.B., Surgeon-Dentist to Guy's Hospital, 17, New Broad-street.
- 1852-53 Sanderson, Hugh James, M.D., Physician to the Hospital for Women, 26, Upper Berkeley-street.

Elected Session

- 1854-55 Sanderson, John Burdon, M.D., Assistant Physician to the Hospital for Consumption, Medical Officer of Health for Paddington, 9, Gloucester-place, Hyde-park.
- 1857-58 Schulhof, Maurice, M.D., Physician to the Royal General Dispensary, Bartholomew-close, 14, Brook-street.
- 1853-54 Scott, John, Esq., Surgeon to the Hospital for Women, Soho-square, 65, Harley-street, Cavendish-square.
- †1858-59 Scratchley, George, M.D., B.L.S., Member of the University of France; New Orleans, Louisiana, U.S.
- 1846-47 Seaton, Edward C., M.D. (C.), Surgeon to the Chelsea, Brompton, and Belgrave Dispensary, 33, Sloane-street, Knightsbridge.
- 1856-57 Sedgwick, William, Esq., Surgeon to the St. Marylebone Provident Dispensary, 12, Park-place, Upper Baker-street.
- 1852-53 Semple, Robert Hunter, M.D. (C.), Physician to the Northern Dispensary, 8, Torrington-square.
- **Orig. Memb.* Shaw, Alexander, Esq. (V.P., late Treasurer), Surgeon to the Middlesex Hospital, 22A, Cavendish-square.
- 1856-57 Shillitoe, Buxton, Esq., 34, Finsbury-circus.
- 1855-56 Sibley, Septimus W., Esq., Medical Registrar to the Middlesex Hospital, 12, New Burlington-street.
- *1848-49 Sibson, Francis, M.D., F.R.S., Physician to St. Mary's Hospital, 40, Brook-street, Grosvenor-square.
- *1847-48 Sieveking, Edward H., M.D., Physician to St. Mary's Hospital, 17, Manchester-square.
- **Orig. Memb.* Simon, John, Esq., F.R.S. (late V.P.), Surgeon to St. Thomas's Hospital, 44, Cumberland-street, Bryanston-square.
- **Orig. Memb.* Smith, Ebenezer Pye, Esq., 7, Billiter-square.
- 1854-55 Smith, Edward, M.D., F.R.S., Assistant Physician to the Hospital for Consumption and Diseases of the Chest, Brompton, 16, Queen Anne-street, Cavendish-square.
- 1846-47 Smith, Protheroe, M.D., Physician to the Hospital for Women, 25, Park-street, Grosvenor-square.
- 1851-52 Smith, W. Tyler, M.D., Physician-Accoucheur to St. Mary's Hospital, 7, Upper Grosvenor-street.
- 1855-56 Smith, Spencer, Esq., Surgeon to St. Mary's Hospital, 48, Sussex-gardens, Hyde-park.
- 1856-57 Smith, Thomas, Esq., St. Bartholomew's Hospital.
- 1854-55 Squire, William, Esq., 6, Orchard-street, Portman-square.
- *1847-48 Solly, Samuel, Esq., F.R.S., Surgeon to St. Thomas's Hospital, 18, St. Helen's-place, Bishopsgate-street.
- 1857-58 Stallard, Joshua Harrison, L.R.C.P., Physician to the Great Northern Hospital, 12, Welbeck-street, Cavendish-square.
- *1850-51 Stanley, Edward, Esq., F.R.S., (late V.P.), Surgeon to St. Bartholomew's Hospital, 23A, Brook-street, Grosvenor-square.
- 1854-55 Stewart, William Edward, Esq., Surgeon to St. Marylebone Provident Dispensary, 12, Weymouth-street, Portland-place.
- †1853-54 Streatfeild, J. F., Esq., Assistant Surgeon to the Royal London Ophthalmic Hospital, Moorfields, 15, Upper Brook-street.
- †1850-51 Sutherland, Alexander John, M.D., F.R.S., Senior Physician to St. Luke's Hospital, 6, Richmond-terrace, Whitehall.

Elected Session

- 1858-59 Swete, Benjamin L., Esq., Surgeon to the British Orphan Asylum, Clapham-rise, 7, Park-road, Stockwell.
- ‡1856-57 Symonds, Frederick, Esq., Surgeon to the Radcliffe Infirmary, 32, Beaumont-street, Oxford.
- Orig. Memb.* Tamplin, R. W., Esq., Surgeon to the Royal Orthopædic Hospital, 33, Old Burlington-street.
- ‡1855-56 Tapp, W. Denning, Esq., Senior Surgeon to the Dorset County Hospital, Dorchester.
- *1850-51 Tatum, Thomas, Esq., Surgeon to St. George's Hospital, 3, George-street, Hanover-square.
- 1851-52 Taylor, Robert, Esq., Surgeon to the Central London Ophthalmic Hospital, 10, George-street, Hanover-square.
- 1848-49 Tebay, Thomas G., Esq., 6, Great Smith-street, Westminster.
- 1852-53 Thompson, Henry, Esq. (Honorary Secretary), Surgeon [to the St. Marylebone Infirmary, and Assistant Surgeon to the University College Hospital, 16, Wimpole-street, Cavendish-square.
- 1856-57 Tomes, J., Esq., F.R.S., Surgeon-Dentist to the Middlesex Hospital, 37, Cavendish-square.
- **Orig. Memb.* Toynbee, Joseph, Esq., F.R.S., Aural Surgeon to St. Mary's Hospital, 18, Savile-row.
- 1851-52 Trotter, John W., Esq., Assistant-Surgeon, Coldstream Guards.
- 1859-60 Truman, Edwin Thomas, Esq., 23, Old Burlington-street.
- 1857-58 Tudor, John, Esq., Surgeon to the Seamen's Hospital-Ship, "Dreadnought."
- *1847-48 Tuke, T. Harrington, M.D., Manor-house, Chiswick.
- 1852-53 Tulloch, James S., M.D., 1, Pembridge-place, Bayswater.
- 1857-58 Turtle, Frederick, Esq., Lamberhurst, Surrey.
- 1856-57 Tyrrell, Walter, Esq., Surgeon to the National Truss Society, 1, St. Helen's Place, Bishopsgate-street.
- 1854-55 Vasey, Charles, Esq., Surgeon-Dentist to St. George's Hospital, 4, Cavendish-place, Cavendish-square.
- 1859-60 Venning, Edgecumbe, Esq., House-Surgeon to St. George's Hospital.
- Orig. Memb.* Waite, Charles D., M.D., Senior Physician to the Westminster General Dispensary, 3, Old Burlington-street.
- 1859-60 Walters, John, M.B., Lond., 14, Old Burlington-street.
- **Orig. Memb.* Walton, Henry Haynes, Esq., Surgeon to the Central London Ophthalmic Hospital, and Surgeon to St. Mary's Hospital, 69, Brook-street, Hanover-square.
- ‡*Orig. Memb.* Ward, Joseph, Esq., Epsom, Surrey.
- **Orig. Memb.* Ward, Nathaniel, Esq. (formerly Honorary Secretary), 1, Broad-street-buildings.
- *1846-47 Ward, T. Ogier, M.D., Ivy Cottage, Winkfield, near Windsor.
- 1857-58 Wardell, John Richard, M.D., 4, Belmont, Tunbridge Wells.
- **Orig. Memb.* Ware, James T., Esq., Consulting Surgeon to the Finsbury Dispensary, 51, Russell-square.
- 1855-56 Watson, Thomas, M.D., F.R.S. (V.P.), Consulting Physician to King's College Hospital, 16, Henrietta Street, Cavendish-square.

Elected Session

- 1854-55 Webb, Francis Cornelius, M.D., 39, Great Coram-street.
- 1857-58 Weber, Hermann, M.D., Physician to the German Hospital, 49, Finsbury-square.
- 1853-54 Wells, Thomas Spencer, Esq., Surgeon to the Samaritan Free Hospital for Women and Children, 3, Upper Grosvenor-street.
- *1850-51 West, Charles, M.D., Physician-Accoucheur to St. Bartholomew's Hospital, and Physician to the Hospital for Sick Children, 61, Wimpole-street, Cavendish-square.
- 1858-59 White, Frederick, Esq., 20, Oxford-terrace, Hyde-park.
- 1856-57 Wilkin, Herbert C., Esq., 39, Connaught-terrace, Hyde-park.
- 1854-55 Wilks, Samuel, M.D. (C.), Assistant Physician and Demonstrator of Morbid Anatomy at Guy's Hospital, 11, St. Thomas's Street, Southwark.
- **Orig. Memb.* Williams, C. J. B., M.D., F.R.S. (formerly President), (V.P.), Consulting Physician to the Hospital for Consumption and Diseases of the Chest, Brompton, 49, Upper Brook-street, Grosvenor-square.
- ‡1858-59 Williams, Charles, Esq., House Surgeon to the Norfolk and Norwich Hospital, Norwich.
- 1859-60 Williamson, George, M.D., Fort Pitt, Chatham.
- 1858-59 Wilson, Edward, M.B., Cheltenham.
- 1859-60 Wilson, Robert James, Esq., 24, Grand Parade, St. Leonards-on-Sea, Sussex.
- *1850-51 Wood, John, Esq., Assistant Surgeon to King's College Hospital, 4, Montague-street, Russell-square.
- 1854-55 Wood, William, M.D., 54, Upper Harley-street.
- 1853-54 Wordsworth, John C., Esq., Assistant Surgeon to the Royal London Ophthalmic Hospital, 50, Queen Anne-street.
- 1859-60 Wotton, William Gordon, Esq., King's Langley, Herts.
- 1852-53 Wright, Edward John Esq., 13, Montague-place, Clapham-road.
- 1858-59 Wynter, H., Esq., Resident Assistant Medical Officer at St. George's Hospital.

LIST OF SPECIMENS

EXHIBITED AT THE MEETINGS OF THE SOCIETY DURING
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REPORT.

SESSION 1859-60.

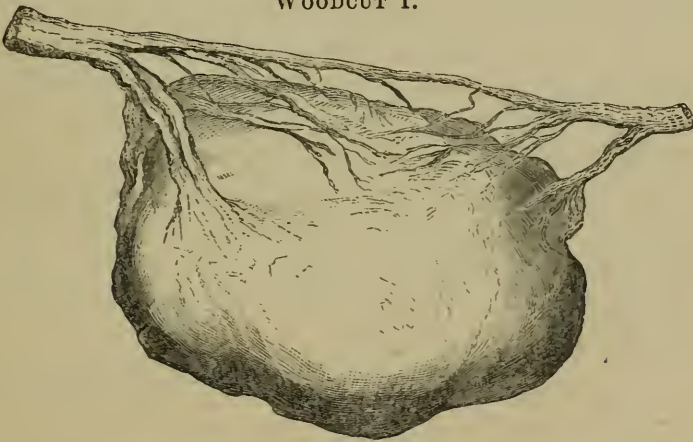
I.—DISEASES, ETC., OF THE NERVOUS SYSTEM.

1. *Neuroma of the musculo-spiral nerve containing a blood-cyst.*

The tumour was removed with the musculo-spiral nerve from the left arm of a lady, æt. 30. It appeared to have been caused by a blow ten years before, and when first noticed, was of about the size of a small nut. Iodine was freely used locally, and for some years it did not materially increase in size, but during the last two years it had grown rapidly.

The swelling was always tender to the touch, but not painful until

WOODCUT 1.



Neuroma after removal of the Fibrous Investment.

within the last few months, when a good deal of throbbing pain and weakness of the forearm came on. At the time of its removal it was of about the size of a billiard ball, and on section, was found to enclose a cyst filled with sero-sanguineous fluid and clots of blood.

The tumour was surrounded by a thin fibrous envelope continuous with the sheath of the nerve, and it seemed to have been chiefly

developed from the upper and outer aspect of the nerve. The trunk of the nerve was split into two portions within the envelope; one portion passed along the margin of the tumour, the other dipped deeply into its substance, and a good deal of it seemed to be lost in its passage through the mass. (See Woodcut 1.)

Microscopical examination showed the tumour to consist chiefly of fibro-cellular tissue, with a great number of small rounded nuclei, and a few oval and oat-shaped ones.

Mr. BUXTON SHILLITOE, 18th of October, 1859.

2. *Tumour of the dura mater (syphilitic?)*.

The tumour was taken from a man who died, *æ*t. 50, from abscess of the brain connected with necrosis of the sphenoid bone, and who had been, during twenty years, the subject of constitutional syphilis. The tumour, about the size of the end of the little finger, was situated near the coronal suture, on the right side, close to the falx.

History.—The most prominent feature in the long history of the case, extending over a period of more than ten years, was a frequent recurrence of periosteal pain, and, *with development of nodes on various parts of the osseous system*; attacks of severe neuralgia happening as an accidental complication.

Previously to the periosteal disease pronouncing itself, the patient's nervous system had shown signs of irritation, or rather of labouring under some morbid influence. The memory was impaired, the gait was unsteady, the pupils were often irregular, the digestion and assimilation were imperfectly performed, the temper became morose, and there was total inaptitude for business or pleasure.

On *post-mortem examination*, the dura mater and the scalp were both, in the vicinity of the tumour, very adherent to the bone. The tumour consisted chiefly of fibro-plastic matter. There was also a second tumour of a similar nature on that portion of the dura mater lining the middle fossa of the base of the skull.

Mr. NUNN, 15th of November, 1859.

3. *Abscess in the middle lobe of the cerebrum in connection with a molluscous tumour in the meatus externus of the ear, and disease of the bone, &c.*

A man, *æ*t. 72, had shooting-pain in the right ear for a year; this was followed by discharge from the ear for two months and a-half, and death after suffering for a month from symptoms of cerebral excitement.

Post-mortem inspection.—An abscess, the size of a pigeon's egg, was found in the middle lobe of the right hemisphere of the brain; and upon

examining the ear, a molluscous tumour, as large as a hazel-nut, was found in the external meatus, extending upwards to the cerebral cavity, and causing an orifice in the bone three-quarters of an inch long, and half-an-inch broad. It extended downwards, producing a cavity half-an-inch deep, below the floor of the meatus. Internally, it pressed upon the surface of the membrana tympani, which had so much receded as to be nearly in contact with the inner wall of the tympanum. Above the membrana tympani it had caused absorption of the osseous meatus, and pressing against the malleus and incus had dislocated them from each other and pressed them against the inner part of the upper wall of the tympanum.

(See Vol. II. of these "Transactions," for an account of a series of specimens showing the effect of molluscous tumours.)

Mr. TOYNBEE, 6th of December, 1859.

4. *Apoplectic clot in a young girl.*

F. B., æt. 14, full habit, frequently suffered from headach; otherwise had enjoyed good health. The catamenia commenced two years ago, and had continued regularly; they made their appearance a fortnight previous to her death. On the evening of the 16th of November, she complained of headach and drowsiness; this continued during the whole of the 17th, but being considered merely a cold, no notice was taken of it by her friends until the morning of the 18th, when they sent for me about eleven A.M. She was then lying in a semi-comatose state, with her hands up to her head, and when roused complained of pain there; she put out her tongue straight, the conjunctivæ were suffused; the pupils acted well. Pulse, 100, small, and rather feeble; there was no paralysis nor stertorous breathing.

A short time after leaving her she attempted to get out of bed, and fell on the floor; well-marked apoplectic symptoms then came on, and she died in a few minutes.

Post-mortem examination, forty-eight hours after death.—The membranes of the brain were congested, also the sinuses of the dura mater; the cerebral substance was pale throughout, but on cutting into the left lateral ventricle a large clot of blood was found, which filled the ventricle, and extended into the substance of the left hemisphere.

J. C. LANGMORE, M.B., 20th of December, 1859.

5. *Spinal arachnitis. Atrophy and softening of the spinal cord.*

The patient had been an out- and in-patient at the London Hospital, about twenty-one years ago; he was then æt. 44; he had been brought up a jeweller, and had been afterwards a policeman. He spontaneously

communicated that he had been early accustomed to excess in venery, and was the father of several children. When first seen, a peculiar form of incipient paraplegic lameness, with contraction, was recognized. No torpid dragging of the limbs, as in the majority of cases of paraplegia, existed; and no rigid constant drawing up of the limbs from contraction of the posterior muscles (flexors), as in many advanced cases; on the contrary, when the patient was seated, volition seemed perfect, and the muscles were entirely relaxed, but as soon as he stood up and attempted to walk, an involuntary contraction of particular muscles occurred, which by causing him to rest upon the *heels* only, the knees being maintained in the condition of rigid extension, necessitated progression with the body inclined stiffly forwards, in order, as it appeared, to guard against falling backwards. In short, owing to the loss of control over the muscles in question, through spastic action occurring as soon as progression was attempted, he was obliged to lean forward to counteract the inevitable tendency to recumbency consequent upon disposition to walk upon the heels, and to resort for safety to the support of two sticks.

The rebellious muscles were in his case the *extensors* of limbs, viz., the anterior muscles of the foot, leg, and thigh. It seemed that the mass of muscles on the inferior and posterior part of the spine and pelvis, the sacro-lumbalis, longissimus dorsi, deep lumbar muscles, and glutæi, were similarly affected. The implication of these muscles was inferred from the attitude of the patient. The upper extremities, sphincters, and intellect, were at that period unaffected.

It was obvious that this case was unlike ordinary spasmodic contractions in the lower limbs, in which the flexor muscles are either solely affected, or predominate over the extensors. Here the contrary obtained; the extensors either predominated, or were solely affected. The only affections in this respect resembling this case, are common chorea, in which it is frequently observed that the child is at times forced to apply *for a moment* the heel only to the ground, and certain cases of talipes calcaneus met with in orthopædic practice, in which the individual limps on the heel. There is the further resemblance in chorea, that the involuntary contraction takes place when the individual endeavours to exercise volition.

He was not again seen alive by Dr. Little, but his friends stated that until debility set in his bodily health had been good; that he had had nausea, but no vomiting; that the hands became affected many years later than the feet; that jerkings of all the limbs had been observed; that he had latterly become round-shouldered through spending so much time in the sitting posture; that he had been liable to paroxysms of hours' duration of excruciating pain in the back, that during the last

nine or ten years of life, the urine had passed involuntarily, the alvine evacuations being so passed three or four years; that there was bloody urine four or five years, and that he ceased to walk one year before death. The intellectual faculties were the last to suffer; he was soporose one week, and comatose forty-eight hours. He sank at the age of sixty-five.

Post-mortem examination.—Body much emaciated, sores over sacrum, left thumb gangrenous from the hand having been rigidly pressed under the left hip, and there saturated with urine. Moderate, 'general' posterior, curvature of cervico-dorsal region ("round shoulders"), small, if any, corresponding incurvation of loins. The lungs, heart, and alimentary viscera were generally healthy. Right kidney fatty, in parts much congested. Suppuration in the pelvis and calyces. Left kidney similarly affected, but less advanced in degeneration. Bladder much thickened, inflamed, and ulcerated.

The brain presented nothing abnormal to the unassisted eye. The medulla oblongata and spinalis were preserved for minuter examination. About four ounces of colourless fluid escaped from the spinal canal and base of cranium.

Examination of the cord and membranes by Dr. Clark.—On examining the cord when extended, and with its membranes laid aside, an impression was conveyed to the mind, that it was considerably diminished in thickness from the cervical to the lumbar swelling. The diameter of the cervical enlargement was 1.5 inches; of middle dorsal region 0.8; of inferior dorsal region 0.7; and of the lumbar enlargement 1.1 inch. The dura mater appeared healthy. The visceral arachnoid from the lower part of the cervical to the middle of the lumbar region exhibited, on its internal surface, a narrow and all but continuous strip of adventitious membrane, which with difficulty could be separated from the cord. In the middle dorsal region, this strip of adventitious membrane, elsewhere confined to the limits of the posterior columns, extended anteriorly among the roots of the nerves which were embraced by it. Upon the anterior surface of the cord there was no thickening or opacity of its membranes.

On passing the finger gently along the cord, it was found to be rather softer in the middle of the dorsal region, and just above the lumbar enlargement, than elsewhere. But these parts exhibited no peculiar difference from other parts when examined by the eye or by the microscope.

Sections were made of the cord at distances of about an inch, alternately through the anterior and posterior halves of the cord. It then appeared that the posterior columns of the cord were softer than usual; of a dirty greyish colour, and of a somewhat gelatinous aspect.

It further appeared that there were minute streaks of a similar kind of morbid change in the substance of the anterior columns.

To determine the nature of this change fine sections were made and examined in various ways with and without special preparation. The results arrived at were the same. The grey gelatinous portions of the cord were found to consist of an extremely fine rectangular fibrous network, in the meshes of which lay much moleculo-granular matter, pigment of various hues, fat globules, and numerous minute irregular-shaped masses of a white structureless coagulated matter, most abundant towards the circumference of the gelatinous transformations. In the midst of these transformations, no nerve tubules, cells, or capillaries, could be recognized. But where the diseased merged into the healthy parts of the cord, these elements, though altered, were recognizable. There the capillaries appeared tortuous, enlarged, and full of blood; the nerve tubules varicose and so dilated at many parts as to have a diameter of about $\frac{1}{500}$ th of an inch, and the nerve cells filled with granules or disintegrated; there, also, the coagulated masses of new matter were in great abundance.

The adventitious membrane connected with the arachnoïd exhibited the characters of areolar tissue without fat. The white fibres were very distinct, collected into intersecting bundles, *associated with elastic fibres of the small variety*, and penetrated, in every direction, by capillaries of unusual magnitude. No cell-forms or relics of cell-forms were recognizable in this adventitious tissue, and there was no evidence of its development through the instrumentality of cells.

The relative density of the altered and unaltered portions of cord could not be obtained with exactitude.

The persistent preponderance of one set of muscles, as in this case in its early stage, if not throughout its long duration, renders probable the existence of an unknown tract in the central organs of the nervous system, on which the physiological and pathological actions of each antagonist set of muscles depend. This case, when first seen, suggested the idea of the disturbance being what is designated as merely functional; but the condition of the spinal cord and membranes justifies the opinion that from an early period disorganizing (inflammatory) mischief of the arachnoïd and medulla existed. It is impossible from the examination of parts diseased throughout a period of twenty years, to determine whether the membranous covering of the cord, or whether the cord itself, was the first affected. Perhaps we may venture to assert that diseased action more often spreads from the organs themselves to their surrounding membranes, than *vice versa*. The purely spastic nature of this case during its early stage, points to an origin of the complaint in the medulla itself, whilst the paroxysms of severe pain during later

years, point rather to arachnitis and its consequences. It is worthy of remark that the principal changes in the arachnoïd were observed on that portion which invested the posterior surface of the medulla. The symptoms towards the close more resembled those of ordinary paraplegia, and are explained by the considerable changes in the medulla itself. The case possesses some interest also, as being one of severe peculiar paraplegia gradually progressing in intensity, and not terminating fatally until after the long period of twenty-one years.

Dr. LITTLE and Dr. ANDREW CLARK, 6th of *March*, 1860.

6. *Bony plates on the arachnoïd of the spinal cord.*

These specimens came from the body of an oldish woman who had suffered for about three years with symptoms of general paralysis. The brain and spinal cord were atrophied, and the latter covered in an extraordinary degree with bony plates. They were situated as usual on the posterior surface, and covered the lumbar and dorsal region, not reaching to the cervical. They formed a kind of shield to the back part of the cord, each piece being about half-an-inch long with intervening spaces between them. They were firmly united to the visceral arachnoïd, so that a blowpipe being inserted beneath the membrane, and air being forced in, they were raised with it; the attached surface was rough and the external smooth. In texture they appeared to the naked eye cartilaginous, but the microscope failed to find any cartilage cells, the composition being for the most part fibrous, with a little osseous tissue here and there in process of development.

It may be remarked, that these plates are remarkably uniform in their position and mode of formation; thus they appear to be always found on the posterior aspect of the cord, and more especially, at its lower part, being more frequently met with in the lumbar region, and if affecting the dorsal, rarely reaching above its superior part. They are attached to the visceral arachnoïd by a rough surface, the external being smooth. Their structure is for the most part fibrous, with a disposition to osseous development; thus, sometimes true bone may be met with, having well-formed lacunæ, canaliculi, &c.; the more correct name, therefore, for these adventitious plates would be fibro-osseous. The tendency being, as is well known, in the cerebro-spinal membranes towards the production of such a tissue.

As regards their pathological importance, it was considered at one time, when the examination of the human body was an exceptional occurrence, that these bony plates denoted a morbid condition, which was associated with various nervous affections, as tetanus, epilepsy, &c.; at a subsequent period, however, an opposite belief has prevailed as

to their unimportance. Our own opinion is, that when existing to a considerable extent, as in the present case, they do denote some chronic change in the cord or membranes, which has produced some tangible results during life; or, at least, they are found most frequently accompanying such chronic changes. Dr. WILKS, 20th of March, 1860.

7. *Circumscribed false aneurysm of the cerebral portion of the left internal carotid artery.*

This preparation was taken from the woman, whose case is related in the last volume of the *Medico-Chirurgical Transactions*, as having died after the left common carotid had been tied for the so-called disease of aneurysm by anastomosis in the orbit. It is now exhibited to show, that the disease is not primarily in the orbit at all, but within the cranium. In this specimen, there is a small circumscribed aneurysm of the carotid artery, just as the ophthalmic branch is given off, which at its origin, is partly surrounded by the coagulum which had escaped from the vessel. This, also, pressed upon the cavernous sinus; hence, probably, the intense congestion and protrusion of all the structures within the orbit.

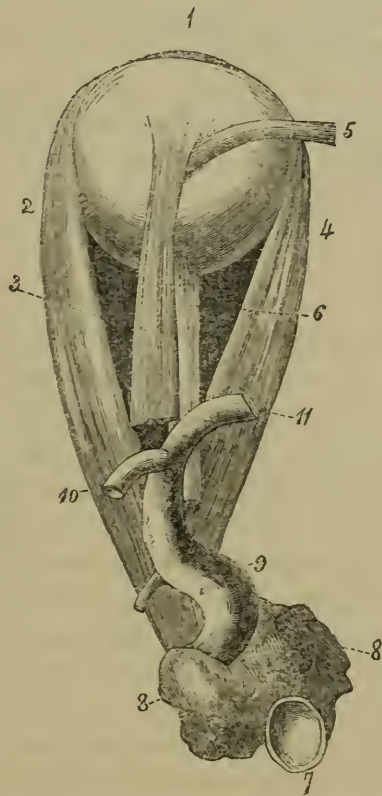
The ophthalmic artery is dilated, and has earthy deposits in its coats as many of the other cerebral branches had.

On tying the carotid artery, the woman immediately became paralyzed on the same side, and convulsed on the opposite side of the body. She died on the sixteenth day after the operation, having had repeated bleedings from the tied vessel, in the distal side of which no coagulum had formed. The brain just above the aneurysm was softened and disorganized.

So far as I know, only one other instance of the examination of the parts concerned in this affection has been recorded, and that, though in other respects different, agrees with the specimen now exhibited in showing, although the orbit during life appears to be the seat of the disease, that in point of fact, the parts within the orbit are only secondarily involved, and that the idea first suggested by the late Mr. Travers, and since so generally entertained, of aneurysm by anastomosis of the vessels within the orbit is altogether erroneous. If these vessels be permanently dilated at all, they are so solely in consequence of pressure upon them, in most cases, if not invariably, behind the orbit, and near to, if not within the cavernous sinus, by which the circulation in the ophthalmic vein and its branches is materially impeded. In the majority of cases, this pressure is caused, either by a small circumscribed aneurysm of the internal carotid by the side of the sella turcica, or of the ophthalmic artery, just at its origin, which may have given way

as in this instance, and as the history of Travers and Dalrymple's cases (vols. 2 and 6, *Medico-Chirurgical Transactions*), would lead to the supposition had occurred in them (rather than as these two excellent surgeons imagined). Or, suppose the pressure results from effused blood escaping from a ruptured vessel, in consequence of external violence, as in the traumatic cases in which Mr. Busk, Mr. Curling, and others in America and France, have tied the carotid artery with success. Nor can I think the case published by Mr. Hulke in the *Ophthalmic Reports* for April, 1859, where Mr. Bowman tied the carotid artery in a woman, for what was supposed, during life, to be an instance of orbital aneurysm (in whom after death none was found), at all invalidates

WOODCUT 2.



The figure represents the left eyeball and ophthalmic artery, with the origin of the latter from the carotid, as seen on dissection, from above and behind.

1. Eyeball; 2. external rectus muscle; 3. superior, and 4. internal straight muscles; 5. tendon of superior oblique muscle; 6. optic nerve; 7. trunk of carotid artery, cut on its emergence from the bony canal into the cranium; 8—8. clot of blood surrounding it and the origin of 9. ophthalmic artery, which was dilated, filled with coagulum, and its coats studded with atheromatous patches, as were two of its branches; 10. the lachrymal; and 11. the continuation of the trunk towards the inner angle of the eye. The other branches were all very small and empty.

this idea—but that on the contrary, it materially supports it. This woman died from repeated hæmorrhage from the ligatured vessel. No aneurysm in either the orbit or the cranium could, on the most careful examination, be discovered. The cavernous, transverse, and superior petrosal sinuses, however, were filled with coagula, doubtless caused by rupture of a blood-vessel, when she was knocked down, five months before, by a violent blow on the temple of the same side, and from which she dated the origin of all her symptoms. Here the pressure of the coagula had at first obstructed the circulation through the ophthalmic vein, the coats of which subsequently, as the coagula softened, had become more actively implicated, and the nerves in the cavernous sinus also involved. These cases show that the true pathological explanation of the appearances in the orbit during life, is to be sought for in pressure upon the nerves and blood-vessels passing through the cavernous sinus, and that this pressure though commonly caused by either true or false aneurysm, is not necessarily, or even invariably so, but that pressure from serous effusion, suppuration, exostosis, tumours, or similar causes may possibly induce it; though in these instances probably other symptoms more directly implicating the brain would be more prominent and important.

Mr. NUNNELEY, 20th of March, 1860.

8. *Large clot of blood in the centre of the pons Varolii, causing symptoms not very unlike opium-poisoning.*

On the night of 21st of last October, Mr. W.—— left his mother, æt. 66, in her usual health, alone, cleaning her house. On his return, in an hour, he found her lying on the floor, insensible, with a large quantity of green bilious matter beside her, which she had vomited. She vomited also after his return. She was carried to bed. She did not move during the night. She had had more than one severe bilious attack, of which she was supposed to be now suffering. The following morning, I saw her. She was lying in an easy position, with the countenance calm and natural, as though in a very deep sleep, breathing regularly, quickly, and naturally. The pupils were both equally and completely contracted; they were insensible to light, and continued so during the whole time she lived. It was impossible to rouse her. Both sides of the body were equally powerless; only on taking a small portion of skin between the nails, and using much force, did she give any sign of perception. In a basin beside the bed was a quantity of green bilious matter, which she had thrown up the previous night. The head was rather warm; other parts of the body natural.

She lived sixty-six hours after the seizure, without any alteration in the symptoms, except the entire surface of the body having become hot.

Post-mortem examination.—On examination of the head, forty-eight hours after death, the scalp was found dry and bloodless. The veins of the dura mater full. The blood-vessels of the pia mater were congested. The cerebrum and cerebellum were firm and healthy, but dark from congestion. In the centre of the pons Varolii, perhaps rather more to the left than the right side, but not showing itself upon either of the surfaces, was a clot of blood filling a broken-down space of the size of half a walnut.

MR. NUNNELEY, 20th of March, 1860.

9. *Hæmorrhage into the pons Varolii. Renal disease.*

W. M., a porter, æt. 42, fell down in an apoplectic fit; was brought immediately to the Hospital, insensible, with stertorous breathing and contracted pupils, and died six hours from the commencement of his attack. It did not appear that he had laboured under any symptoms of illness previously.

Post-mortem examination, fifty-six hours after death.—On examining the brain, the surface of the pons Varolii, and parts immediately adjoining, were found a little blood-stained. The pons and crura cerebri seemed larger than usual; and the former, especially, was soft, and almost fluctuating to the touch. On section, there was found in the substance of these organs a cavity of irregular shape, and altogether about as large as a small walnut, full of recently-coagulated blood. The cavity was of quite recent formation, and its parietes were ragged. There was no further evidence of disease in any part of the brain; and the vessels at the base, with the exception of the trunks of the internal carotids, which were a little rigid, were perfectly healthy.

The heart weighed sixteen ounces; its valves were healthy, its ventricles empty. The pleuræ presented a few old adhesions, and the lungs were congested. The kidneys seemed of usual size, and, together, weighed eight ounces. They were smooth on the surface; but the entire cortex was thickly studded with buff-coloured brawny spots, which were found, on microscopic examination, to be due to copious deposit of exudation-matter, chiefly in the intertubular spaces. The rest of the abdominal viscera were perfectly healthy. Dr. BRISTOWE, 3rd of April, 1860.

10. *Extravasation of blood into, and softening (with fatty and albuminous deposit) of the pons Varolii and medulla oblongata, &c. Cellular tumour in cerebral hemisphere. Insanity. Epilepsy.*

History.—The patient was a woman, æt. 48,—the subject of insanity and epilepsy for, it was thought,—two years, who died in the Somerset Lunatic Asylum. She was admitted into that institution under Dr.

Boyd's care, suffering only from great "drowsiness," which was constant, but from which she could be roused by others. There was no appearance of interference with sensibility or powers of movement, and she took her food well. Shortly after admission, she had two apoplectic attacks, separated from each other by an interval of three days; and subsequently "giddiness" came on, which became so extreme as to oblige her to keep her bed. After being quite comatose for three days, she died (three weeks after admission).

Post-mortem examination.—Spinal column healthy. Spinal cord, which weighed one ounce, healthy. Cranial bones healthy. Cerebral membrane generally healthy, but at one part covering the outer and back portion of the left cerebral hemisphere, the dura mater was found to be lined, to a short extent, by a thick, tough piece of fibrous membrane, by which it was firmly adherent to the surface of the cerebral convolutions beneath.

At this exact spot, a rounded, firm, whitish-red mass was found, of the size of a pigeon's egg, embedded in the brain-structure, and projecting as far as the surface, being in intimate connection with the firm membrane and the dura mater above alluded to. This mass had all the appearance, at first sight, of a mass of strumous material. The brain-tissue beneath and internal to the tumour was much softened, and of a cream-like colour; the septum and inner surface of the lateral ventricles were also softened. There was half-an-ounce of clear fluid in these ventricles. The medulla oblongata and the pons Varolii were, throughout their substance, very much softened, and, on section, presented a vast number of spots of ecchymosed blood. In two parts, the ecchymosis amounted to complete, though small, clots of effused blood, viz., at the upper part, posteriorly, and to the *left* of the median line, approaching completely to the floor of the fourth ventricle, at its posterior part, and also anteriorly, on the *right* side of the median line, at the lower part of the organ.

These organs did not appear to be the seat of any special deposit.

The entire brain weighed forty-five ounces and three-quarters, the right cerebral hemisphere weighing nineteen ounces, the left twenty-one ounces, the cerebellum four ounces and a-half, and the softened pons Varolii and medulla oblongata one ounce and three quarters.

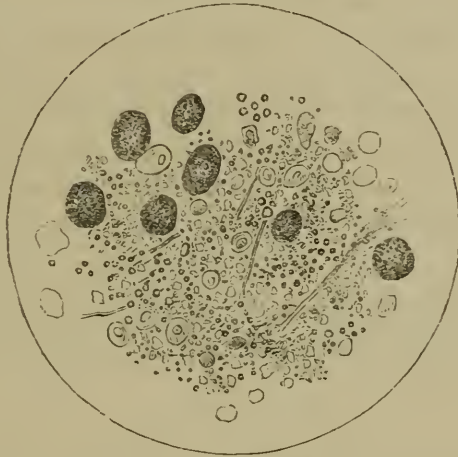
The right lung was in a state of pneumonia as to its middle lobe, and the bronchial mucous membrane was very vascular. Heart healthy.

The various other organs of the body presented nothing unusual.

Microscopical examination showed that the tumour of the brain was more allied to carcinomatous than to strumous growth. I found great numbers of small nucleated cells, with, here and there, larger cells of irregular shape, admixed, along with much granular and amorphous and fatty material.

The softened pons Varolii and medulla oblongata were in many places found to be quite destroyed as to their texture, minute examination showing the presence of much granular and refracting material, along with many fat drops, occasional round, leucocyte-like bodies, and a considerable number of large, round, and oval granular corpuscles, with but little of the ordinary histological elements of the parts. (Woodcut 3.)

WOODCUT 3.



The figure represents the microscopic appearances in a portion of the softened medulla oblongata, showing the albuminous deposit occupying it, which has undergone fatty changes, and also the large dark granular corpuscles contained in the deposit.

Commentary.—In this case, it is certainly difficult to say (dismissing the question as to what connection existed between the idiocy and the cerebral alteration) whether the epileptic symptoms were primarily dependant on the irritating presence of the tumour connected with the brain's surface and the surrounding softening; or to the alterations (softening, ecchymosis, &c.) in the pons Varolii and medulla oblongata. The tumour was, most probably, originally connected with the cerebral membranes, and had, subsequently, invaded and possessed the brain-substance, producing softening in its vicinity: all this might well prove the cause of irritation to the medulla oblongata, and, by reflex action, the source of the epileptic attacks, of two years' standing. But of course the softening and fatty alterations, &c., in the medulla oblongata itself might be the immediate cause of the spasmodic seizures, and the softening of the portions of the brain around the tumour might be the cause of the coma, &c. To attempt to individualize the exact relation between the symptoms in such a case and the organic changes found in various parts of the brain, would be merely a piece of hypothesis. It may be, perhaps, most plausibly conjectured, that the tumour in the neighbourhood of the cerebral membranes acted in an irritative way

upon the medulla oblongata, into which, owing to vascular changes, albuminous effusions (which underwent fatty transformation), and even ecchymosis of blood, took place.* This would lead to epileptic seizures, and the two extravasations of blood might be assigned as the immediate causes of the apoplectic attacks which took place shortly before death. It is worthy of remark, that although the pons Varolii was much disintegrated, yet we have no description of any paralysis of sensory, motor, or vascular nerves previous to the apoplectic attacks and the coma.†

As regards the symptom of "giddiness," that was most likely due to the alteration in the structure of the pons. In connection with this relationship, mention may be made of the giddiness and uncertainty of gait, amounting even to the resemblance of drunkenness, or of poisoning by opium,‡ which is so often met with in rather quickly-developed affections (such as the so-called apoplexy), of the pons Varolii.§

Dr. JOHN OGLE, *3rd of April*, 1860.

P.S.—For the above specimen, I am indebted to the kindness of my friend Dr. Boyd, resident Physician to the Somerset Lunatic Asylum.

II.—DISEASES, ETC., OF THE ORGANS OF RESPIRATION.

1. *Typhoid disease of the larynx.*

This larynx displayed a small slough at the back part, close to the posterior attachment of the vocal cords, and by opening this two small cavities were formed, each capable of holding a pea. The arytenoid cartilage was also exposed.

The preparation came from Henry B., æt. 23, a patient admitted under Dr. Addison into Guy's Hospital, on the 23d of September, 1859.

* In connection with the subject of the relation between the medulla oblongata and the epileptic seizure, see, especially, the works of Marshall Hall; and also the more recent allusions to this disease, in connection with organic and functional changes in the medulla oblongata, in Schroeder Van der Kolk's work on this organ, translated by the Sydenham Society, p. 81.

† A remarkable case of extensive destruction and disease of the pons Varolii, unattended by any alteration in the sensibility or motor power of the limbs, was described by Mr. Gay, in the "Transactions" of this Society, Vol. X., p. 14. In that case, there was an abscess in the pons Varolii of the size of a walnut.

‡ See allusion to this subject, in the description of the interesting case related by Dr. Hare, in Vol VIII. of these "Transactions," p. 35.

§ In most of the cases which I have known about, wherein blood was suddenly extravasated in the pons Varolii, the pupils of the eyes have been preternaturally 'contracted.' In this respect, it is to be regretted that I have not any account of the state of the pupils of the eyes. In the preceding cases, also, marked 8 and 9, and detailed by Mr. Nunneley and Dr. Bristowe, it will be seen that contraction of the pupils attended the hæmorrhage into the pons Varolii.

He had then been ill about seven days, and soon marked symptoms of typhoid fever set in, with rose rash, diarrhœa, &c.; the congestion of the lungs, which was at first considerable, increased, and he died a week afterwards of pneumonia; there being no symptoms especially referrible to the larynx.

Post-mortem examination.—The ileum showed the usual appearances of typhoid disease, though probably these had not yet reached perfection. The lungs were also affected at their posterior parts in the usual way, and some portions also had advanced to consolidation. The larynx contained a small brown slough as above-mentioned.

This specimen corresponded with one exhibited to the Society on a previous occasion,* only that in that case the sloughing process had extended through the larynx, giving rise to a general emphysema. From the occasional occurrence of other instances, as well as from the publication in the medical journals from time to time, of fatal cases of fever, with laryngeal symptoms, there can be little doubt that the larynx is sometimes affected in typhoid fever in the manner described by continental physicians, and as witnessed in the present case; and if this be so the condition is as specific as that affecting the glands in the ileum. Its occurrence is probably exceptional in this country.

Dr. WILKS, 18th of October, 1859.

2. *Emphysema of the lung in connection with Phthisis pulmonalis.*

G. H., æt. 31, a gardener, was admitted into the Hope Ward of St. George's Hospital on the 17th of November, 1858. He had been suffering from cough about three months, with pain on the left side of the chest, and expectoration of thick muco-purulent matter, occasionally streaked with blood. On admission, he was in fair bodily condition; there was tolerable resonance on percussion on both sides of the chest, and there was no visible difference in the mobility or expansion of the two sides; but on the left side, and more especially in its lower half, small bubbling râles replaced the healthy respiratory murmur. On the right side the respiration was free from râles and rhonchi, and was normal in character. The expectoration was scanty, and consisted of stringy and somewhat rusty-coloured mucus. Mustard poultices were applied to the chest, and salines, with tartarized antimony and sedatives, were administered. By degrees the sputa lost their rusty colour and became muco-purulent, but the cough did not decrease; his strength failed rapidly and he began to sweat at night. On the 3rd of December his chest was carefully re-examined. The breathing was apparently tranquil, though quicker than natural. There was great

* "Transactions of Pathological Society," Vol. IX., p. 34.

deficiency of expansion on the left side of the chest, with comparative dulness on percussion over the entire side. At the left apex there was intensely increased vocal resonance, and hollow breathing, with large bubbling sounds, and splashing during cough. Over the whole of the left side the respiration was very deficient, and accompanied by râles. At the right apex there was increased vocal resonance, prolongation of the expiratory sound, and deficiency of breathing; over the remainder of the right part of the chest the breathing was almost normal.

Cod-liver oil and quinine were ordered, but the man's strength failed rapidly; he sweated profusely and expectorated a considerable quantity of purulent matter, mixed, occasionally, with stringy, rusty-coloured mucus. On the 25th, his breathing lost its tranquil character, and became gasping and laboured, and percussion showed the whole of the right side of the chest to be excessively resonant on percussion, and the left completely dull. He was too weak and ill to undergo a stethoscopic examination. Day by day the breathing assumed more and more of a gasping laboured character, the strength failed, and he sank on the 29th instant.

Post-mortem examination.—The body was considerably emaciated; the costal cartilages were much ossified; the heart was somewhat hypertrophied, but not otherwise diseased;—the entire left lung occupied a very small space, being greatly shrunken, and consolidated into a small compact mass by infiltration of crude tubercle, and inflammation and contraction of the lung tissue between the tubercles. It was so solid that it sank in water. It contained a large vomica at its apex, and several small ones scattered throughout its structure. The right lung was excessively emphysematous throughout, but especially towards its anterior margin, and not only pushed over towards the left side of the chest, but protruded, directly the anterior portion of the chest walls were removed. A small vomica occupied its apex, and a few scattered tubercles were found throughout its structure. The liver, kidneys, and other abdominal viscera were healthy.

Remarks.—The case is interesting, both in a pathological and physiological point of view. Pathologically, it illustrates a somewhat rare occurrence, viz., the co-existence of phthisis and emphysema of the lung—each affection being extreme of its kind. Physiologically, it has an important bearing on the question as to the causation of emphysema. The emphysema did not exist on the man's admission into the Hospital, and it was fully developed before his death, or within a period of six weeks. Meanwhile, he was constantly under inspection, and we had daily opportunities of noting any cause which could have led to its production, yet none of the ordinarily assigned causes of emphysema were

observed to exist. There was no violent spasmodic cough, nor were there more than ordinarily forcible expulsive efforts to give rise to it. Expectoration was easy, and the muscular force exerted in coughing was feeble—yet it was during the last ten days of the patient's life, when the muscular power was most feeble, that this emphysema arose—an affection not confined to one portion of the lung, but extended throughout its entire structure. What, then, can have occasioned it? There appears to me only one reasonable interpretation, viz., that the extraordinary and rapid shrinking of the left lung (the lung occupied a very small portion of the left chest), combined with the rigidity of the costal cartilages, which prevented the falling-in of the chest walls, led to forcible and unnatural distention of the right lung to fill up the cavity of the chest. The principle involved is just the same as that which leads to the production of small patches of emphysema on the confines of collapsed lung; but its application on such a large scale, as in the present instance, is by no means common.

Dr. FULLER, 18th of October, 1859.

3. *Necrosis of the laryngeal cartilages.*

M. B., æt. 36, residing in Hoxton, was admitted on the 5th of October, into Guy's Hospital, under the care of Dr. Rees.

She was a married woman, and had born three healthy children, and although never strong, had had tolerably good health. She attributed her illness to a cold caught some two months before admission; it was accompanied with cough and hoarseness, which gradually increased, and four months ago she completely lost her voice, which never returned; difficulty in swallowing soon appeared, and this gradually increased. No history of syphilis could be obtained.

When admitted she was much emaciated, and her powers were very feeble; it was with much difficulty that she could be understood, as she spoke only in a harsh unintelligible whisper. Any attempt to swallow caused great pain, and was frequently followed by sickness; she was excessively particular in her food, her stomach refusing almost everything.

The larynx was much thickened, with the cellular tissue external to it; and beneath the thyroid cartilage there was an unhealthy-looking ulcer.

Her cough was most severe, and she expectorated a fetid purulent secretion; for two weeks treatment was employed but without any decided benefit, and, on the 18th of October, when the difficulty in deglutition and of respiration had become much greater, threatening death, Dr. Rees called upon me to perform tracheotomy, which was done with marked relief; she passed a good night, took food in a liquid shape with less difficulty, and was altogether much relieved. For a

few days she appeared to be doing well, but soon her disgust to all food returned, and she was unable to take sufficient nourishment; consequently her powers gradually gave way, and she sank on the 29th of October, eleven days after the operation.

Post-mortem examination.—The epiglottis and vocal cords were very œdematous, and upon the latter, was a large sloughing ulcer; the cricoid and arytenoid cartilages were completely ossified and necrosed, being surrounded with sloughing cellular tissue.

In the lung, also, was a sloughing abscess. It was a question in this case as to the cause of the disease, whether the necrosed cartilages were the result of inflammation set up around them? or whether the ossification, and consequently, degeneration of the cartilages, was not the primary disease, and their subsequent death the cause of the suppuration in the soft parts, the mucous cartilages acting as foreign bodies? The latter opinion appears to be the most probable.

Mr. THOMAS BRYANT, 1st of November, 1859.

4. *Fibroid deposits in the muscular and cellular tissues connected with the larynx.*

The following case is interesting as furnishing an example of death from such a deposit, in the small muscles of the larynx, as is not infrequently met with in the heart, constituting the so-called fibroid degeneration of that organ; and, as is sometimes seen (especially in the later stages of syphilitic disease), in the voluntary muscles of different parts of the body. There can be no doubt that the kind of deposit here spoken of, is an occasional accompaniment, and result of the secondary syphilitic cachexia; but it is equally true, I think, that it may also originate quite independently of that condition.

E. D., æt. 46, a married woman, and the mother of fifteen children, was admitted into St. Thomas's Hospital, on the 9th of March, 1858. It appeared that she had been ill for thirteen weeks. She was first attacked, without obvious cause, with oppression of the chest, and difficulty of breathing; but had no cough or other unhealthy symptom. She had always previously enjoyed good health. The catamenia had been regular and very abundant.

On admission, she complained of nothing beyond the steadily increasing difficulty of breathing. The inspiration was attended by a loud ringing whoop, which disappeared, however, when she was speaking. The appearance was calm, the pulse quiet, the complexion healthy. The condition of the thoracic viscera, so far as could be ascertained, was normal. She continued in this state until the morning of the 11th, when she became rather suddenly faint; and died, according to the sister's account, in this condition.

Post-mortem examination.—The body was tall and well-nourished. Pericardium and heart healthy. The latter was contracted. Its ventricles contained a trace only of semi-fluid blood, its right auricle a dark-coloured coagulum of moderate size. Pleuræ healthy. Lungs much inflated, but not emphysematous; crepitant throughout. Bronchial tubes healthy, but containing more mucus than natural.

On removing the larynx, but before laying it open, its upper part (that above the vocal cords) appeared tolerably healthy. There was perhaps a little œdema of the aryteno-epiglottidean folds, and the face of the epiglottis presented a number of circular depressions, which might possibly have been the cicatrices of excoriations; yet its margin was perfect, and the mucous membrane unthickened. From the same point of view, also, the vocal cords appeared to be completely parallel and in contact. On laying open the larynx and trachea, it was observed that the mucous membrane of the former, for quite half-an-inch below the vocal cords, instead of being concave, and forming the walls of a hollow cylinder, had become bulged out on each side, so as to form two perfectly flat vertical walls; which in the natural condition of parts were in contact with one another, but sloped off gradually below, into the normally circumstanced mucous membrane of the trachea. The flattening of the surfaces had evidently been produced by mutual pressure; and in those parts where the pressure had been greatest, the surfaces were rendered opaque, and presented two or three small roundish or oval excoriations. On applying pressure with the finger, it was distinctly ascertained, that the protrusion of the mucous membrane was due to the presence of some softish elastic substance beneath it; and on vertical section, a small mass of material, in part opaque buff-coloured, tough and fibrinous, in part softish and somewhat flesh-coloured, and in part distinctly vascular, was found seated on the upper border of the cricoïd, without involving it, and extending into the muscular and cellular tissues around. This deposit touched neither the posterior nor the anterior parts of the cricoïd; but was symmetrically disposed in connection with each of its lateral portions; and formed protrusions about equal in degree, both inwards towards the canal of the larynx, and outwardly towards the thyroid cartilage. Although moulded on the cartilage, it appeared to be developed essentially in the muscular and cellular tissues, and in several places the muscular fibres were distinctly continuous with it. The deposit yielded no juice, and presented all the characters usually manifested by the fibrinous formations seen in the muscular substance of the heart. The trachea was healthy, but contained a considerable amount of mucus.

The minute structure of the growth presented slight varieties of character in different parts. In some it exhibited cut-vessels and portions of white fibrous tissue, which were evidently the remains of the

original structures; but mixed with them, and masking them to some extent, was a quantity of recently-effused refractive fibrinous deposit. In other places, it presented a fibrillated structure intermixed with numbers of small nuclear bodies extremely difficult of isolation. In all situations were the remains, more or less abundant, of muscular fibres—these being for the most part somewhat smaller, and more transparent than usual, generally minutely granular, but never striated.

The brain was a little congested, but otherwise healthy.

All the abdominal viscera were in a sound condition.

Dr. BRISTOWE, 6th of December, 1859.

5. *Specimen of warty growth on the chordæ vocales. Tracheotomy.*

The specimen was taken from a male child, æt. 4 years, who had suffered for a year or so from loss of voice, and occasional spasmodic cough, and dyspnœa, increasing latterly to an alarming extent, and giving rise to great lividity of countenance, blueness of the finger and toe nails, and other decided evidences of greatly impeded respiration.

Tracheotomy was at length performed under the pressure of very alarming symptoms. During the first ten days after the operation the child was remarkably relieved, but was then suddenly attacked with hæmorrhage from the wound and through the tube, and died before assistance could be rendered.

On *post-mortem examination*, it was found that the innominate artery lay unusually high upon the trachea, and that the friction of the tracheotomy tube in respiration had caused an ulceration downward, reaching at length the coats of the artery, into which a small opening had formed, causing the fatal hæmorrhage.

The heart and great vessels, lungs, trachea, and larynx were exhibited. Upon the chordæ vocales, filling up the ventricles of the larynx, and almost completely occluding the rima glottidis, were a number of warty growths. Under the microscope, these were found to consist of epithelial cells, rather larger in size than the ordinary ones of the adjacent mucous membrane, and arranged upon each other in a branching or foliated form. The basis of the warty growths were connected with the upper surface of the chordæ vocales, near the attached border. The opening into the innominate artery was placed at the upper part of the deep surface, where it rested upon the trachea, at a little distance above the crossing of the left brachio-cephalic vein. Considerable evidences of inflammatory action were apparent in the larger bronchi on both sides.

Mr. JOHN WOOD, 17th of January, 1860.

6. *Phthisis co-existent with emphysema of the lungs and central limited empyema. Death by hæmoptysis.*

This specimen showed limited disease in each apex, the left having three small cavities and a few scattered miliary tubercles, and the right a single cavity of the size of a walnut, filled with coagulated blood. This appeared to have been the source of hæmorrhage that proved fatal; the surrounding tissue being remarkably free from condensation, and the lung tissue in close proximity to the walls of the cavity being crepitant. At the base of the right lung was an irregular abscess, the walls of which were formed by the corresponding pulmonary and costal pleuræ, constituting in fact a limited empyema. The edges of both right and left lungs were extensively emphysematous.

Dr. RISDON BENNETT, 17th of January, 1860.

7. *Œdema of the glottis.*

The patient from whom this preparation was taken was a man, æt. 51, who was hall-porter at a large house in Belgrave Square. He had enjoyed good health for many years, but had had an attack of syphilis a long while ago. He had gone to bed in his usual health, as both himself and his wife affirmed, on the previous evening, but woke up with extreme dyspnœa at four o'clock in the morning. He was brought to St. George's Hospital about noon on the same day, the 17th of September. He was then breathing with visible distress and effort, and with a loud hissing sound. The face and lips were pallid, and covered with cold perspiration. An emetic was administered, but gave no relief, and as he was getting worse, and appeared dying, Mr. Hewett performed laryngotomy. There was some difficulty in getting through the cricoïd cartilage, on account of its being partly ossified. The operation afforded much relief to the breathing, though he still pointed to the larynx as the seat of some uneasiness. He was put upon a course of calomel, and freely supplied with wine. Next morning he was found asleep, breathing tranquilly and regularly through the tube. He sank rapidly during the morning, and died, without any apparent dyspnœa, about noon.

On *post-mortem examination*, the breadth of the neck, at the upper part, was found to be considerably increased, and the muscles were brawny and infiltrated with lymph. The glands also were somewhat enlarged. The preparation exhibited showed the velum palati thickened from effusion, and similar thickening of all the parts, both of the larynx and pharynx, as low as the upper margin of the glottis. This thicken-

ing was more especially marked in the right arytaeno-epiglottidean fold. The margins of the glottis itself were also somewhat thickened, but no œdema existed below the true vocal cords, nor was there any distinct evidence of inflammation, or even congestion. The cartilages of the larynx were ossified, and the incision ran through a dense mass of bone in the cricoïd cartilage.

The lungs and heart in this case were found healthy. The kidneys were both diseased, although not very extensively, the left containing a large mass of old strumous tubercle (quiescent), while on the right side the ureter had been obstructed by a small growth from the mucous membrane of the bladder at its mouth, which had caused considerable dilatation, extending to the pelvis of the kidney.

This was the third case of the kind which had occurred at St. George's Hospital in the course of a very short time. All three patients were men in the prime of life, and all were perhaps more than usually exposed to draughts of cold air; the patient whose case is above detailed being a hall-porter, the second a baker, and the third a coachman. In none had the attack been preceded by any marked symptoms; indeed, only in the case of the coachman, by any symptoms at all, he having complained of slight cold and stiff-neck after returning from his work the previous day. All the cases were characterized by fits of spasmodic dyspnœa, varying remarkably, and intermitting in the two latter with intervals of almost complete ease. On this account tracheotomy was only performed in the two latter cases when the patient was dying; indeed, in the third case, he appeared to be dead; and in that, as in the subject of the present preparation, the operation was rendered difficult by ossifications of the laryngeal cartilages. Thus, the present series of cases affords little information as to the value of laryngotomy in this disease. The operation certainly prolonged life in the only one in whom it was fairly tried, and the patient died of asthenia only. Whether in the other two cases the patients would not have had a better chance if the larynx had been opened as soon as the formidable nature of the spasmodic dyspnœa had once been fairly established, may reasonably be doubted. Still at the time when the surgeons were asked to consult on the matter, the patients were breathing so quietly and naturally that it was hard to recommend an operation which might be altogether superfluous. It would probably be better in such cases in future, to open the larynx during the first fit of dyspnœa, and to trust for the subsequent treatment of the disease to a supply of warm moist air, and stimulants in small and frequent doses. It is quite unnecessary to operate lower than the crico-thyroid interval, as the œdema in every case is bounded by the true vocal cord below, a fact which Mr. Prescott Hewett has pointed out. The frequent occurrence, however, of ossification in this region

ought to be remembered; and the surgeon, when operating on adults, should be prepared for this complication.

Mr. T. HOLMES, 21st of February, 1860.

8. *Fibrinous casts from the bronchial tubes.*

The fibrinous tubes exhibited were expectorated by a young man, æt. 16. When seen, he was suffering from great difficulty of breathing, with livid, swollen countenance, rapid pulse, and dulness over the greater part of the chest, with hardly any respiratory sounds. After a few days he recovered, having expectorated the fibrinous casts now produced, with a great deal more broken into fragments. I had seen him during the preceding few months in a similar attack, and then feared he would have died; and was told by his mother, that he had had other attacks while in Newcastle, before coming to Leeds, the illness always coming on suddenly, and that in all attacks he had expectorated hard white cords, sometimes, in small pieces, at others in large branched portions, after which he soon got well; she had always thrown away the expectorated portions. He quite recovered, and left the town, but I subsequently heard that he died from a similar attack a few months after I saw him.

In Vol. IX. of the Society's "Transactions," is an account (with figures, Plate III.) of casts of the bronchial tubes, and in Vol. X. is a report by Dr. Peacock of the post-mortem examination of the lungs of the man, by whom they were expectorated, with the symptoms exhibited during the last few months of his life: in that case the lungs, particularly the left one, were voluminous, with anfractuous cavities in the upper portion, and solidification from the deposition of several large masses of a whitish-yellow coloured substance, resembling medullary sarcoma in the lower portion; but in this patient I apprehend nothing of the kind was present, for though I lost sight of him before his death (which I have only heard of by report), I saw him during the interval between the two attacks in which I attended him. During this interval, there was no evidence of any serious disease of the lungs. He worked as a mechanic without difficulty, and my impression was that the affection was one of the bronchial, and not of the cellular tissues of the lungs.

Mr. NUNNELEY, 20th of March, 1860.

9. *Portions of fibrinous casts from the larger and smaller bronchial tubes.*

These bodies, which were moulds of the bronchial tubes, were spat up during coughing, by a man who had been ill a year, and who had

been every few days spitting up similar fragments, which were likened by the patient to "pipes of macaroni," having the appearance of a mould of the bronchial tubes down to their minutest ramification.* Almost every kind of remedy had been prescribed; cupping between the shoulders, and the use of the ammoniacum mixture gave much relief, *but the chief benefit was derived from the use of inhalation of the vapour of water containing liquid pitch, in the proportion of three drachms to the pint.* This inhalation was used three or four times daily, under the direction of Dr. Seymour.

In St. George's Hospital is another specimen, consisting of the same kind of moulds which were expectorated along with much thick mucus; but no history of this second case exists.†

On *microscopical examination* of these fibrous casts after maceration in spirit and water for some years, the following observations were made. The smaller tubes were seen to consist of (1) many delicate fibres (2), much clear granular matter, partly highly refractive, also (3), occasional largish opaque bodies of an oval shape, with (4) many smaller, rather indistinct bodies, probably of a cell nature. The larger and thicker portions of the casts contained but very few cells or rounded bodies, but numbers of strong fibres mixed with firm granular matter, and decidedly fatty material, and also opaque yellowish amorphous matter mixed with other elements like altered epithelium; no distinct and natural epithelial bodies were, however, anywhere visible. The same microscopical appearances were observed in the additional specimen alluded to, as being in St. George's Hospital, but bearing no history.

Remarks.—The above-described specimen is similar, in many respects, to some of those of the kind brought before this Society on various occasions. From the history it would appear, that there was no disease of the lung tissue, but only of the bronchial tubes, but unfortunately, I have no history of the physical signs. I have only specially to remark upon the mode of cure, which was so very interesting, and at the present time, so unusual. Observations on the use of the vapour of tar, although prepared in a manner different to that above-described, may be consulted in *Pereira's Materia Medica*, where special allusion is made to Sir Alexander Crichton's work (1823) on its use in phthisis.

In the case which I have adduced, I suppose its action was simply that of a local stimulant, the vapour containing much pungent volatile material, pyroligneous and acetic acid, &c.

Dr. JOHN OGLE, 17th of April, 1860.

* Preparation now in St. George's Hospital Pathological Museum. See new Catalogue, No. 3 d, Sub-series vi., Series 15.

† See Catalogue, No. 4 d.

10. *On some of the more uncommon features presented by cancer of the Lungs.*

Out of thirty-two cases of cancer of the lung, which it has fallen to my lot to examine and elsewhere record, the following have been selected for the purpose of illustrating some of the rarer, or perhaps rather less accurately described, modes in which cancer affects this organ. It is well known, that the lung is the frequent seat of the secondary manifestations of this disease, that it is generally more or less distinctly implicated by, the far from uncommon, mediastinal tumours, and that, it is occasionally, also attacked primarily by cancer; it is well known, too, that its cancerous formations may present all varieties between the densest scirrhous and the softest encephaloid, that they may form tumours from the size of the lung itself, down to the smallest miliary granulations, that they may degenerate in various degrees and ways, and simulate tubercular and inflammatory deposits, both in the formation of vomicae, and in other important features which I need not now specify. As it is not, however, to any one of these points that I wish to direct attention, I will at once dismiss them, and proceed to the immediate objects of my present communication.

(A.) *Cancer of the pleural investment of the lung* (Cases 1, 2, 3, 4).—Cancer of this tissue, whether scirrhous or encephaloid, generally makes its appearance under the form of lenticular patches, from about one-third of an inch to a line in diameter, and from the thickness of cardboard downwards. They are scattered indifferently, and more or less irregularly over the surface, some being perfectly discrete, others clustered, others more or less confluent, and in some instances, so completely blended as to form sinuous patches of considerable extent, and nearly uniform thickness. They arise distinctly in the substance of the serous and subserous tissue, projecting little externally, and only at a late period (and then rarely to any extent), invading the subjacent lung structure. There are variations, however, in all the characters just assigned. Thus, in some cases, the patches are larger than accords with the above description; they may attain as much as an inch in diameter, with a proportionate thickness; or the cancerous deposit (and especially when it is directly prolonged from a mediastinal tumour), may form a uniform continuous layer. Again, the patches may so far diverge from the lenticular form as to be thickest at the edges; and in consequence of this character, conjoined with extreme thinness, accurate roundness, and uniformity of size, may (as in the case 1) produce a close resemblance to psoriasis guttata. Occasionally, too, the cancer may form outgrowths from

the pleural surfaces, either in the form of small sub-globular pedunculated bodies, or of nodulated masses, generally from the size of a filbert downwards, but in rare instances, assuming yet larger dimensions than this. Lastly, the cancer may involve, by continuity, the lung substance beneath, to the extent of forming considerable pulmonary tumours.

Each of the above variations, however, is not so much an accidental peculiarity, occurring here and there in otherwise typical cases, as it is the characteristic and prevailing feature of occasional varieties of the disease. Most of them belong to the encephaloïd form of cancer, and some, I have reason to believe, have an intimate connection with manifest peculiarities of ultimate structure. For example, I have more than once observed, that in those cases in which the growths on serous surfaces were pedunculated, the cells so far departed from the usual minute-nuclear character of encephaloïd, as to be unusually large, irregular, and elongated, and to contain nuclei of remarkable shape and size.

(B.) *Cancer of the interlobular septa* (Cases 1-4).—Closely connected with cancer of the pleural covering of the lung, is cancerous infiltration extending along the continuous and somewhat analogous tissue, constituting the partitions between adjoining lobules. This may be easily overlooked, and doubtless exists, therefore, much more frequently than it is observed. I have always seen it associated with cancer of the pleura, and generally prolonged therefrom perpendicularly inwards. In some instances, I have observed it limited to the septa adjoining the surface, but once or twice have recognized it extending far into the interior of the lung, dividing the organ into a series of largish irregular polygons. In all cases, the growth has presented the characters of cancer in other parts of the body; has formed continuous plates, little, if at all, thicker than cardboard, and occasionally, as in cancer of the pleuræ, has invaded the substance of the contiguous lobules.

(c.) *Cancer of the bronchial tubes* (Cases 1, 2, 3).—The bronchial tubes are not a very infrequent site of malignant deposit; but the disease in them seems always due to direct extension from cancerous growths occupying the mediastina, bronchial glands, or other neighbouring tissues. As a consequence of this, the tubes most commonly affected are the bronchi, with their primary divisions; and the disease most commonly extends continuously over a definite tract. Sometimes, however, the greater number of tubes of both lungs are involved, not necessarily continuously, but, it may be, in successive lengths, separated by intervals of healthy tissue. The disease seems generally to affect, in

the first instance, the exterior of the tubes; next, as in gastric cancer, to invade the substance of the walls; and, finally, to involve the mucous membrane, along which it may then extend almost indefinitely. Its deeper boundary is ill-defined, and sometimes spreads into the surrounding lung tissue; its superficial aspect is sometimes smooth, sometimes plicated, sometimes granular or nodulated; and, in consequence of the thickening of the mucous and sub-mucous tissues, the calibre of the affected tubes becomes more or less seriously diminished. Even when the amount of deposit is small and uniform, the nature of the affection may be easily recognized, not only microscopically, but also by the peculiar pearliness and opacity which it gives to the mucous membrane. Ulceration occasionally takes place; and sometimes the growth spreads like a polypus along the bronchial tubes, forming casts, which may become detached and expectorated. (See page 65, Vol. X., "Path. Trans.") The cartilages continue healthy up to the last.

(D.) *Cancer of the bronchial vessels* (Case 5).—Under the same circumstances as the tubes, and generally along with them, the vessels of the lungs may become engaged in the progress of malignant disease; the veins being, for obvious reasons, seriously implicated more frequently than the arteries. The cancerous growth appears first to surround the vessels, then to compress them somewhat, and, finally, to infiltrate the entire thickness of their walls. The pressure upon the vessels may occasionally be so extreme as of itself to render them impervious; but more frequently, before this event can take place, they have become obstructed by adherent fibrinous clots. The cancerous growth, however, besides involving the entire thickness of the parietes, may invade the fibrinous coagulum occupying the canal; but, under other circumstances, rarely forms outgrowths into the interior of the vessels. Occasionally, however, it forms nodular or pedunculated excrescences; and, in one instance, I discovered, in connection with cancer of the lung, two largish pedunculated masses of cancer growing from the lining membrane of the otherwise healthy trunk of one of the pulmonary veins.

(E.) *Contraction and cupping arising in connection with cancer of the lung*.—The cause (namely, degeneration and contraction of the central portions of the tumours), which produces the characteristic cupped appearance of hepatic cancer, must frequently be in operation in the cancers of other organs; yet in other organs the same result is seldom observable. The case numbered 4, furnishes an illustration of its occasional occurrence in cancer of the lung. Case 6 presents what is doubtless an analogous, though apparently, at first sight, very dissimilar condition. There was, in truth, no actual cupped appearance present; but there

was marked degeneration and contraction of the central parts of the various cancerous growths; and the effects thereof on the lung were such, that the surface of the organ was fissured and seamed in all directions, so as to furnish a considerable resemblance to that of a hob-nailed liver, and to exhibit almost a caricature of the appearance resulting from obsolescent pulmonary tubercle.

CASE 1.—*Cancer of stomach and Glisson's capsule. Secondary cancer of pleuræ and lungs, chiefly, in the latter instance, affecting the interlobular septa and bronchial tubes.*

W. H., a gardener, æt. 66, was admitted 16th of June, 1859. He stated that he had suffered from chronic cough for many years, but had otherwise enjoyed good health until six weeks ago. At that time he began to complain of epigastric pain, increased after food, and accompanied by great distention at the cardia. These symptoms quickly increased, his appetite became bad, and he rapidly lost flesh. Vomiting came on the day before admission. There had been no febrile symptoms, the urine had been normal, and the bowels regular.

On coming in, his aspect was decidedly anæmic, and rather cachectic. The tongue was red, raw, and furred in patches; pulse small and quiet. The most notable symptom, beyond those stated above, was the presence of several small tumours in the substance of the abdominal walls, one of which had been in existence forty years, but had grown rapidly during the last three weeks. The others appeared to be quite recent.

After admission the symptoms were at first those of rapid emaciation with irritable stomach, and some constipation. About the 10th of July slight sallowness appeared; soon distinct jaundice came on, attended by great increase of vomiting; and he died exhausted on the 24th.

Post-mortem examination.—Extremely emaciated, deeply jaundiced. The pleuræ were free from adhesions, and their parietal portions generally healthy. The diaphragmatic surface of each, however, was studded, here and there, with lenticular patches of white cancer; and a group of similar formations were seated over the centre of the left seventh rib, which was itself, in this situation, partly destroyed by cancerous infiltration. The lungs were large, heavy, and presented a very remarkable appearance. The general surface was congested, but thickly and uniformly covered by what looked, at first sight, like a leprous eruption. This consisted of flat whitish circular patches, from half-an-inch in diameter downwards, which had coalesced in many places, so as to form sinuous bands and patches of various extent. The

patches were so flat and little elevated as scarcely to be perceptible to the touch; and were generally indicated solely by their opacity and tint. The edges were often a little better defined than the central portion. On cutting into the lungs, they were found generally, but sparsely crepitant. On close examination, they were ascertained to be studded pretty thickly with cancerous material, which, however, was variously and somewhat peculiarly arranged, as follows:—

1. In many parts, but by no means uniformly, this existed under the form of scirrhus infiltration running along the bronchial tubes and vessels of the lung; surrounding them in the first instance, then incorporating their parietes, and, finally, encroaching on and diminishing their calibre, though in no case distinctly obliterating them. The larger trunks were generally unaffected, or affected only in an early stage. The tertiary and subsequent divisions were those most obviously diseased. Constrictions arising in the manner indicated were discovered in both arteries and veins, but no nodulated or papillary growths into their channels. In those tubes in which the disease was most marked the mucous membrane was opaque, thick, and wrinkled.

2. Numerous very distinct but thin bands (from half-a-line in thickness downwards) of scirrhus were found intersecting the lung tissue in various directions. By tracing and examining them, it was rendered obvious that they were the result of cancerous growth along the septa, separating lobules from one another; and that they were, therefore, of the same nature as, and had originated in similar tissues to, the patches upon the surface of the lung.

3. Besides the above, were numerous spots, from the size of a lobule downwards, in which the tissue of the lung was more or less solid and infiltrated with malignant growth. But it seemed clear that all these were secondary to the formations previously described, and due, as it were, to their out-growth into neighbouring tissues. Many of them were subjacent to the superficial patches, and had obviously sprung from them. The relations of those seated in the substance of the lung were necessarily less distinct, but there was sufficient reason to regard them as having a similar dependence on the more central scirrhus tracts.

A few of the bronchial glands were the seat of scirrhus infiltration.

There was extensive ulcerated scirrhus of the stomach, with peritoneal cancer extending along the capsule of Glisson into the liver, and causing obstruction of the bile ducts; but all other organs, as well thoracic as abdominal, were healthy.

CASE 2.—*Cancer of stomach.—Secondary disease of pleuræ, bronchial tubes, and bronchial glands.*

E. H., æt. 42, a married woman, with four children, was admitted on the 7th of December, 1858. She stated that she had been ill for four months only, and with symptoms, gradually increasing in intensity, characteristic of cancer of the cardiac orifice. On admission she was extremely emaciated; suffered much pain and some tenderness in the epigastric region; vomited constantly, and immediately after everything she swallowed; and was much constipated. No tumour could be felt; and she had no pulmonary symptoms. She died exhausted on the 25th of the following January.

Post-mortem examination.—The stomach was much reduced in size, and infiltrated with cancer in nearly its whole extent. The disease, however, was most advanced in the cardiac half, and there it was ulcerated. The cardiac orifice was involved and constricted; and the disease had extended also along the lower three or four inches of the œsophagus. The liver, spleen, and pancreas were adherent to the stomach; and the pancreas, with the neighbouring lymphatic glands, was the seat of cancerous deposit.

The pleuræ presented very few old adhesions, and contained no serum. The surface of the right lung, and more especially, that of the lower lobe, was here and there puckered, and presented a considerable number of opaque white spots. These were irregularly circular, faded off insensibly at the margins, varied from one-sixth of an inch to half-a-line in diameter, and were scarcely elevated above the general pleural surface. Most of them were discrete, but some were confluent. On section, they were found to occupy the substance of the serous membrane, rarely encroaching on the subjacent lung-structure, and generally ranging in thickness from that of a piece of thin cardboard downwards. The lung was of ordinary size, and generally crepitant; but presented much black pigmentary deposit, and numerous hard lumps thickly scattered throughout its substance. At first sight, the latter were mistaken for clustered miliary tubercles, but on careful examination, a close connection between them and the cut-tubes was apparent. The bronchial tubes were, therefore, carefully traced. The right bronchus itself was healthy, and so, also, were some of its primary divisions; but many of the other tubes throughout the lung were in an unhealthy condition—this unhealthiness not usually occupying their entire extent, but being limited to lengths of one or two inches or more, alternating with tracts of healthy tissue. In the affected parts, the mucous membrane instead of being thin and transparent, was thick, white, of a slight degree of translucency (yet sufficiently opaque to conceal the cartilages and other

subjacent tissues), pretty smooth on the surface, and so dense and hard in texture as to give to the lung the hardness and lumpiness before alluded to. The diseased portions of tubes were always reduced in calibre and sometimes considerably so. In some instances, the mucous membrane alone was affected, in most, however, the entire thickness of the coats was involved, and not infrequently, the hardening extended from the tubes for some little distance into the surrounding lung-structure. On close inspection the material producing the hardening presented a greyish-white aspect, and was found to look, feel, and cut exactly like scirrhus. From its position it was clear that its primary seat had been the bronchial tubes, and that its extension to surrounding tissues was merely secondary. The smaller hard masses—those most resembling miliary tubercles—were found to be also due to, scirrhus infiltration of the minute bronchial tubes, and were, therefore, essentially dendritic in form, and presented in their axes still patent channels. The bronchial glands were converted into scirrhus tumours, from the size of a small chesnut downwards. The left pleura and lung were in precisely the same condition as the right. Larynx and trachea, pericardium and heart healthy. The pleural cancer was made up almost entirely of cells, generally circular, and varying in diameter from that of a pus-cell to twice that size. They were for, the most part, thick and refractive on one side (in this situation often presenting a nucleus), but thin and somewhat imperfect on the other. Their contents were either pellucid or slightly granular; but occasionally they were wholly filled by a large and distinct nucleus. The cells reminded one somewhat of the peculiar crescentic cells of the spleen. Besides these there were many small refractive globules, which seemed solid, and were probably the early stage of the more distinct cells.

The diseased portions of bronchial tubes consisted almost entirely of cells like those just described, occupying the meshes of delicate elastic tissue, and the intervals between the other bronchial tissues.

CASE 3.—*Cancer of mediastinum extending to right lung, and involving the lower part of the trachea, and some of the bronchial tubes.*

J. C., æt. 68, was admitted on the 3d of August, 1858. He had been ill between two and three months, with gradually increasing cough, expectoration, and difficulty of breathing. During the last two months his neck, head, and arms, had become œdematous. All the above symptoms were present in a marked degree at the time of admission. A distinct tumour was felt deep in the neck above the left clavicle. The right side of the chest was dull on percussion; respiratory sounds

were almost completely absent from this side, excepting at the apex, where they were distinctly tubular. He died on the 14th.

Post-mortem examination.—Death was found to have been due to the formation of a large encephaloïd tumour in the anterior mediastinum, prolonged by the involvement of lymphatic glands into the left side of the neck. The right lung was universally attached by adhesions, infiltrated to some degree with cancerous deposit. The lung was airless, from collapse, in the greater part of its extent; but the upper lobes were partly in a state of hepatization, and partly the seat of cancerous growths, prolonged from the mediastinal tumour along the primary and secondary divisions of the bronchial tubes and their accompanying vessels. The bronchi (especially the right), and the lower part of the trachea, were surrounded, more or less, by a continuation of the same growth. The mucous membrane of the lower inch of the trachea was studded thickly with small nodules of cancer, from the size of a tare downwards. These were attached by broad bases, were in some cases single, but generally, more or less confluent and clustered. This condition of mucous membrane extended a little along the left bronchus, but was developed in a very high degree in the whole length of the right, extended thence into the origins of the branches of the lower lobe, throughout the whole length of the primary branches of the upper lobes, and along some, also, of the secondary divisions. The tubes, whose mucous membrane was affected, were those which were surrounded by cancer. The entire thickness of their walls was involved (the cartilages remaining perfect), and their calibre was much diminished.

There were a few cancerous tumours in the liver, but all other organs, thoracic and abdominal, were tolerably healthy.

The cancer consisted almost entirely of small round or oval nuclei.

CASE 4.—*Cancer of bones. Secondary cancer of lungs and pleuræ. Some of the pleural tumours cupped, others extending along the interlobular septa.*

S. S., a woman, æt. 57, was admitted, moribund, on the 20th of April, and died the next day. No history could be obtained beyond the statement that she had been ill for seven weeks.

The body was in tolerably good condition. The skull presented, in different parts, eight or nine encephaloïd tumours. They were circular in outline, and between an inch-and-a-half and half-an-inch in diameter. They occupied the entire thickness of the bone, formed a convexity on either side, projecting half-an-inch, or less, externally, but scarcely so

much internally. The brain was healthy, or indented a little only by some of the more prominent tumours.

There were a few old adhesions in both pleuræ, especially above. The left lung was much inflated; its surface presented several tumours. They were convex or slightly cupped, and projected from one-eighth of an inch downwards. They were circular in outline, between one-half and one-fourth of an inch in diameter, and vascular on the surface, but especially around the margins. On section they were found to involve the subjacent lung structures to a very slight extent, and to consist of a soft, elastic, white material, yielding creamy juice. One of them presented, on a vertical section, a peculiar mushroom shape, from the fact of a narrow band of like material being prolonged from its centre for about half-an-inch along one of the interlobular septa. No similar tumours were found in the interior of the lung, but its apex was puckered, and contained several cretaceous masses. The surface of the right lung was studded with a larger number of cancerous tumours than that of the left. These presented similar characters to those just described, and several were found prolonged, with more or less distinctness, along the interlobular septa. The lower lobe was collapsed, and the upper one, not far from its root, contained a considerable mass of ordinary cancerous infiltration. The bronchial tubes contained more secretion than usual. Many of the bronchial glands formed cretaceous masses.

The larynx, trachea, and other viscera, thoracic as well as abdominal, were quite healthy. Several of the ribs were the seat of encephaloïd growths.

Microscopic specimens of the cancer, whencesoever derived, consisted almost entirely of nuclei, a little smaller than pus-corpuscles. They had distinct and even margins, were round or oval, and often so much elongated as to be two or even three times as long as they were broad.

CASE 5.—*Cancer of the thigh, brain, lung, &c. Pendulous cancerous growths into the pulmonary vein.*

H. M., a married woman, æt. 52, was admitted on the 11th of March, 1851. She gave no previous history of her case, but was suffering from slight bronchitic symptoms, and paralysis of the left arm. The former symptoms were relieved by treatment, the latter increased upon her, and soon the whole of the left side became paralytic. She became apathetic and stupid; but completely comatose only a few days before her death, which occurred on the 23rd of May.

Post-mortem examination.—An encephaloïd tumour, as large as a

hen's egg, was found beneath the integuments of the right thigh, and numerous similar tumours (the largest equal to a pigeon's egg) were discovered in the substance of the brain.

Pleuræ healthy. The left lung presented in its lower lobe an irregular encephaloid mass, about the size of a hen's egg. The main bronchial tube leading to this lobe was involved in, and partially destroyed by, the growth; so that all communication between the smaller tubes of the lower two-thirds of the lobe and the external air was cut off. Some of these were blocked up by encephaloid material, but the remainder were very considerably dilated, and loaded either with pus or with thick mucus. The pulmonary arteries passing through the tumour were unaffected; but a large branch of the pulmonary vein, situated in its substance, presented, springing from its inner surface, a pendulous growth, as large as a grain of wheat. Similarly attached, also, to the terminal part of the corresponding venous trunk, and hanging into the left auricle, were two other tumours, one as large as a pea, the other the size of a filbert. Numerous patches of malignant disease were found scattered throughout the upper lobe of the lung, and a small nodule was detected in the muscular walls of the heart. The opposite lung was healthy, and none of the remaining viscera presented anything worthy of remark.

CASE 6.—*Primary cancer of the lungs, with simultaneous degeneration, producing remarkable contraction of the surface of the organs.*

E. W., a servant, æt. 36, was admitted on the 1st June, 1858. She stated that she had had some cough for six months, with considerable emaciation. During the last three months she had suffered from amenorrhœa, with some leucorrhœal discharge; had had pain in the left side, with shortness of breath, and had been partially confined to her bed.

On percussion some dulness was detected below the right clavicle, and the resonance over the lower part of the right lung was not very good. The condition of the left side was somewhat masked by spinal curvature. On both sides the respiration was harsh, with prolonged expiratory sound. It was accompanied by rhonchus, and moist crepitation both large and small. There was little or no increase of vocal fremitus. She suffered a good deal from irritability of the stomach. She never had hæmoptysis or well-marked hectic symptoms, but died from asthma on the 10th of July.

Post-mortem examination.—Spare. Much lateral curvature of the spine. Both pleuræ presented numerous firm cellular adhesions. The right lung was rather large, the left smaller than natural, and misshapen, in

order to accommodate itself to the contracted and misshapen left side of the chest, but in other respects both were alike. They were heavier than natural, and their surfaces were remarkably fissured. The fissures existed over every part of each organ, but were perhaps rather more abundant below than above; they varied in length, depth, and direction, and by their intersections rendered the surface of the lungs nodulated or hobnailed. On section the lungs were found to be studded with patches of greyish-white material, which was rather firm, yet yielded large quantities of creamy juice. These patches were scattered thickly, but irregularly throughout the organs, and their sectional surfaces varied from about a square inch in area downwards. The largest patches were situated in the lower lobes. They varied in shape; were mostly distinctly margined, but manifested generally in their peripheral portions, clear indications that the disease had infiltrated rather than displaced the lung tissue. In their interior, there was frequently an increase of fibrous material, and there were also buff-coloured spots, and occasionally, pearly masses, from the size of a pin's-head downwards, which had an earthy feel and consistence. It was ascertained distinctly, that the fissures on the exterior of the lung corresponded to growths of cancer in the subjacent tissue; that the fissures were generally situated over the centre of the growths, over those parts in fact, in which changes of degeneration and increase of fibroid tissue had taken place. In some instances a vertical arrangement of fibroid bands (remining one of a cicatrix), could be readily seen passing inwards from the bottom of a fissure to the centre of a large subjacent cancerous mass. The fissures clearly corresponded to the cupped depression usually seen in connection with hepatic cancer. In some places, the cancer instead of forming distinct masses, infiltrated without destroying portions of lung tissue, giving them the appearance belonging to grey hepatization. The lung tissue between the cancer masses was pretty healthy. The bronchial tubes contained much muco-purulent fluid, but were otherwise healthy. The pulmonary arteries and veins, the bronchial glands, the larynx and trachea, pericardium and heart, were all healthy. There were three or four small malignant tumours in the liver; and cystic enlargement of the left Fallopian tube; but all the other viscera were natural. The cancerous growths consisted almost entirely of cells, globular or ovoid, and generally about $\frac{1}{800}$ inch in diameter. Each cell contained one nucleus (occasionally two or three), varying between the size of a pus-cell, and that of a blood corpuscle. Compound granular cells were abundant in the degenerating portions. The pearly masses above spoken of, appeared to consist of cells infiltrated with a refractive material, which dissolved with effervescence in strong acetic acid.

Dr. BRISTOWE, 1st of May, 1860. .

11. *Case of rupture of the thyro-hyoid ligaments.*

P. L., æt. 44, pale, emaciated, and deeply-marked with smallpox, was admitted a patient at the St. George's and St. James's Dispensary, in November, 1859. He had already been suffering for three months with a hoarseness, almost amounting to loss of voice, and constant cough, which was loud and clangous and aggravated by every attempt at deglutition. There had been previous hæmoptysis, and there were the physical signs of tuberculous deposit at the apices of both lungs, and in the left, the signs of incipient softening. The larynx was large, prominent, and very tender; the epiglottis large and irritable; and the papillæ of the tongue, at the posterior part, were greatly enlarged. In January last, during a paroxysm of cough, he felt something give way in his throat, and the difficulty of deglutition was greatly increased. On examination, the right posterior cornu of the hyoid bone was felt to be floating loosely beneath the integument. It was separated by at least an inch and a-half from the thyroid cartilage. On the left side, there was great mobility of the hyoid bone, but the separation was not equally distinct. During the act of deglutition, the hyoid bone was drawn upwards, and the larynx tilted downwards at the posterior part, thus increasing the distance between the thyroid cartilage and the hyoid bone, the connection being maintained anteriorly only by the thyro-hyoid membrane. It thus happened that the closure of the larynx became incomplete posteriorly, and fluids entered with great ease. This opening was further increased by ulceration, which had denuded the laryngeal cartilages at the posterior part.

It is manifest that in this case the direct application of remedies to the larynx was comparatively easy, and great relief was afforded in this way, by a strong solution of nitrate of silver, which acted not only as an alterative and astringent, but greatly relieved the extreme irritability of the part.

Dr. STALLARD, 15th of May, 1860.

12. *Bronchial casts, coincident with perfect health, and accompanied by persistent and circumscribed physical signs of pneumonia.*

These specimens of casts of bronchial tubes were coughed up by a man who came under my care among the out-patients of Charing Cross Hospital three years ago, and are not exhibited so much on account of their great quantity and their beauty as specimens,—although in both these aspects they are remarkable,—as on account of some points of peculiar interest connected with the case by which they were furnished. During the two years in which the patient was under my care, he brought me many hundreds, and these which are now shown

would be enough to stock many museums with specimens. In form they are seen to be very perfect and most beautifully arborescent, being moulds of branches of the bronchial tree almost to its finest twigs.

But the two points to which I would call particular attention are:—
1. The evidence which the case affords of the compatibility of the condition with perfect health; and 2. the peculiar physical signs with which it was associated. These two points are strikingly illustrated in the history of the case, which is as follows:—

W. J., æt. 33, a stoutish, remarkably healthy-looking, florid man, by occupation a letterpress printer; he is married, with three children. His father was killed many years ago, his mother died lately of old age. A brother and sister are living, three have died—two young, one of hydrocephalus, and one of measles, and one at the age of 19, apparently of phthisis, so that there seems some trace of struma in his family: the patient has a little of the strumous aspect about him—eyes blue, hair light and soft, skin fair. He was perfectly well up to nine months ago, when he caught, as he fancied, a cold; but his only symptom seems to have been cough, which he thought must necessarily arise from cold. The cough was not severe, and on the whole it was dry, the expectoration only occasional and scanty, but always the same material as that he now coughs up. At first, it was in very small pieces, and has never been accompanied with blood. He had an abiding sense of soreness beneath the sternum, which was increased by coughing, every act of cough gave him an aggravation of this sensation. This gradually went off after having lasted about two months, and afterwards, for three months, he does not remember that he coughed up anything. Then, fourteen weeks before he came to me, the symptoms returned with much greater severity than before: the cough was harsh, rough, tearing, and dry, and he would often cough for a long time and get nothing up; sometimes the paroxysms would be very long, as much as two or three hours; but whenever the matter was dislodged and coughed up the fit ceased. Occasionally, but very rarely, a single short cough would bring up a portion. Since that time the cough has never left him; but he became again worse about a month ago, worse than ever, the cough harder and more violent, but he does not think he spit more. This went on unabated till he came to me, and apparently received benefit from what I ordered him, or else, which is not at all unlikely, the milder weather relieved him—he coughed less, spat less, and the sternal soreness was less. Before coming to me he always coughed up some of the material in the morning, generally in the evening, and occasionally in the day; afterwards he only got rid of it once in twenty-four hours, and then generally in the evening. At no time had the material expectorated been accompanied by blood.

On first looking at the sputa as the man brought them to me, there was nothing arborescent in their appearance; they looked simply like masses of firm gelatinous mucus, but the general symptoms made me suspect what they were, and on shaking them out in water their arborescent form became immediately and beautifully conspicuous. (Woodcut 4.)

WOODCUT 4.



The figure represents one of the casts, of the natural size, as seen when floated out in water.

I found on examining the chest that it was everywhere resonant,

the range of movement great, air entering everywhere, and no pain. There was no morbid sound of any kind except in one spot, about two inches to the right of and below the right nipple, where, over a space about the size of a shilling, was clear and well-developed pneumonic crepitation. The crepitation was confined to the end of the inspiration, was long and distinct in proportion to the depth of the inspiration, and was of the true, "fine," pneumonic type. There had been no pain at this spot, or any sensation whatever, nor was the man aware from any symptom that his disease was localized there. Thinking the case one of great interest, and the physical signs such as I had never known before associated with this condition, I sent the man to my friend and neighbour, Dr. George Johnson, and he heard exactly what I did.

Now, I think, in respect of physical signs, this case was remarkable in these points.—It showed how very circumscribed the affection was, that the small air-tubes of a very small and isolated portion of the lung might be persistently affected with this peculiar kind of inflammation; it showed, too, that the exudation took place in the smallest tubes; and I think it went a great way to show (what, I think, is favoured by a good deal of other evidence), that the minute air-tubes are the seat of pneumonic crepitation, for there is no reason to think the air-cells could possibly generate this mucus, or that it had ever reached them, while that it occupied the smaller tubes, and must have had the air drawn through its more fluid portions at each inspiration, is certain.

The man came to me, on and off, for a twelvemonth, with some slight improvement in the amount of the cough and expectorated matter, but with no other change; he never went a week without spitting *some*, and generally, at his best time, as often as once in three days. His general health never suffered in the least, all his functions were perfect, his breathing quite unaffected, he had the florid brightness of health, and might at any time have served as a model of manly muscular development. I tried various remedies,—expectorants, sedatives, astringents, tonics; that which seemed to do him the most good was quinine, avoidance of cold, and checking the cough as much as possible.

For six months, I saw nothing of him, and then he called on me, and I found he had been going on in exactly the same way as before: on listening to his chest, I found the same physical signs in the same spot, but over a slightly enlarged area, as big, perhaps, as a five-shilling piece. The man's health was still perfect, and the pieces of expectorated matter that he brought me, just the same as before.

Again, for many months, I lost sight of him (from his leaving town), and again he came to show himself. This was the last time I saw him, and was about two years after he first came to me, and three after the

first access of his symptoms: he has never appeared since, and therefore I cannot say what is his present condition; but probably he is going on in the same way as ever.

On this last occasion, the area of morbid action, and of the crepitation that showed it, was still further slightly enlarged, to a space of about two inches diameter, but in other respects was unchanged. In the interval since I had seen him last he had had a distinct exacerbation from cold, to which he attributed the extension of the mischief.

There is one anatomical fact that the form of the casts illustrates;—it shows that the air-tubes ramify after the arterial fashion, that the tube goes some distance without ramifying, and then throws off a clump of branches, springing from a common “axis.” No doubt this has the same purpose as in arteries, serving to diminish to the utmost the resistance to the moving fluid, by keeping the tubes as unbroken as possible, and avoiding the friction and constant change of direction involved in continuous dichotomous branching.

I think the expulsion of these solid casts is strongly corroborative of the supposed deobstruent function of the smaller bronchial tubes. Seeing the smallness of the tubes they occupied, and the modicum of air behind them for their expulsion by cough, I cannot conceive any other method by which they could be detached and passed on to the larger tubes, except the peristaltic contraction of the smaller ones, in which they were first formed.

Dr. HYDE SALTER, 15th of May, 1860.

III.—DISEASES, ETC., OF THE ORGANS OF CIRCULATION.

1. *Malformation of the heart; absence of ductus arteriosus; small size of the pulmonary artery; aorta arising from both ventricles; irregular course of the aorta, &c.*

The subject of this case was a male infant, under the care of Dr. Brinton, at the Royal Free Hospital, by whom he was sent to Dr. Peacock. He was born at the full period and of healthy parents. At birth, his mother stated, that he was a healthy child, but when three weeks old he was seen by a medical man, and found to be of an unusually dark colour. From this time the lividity increased, and at the age of seven or eight months, he began to suffer from suffocative attacks which terminated in convulsions. Of these he sometimes had several slight fits during the day; at other times the attacks were less frequent, but more severe and of longer duration. When in them he became,

DESCRIPTION OF PLATE I.

Illustrating Dr. Peacock's case of Malformation of the Heart, p. 41.

- Fig. 1. Represents an anterior view, showing the aorta originating on the right side, passing over the right bronchus, and giving off the two carotid arteries.
- Fig. 2. Represents a posterior view, showing the aorta after its passage over the right bronchus, and giving off the right and left subclavian arteries.

Fig. 2



Fig. 1.



literally, almost black in the face, and the hands and feet, and especially the nails, were quite black. When quiet the heart-sounds were distinct and free from murmur, but when he was excited, a loud systolic murmur was audible over the whole front of the chest, and most intensely at the middle and upper part of the sternum. The respiration was generally rapid and the pulse also quick. The veins of the head and neck were greatly distended. The child was excessively irritable, and seldom ceased crying or slept, except when carried about in the arms. Towards the latter period of his life, he had frequent sickness and vomiting and constant diarrhoea. He became excessively emaciated, and died exhausted, after a severe fit, when eleven months and a-half old.

On examination, the heart (Plate I.) was found much larger than that of a healthy child at the same age. The pulmonary artery, which arose as usual from the infundibular part of the right ventricle, was of very small size and very short. It divided into two pulmonary branches but there was no trace of the ductus arteriosus. The aorta arose partly from the sinus of the right ventricle, and communicated with the left ventricle by an aperture at the base of the septum. The right ventricle was large and formed almost the whole of the anterior part of the organ and its walls were thick and firm. The left ventricle was small and its walls less firm. The right auricle was very large, the left auricle small, and the foramen ovale entirely closed. The aorta pursued an unusual course; it passed over the right bronchus, made its turn behind the termination of the trachea, to reach its common situation on the left side of the bodies of the vertebræ, and thence followed its usual course. The branches arising from the arch were four in number. Shortly after the origin of the vessel the right and left carotid arteries arose and passed upwards on each side of the front of the trachea. The right subclavian artery was then given off when the aorta was at the side of the trachea, and the left subclavian after it had turned round the right bronchus. This artery then passed outwards, lying in a sulcus at the point where the left bronchus separates from the trachea, and followed its ordinary course. The bronchial arteries, given off from the upper part of the descending aorta, were much larger than usual.

The above case of malformation possessed several features of peculiar interest.

1. It probably originated in the imperfect development of the bronchial arches, which usually go to the formation of the left aorta and ductus arteriosus; in consequence of this the pulmonary artery, receiving only the blood transmitted to the lungs during foetal life, continued permanently small. The septum of the ventricles was imperfect and dis-

placed, and, from its deviation to the left, the aorta came to arise from the right ventricle. Indeed, the right aorta was developed instead of the left.

2. The aorta not only originated irregularly, but it pursued an unusual course, passing over the right bronchus, and gave off four, instead of only three, branches from the arch.

In neither of these respects is the case unique. Instances of absence of the ductus arteriosus have been recorded, in cases of malformation, by Knox, Blackmore, Worthington, Lexis, Gamage, Huss, Deguise and Aran;* in a monstrous child, by Otto;† in a fœtus, by Meckel;‡ and Dr. Peacock has himself described a specimen in which the arterial duct was absent, in the seventh volume of the "Transactions."§ In some of these cases the duct probably became abortive from the free communication between the ventricles and the common origin of the aorta; in others, the closure of the duct might, as in this case, be the primary change. It will be observed that the pulmonary artery was very short; and this is probably an usual condition when the ductus arteriosus does not exist.

The irregular course of the aorta, in which that vessel makes its turn round the right bronchus, has been met with in a case of malformation of the heart, described both by Cailliot|| and Obet,¶ and in a case where the heart was healthy, related by Sandifort,** and Agliette,†† and in one by Otto.‡‡ In the case described by Sandifort and Agliette, the vessels arising from the arch presented a very similar irregularity to that which existed in this case; but, in addition, the obliterated trunk of the ductus arteriosus was found inserted at the commencement of the left subclavian artery. In the case of Cailliot and Obet, the vessels arising from the arch were transposed, the right subclavian and carotid arteries arising separately, and the left subclavian and carotid by a common trunk. In the case of Otto, five vessels were given off from the arch, —the left carotid, the right carotid, the vertebral, the right subclavian, and the left subclavian. Walther has described and figured a specimen in which, with the natural conformation of the heart and the aorta in its normal position, four vessels were given off, viz., two carotid and two subclavian arteries;§§ and a similar irregularity was met with by Dr.

* Dr. Peacock, "Malformations, &c., of the Human Heart," p. 74 and 103. 1858.

† Selt. Beob., Pt. 1, p. 16.

‡ Reil's Arch., Vol. IX., p. 437.

§ P. 83; and *op. cit.*, p. 75.

|| Bullet. de l'École de Med., 1807, No. 2, p. 24.

¶ Bullet. des Sc. Med., T. 2, 1809, Mai, 1808, p. 65.

** Mus. Anat. Lugd. Batav., 1793, Vol. I., p. 273; and Vol. II., Pl. 107, Figs. 1 and 2.

†† Saggi di Padova, 1786, T. 1, p. 69, Tav. 1.

‡‡ Neue Selt. Beob., 1824, p. 60; and Verzeichniss, 1826, No. 1922.

§§ Nouv. Mem. de l'Acad. de Berlin, 1785, Pl. 61, xiv.; and Tiedemann, Tab. III., Fig. 5; and Quain and Maelise, Pl. 6, Fig. 12.

Walshe,* in a case of transposition of the aorta and pulmonary artery. It appears by no means uncommon that the four primary vessels arise separately; but the arrangement is generally different from that which obtained in this case,—the carotids arising first, then the left subclavian, and, lastly, the right subclavian, and the latter vessel usually passes behind the trachea to reach the right side of the neck. This irregularity has been described and figured by Boehmer;† and three instances of the kind exist in the museum of St. Thomas's Hospital.

3. The cyanosis in this case was very intense, a peculiarity which may be explained by the difficulty which must have existed in the transmission of the blood through the lungs and systemic vessels. The double circulation was almost wholly maintained by the right ventricle; and the small portion of blood, transmitted to the lungs by the contracted pulmonary artery, must have been returned by the pulmonary vein to the left auricle, thence transmitted into the left ventricle, and so, by the aperture in the septum, into the aorta. The closure of the foramen ovale must have greatly aggravated the congestion of the systemic venous system.

Dr. PEACOCK, 18th of October, 1859.

2. *Obstructive and regurgitant disease of the aortic valves; regurgitation, without contraction, through the left auriculo-ventricular aperture.*

The subject of this case was a girl, æt. 15, who was an in-patient at the Victoria Park Hospital for Diseases of the Chest. She had had rheumatic fever six years before, and had suffered from symptoms of cardiac disease for four years. She was first admitted into the Hospital on the 11th of March, and was at that time suffering severely from dyspnoea, palpitation, cough and expectoration, and had some œdema of the face and lower extremities. The præcordial region was very prominent; the dulness on percussion was increased in extent; and the pulsation widely diffused. The pulse was very irregular; a loud systolic murmur was heard over the whole præcordia, but was most intense below the nipple. While in the Hospital, she greatly improved; the œdema subsided, the pulse became regular, and she gained strength. She was discharged on the 16th of June. At that time, in addition to the loud systolic murmur heard at the apex, there was a systolic murmur audible also at the base, and, in the same situation, a slight murmur followed a loud diastolic sound. After her discharge, she continued in much the same state till about the 14th of September, when she was taken with an attack of diarrhoea and sickness, and she was re-admitted on the 28th. She was then very greatly exhausted. The

* Med.-Chir. Trans., Vol. 25, 1842, p. 1. † Haller's Disp. Anat., Vol. 2, 1747.

physical signs continued much the same as before, but the diastolic murmur was much more marked. She died on the 5th of October.

The body presented no disease, except in the heart. The pericardium was universally attached by old cellular adhesions. The heart was very greatly hypertrophied and dilated, and weighed, with the adherent pericardium, twenty-five ounces. The hypertrophy and dilatation affected chiefly the left ventricle; the aortic valves were much thickened, and one of the segments fell down so as to allow fluid poured into the aorta to flow freely into the ventricle. The auriculo-ventricular aperture was considerably dilated; and the valves, which were much thickened, especially at their free edges, were clearly incapable of closing the opening. The left auricle was very greatly dilated, the endo- and pericardium much thickened, and the muscular structure also much hypertrophied. The pulmonary artery, right ventricle, and right auricle were also dilated, and the muscular walls of the latter cavities hypertrophied; but the hypertrophy and dilatation of the right cavities was much less marked than those of the left.

The dimensions of the orifices, cavities, and walls of the heart were as follows:—

The aortic orifice admitted a ball measuring thirty-six French lines in circumference; the pulmonic, thirty-three; the left auriculo-ventricular orifice, fifty-four; the right auriculo-ventricular, forty-five.

The left ventricle measured three French inches in length; and its walls were six lines in width at the widest part. The right ventricle was four inches in length, and three lines in greatest width. The left auricular walls were two lines in thickness.

Dr. PEACOCK, 18th of October, 1859.

3. *Aneurysm of the superior mesenteric artery.*

A. C., æt. 21, was admitted into Guy's Hospital, under Dr. Gull's care, on the 1st of June, 1859. He had suffered from rheumatic fever two or three years before, and came in with a sub-acute attack of the same, together with symptoms denoting a very severe disease of the aortic valves. He subsequently had some dropsy, albuminous urine, and convulsive attacks, which brought him exceedingly low, and at last he died quite suddenly. The *post-mortem* examination showed the brain to be healthy; the heart much enlarged, with partial destruction of the aortic valves; fibrinous masses in the spleen, kidneys, &c. Besides these, a large quantity of blood, amounting to nearly three pounds, was found effused into the mesentery, and behind the peritoneum generally. On removing the coagulum, a sac was discovered, about the size of a bantam's egg, having a rent an inch long on its

surface, from which the blood had proceeded. This was an aneurysm formed on the lower end of the superior mesenteric artery, having very thin walls, and lined only by some tender films of fibrine.

This case resembled one related to the Society by Dr. John Ogle,* and which, with one other, were the only two specimens, besides the present, seen by the author. It was, therefore, of interest, from its rarity; but not so much even, in this respect, as it was pathologically, in connection with disease of the heart. The instances being too common, of the association of acute endocarditis and aneurysm, for it to be supposed that their co-existence is due merely to coincidence; but whether, as Dr. Ogle remarked, the aneurysm be due to the impaction of a fibrinous clot, and its subsequent softening and involving of the artery, or whether the whole arterial system be affected in a rheumatic attack, further observations are required to prove.

Dr. WILKS, 18th of October, 1859.

4. *Malformation of the heart. Contraction of the pulmonary orifice, with an opening in the septum ventriculorum, &c.*

T. P., a male child, was brought to University College Hospital, in consequence of some cough:—Sonorous rhonchi were found over the chest anteriorly, and posteriorly at the bases of the lungs, there were submucous rhonchi, as well as slight dulness on percussion.

The child was puny, and presented some lividity of the surface which, the mother said, had existed since its birth; the blue tinge was, however, by no means very considerable. The apex of the heart beat at about half-an-inch vertically below the nipple, and the impulse was rather stronger than natural. A single murmur was heard synchronously with the first sound of the heart; most distinct at the apex, but also present at the base; it was very feeble in the left infra clavicular region, but more distinct in the right one, though here, too, but slightly audible. The second sound at the base was feeble. The murmur was heard at both infra scapular regions, but most so at the lower part of the left one, where it was almost as distinct as at the apex of the heart.

The child died at the age of two months.

The weight of the heart was very nearly one ounce. Neither auricle remarkably thick as regards the walls, but the right auricle was double the size of the left one; the foramen ovale closed, except a minute orifice, the size of a pin's-point. Left auriculo-ventricular opening small; the right one perhaps too large; the valves healthy. Both ventricles were small, even for the size of the heart—especially the left one; the walls of each were considerably hypertrophied, and of nearly equal thickness,

* "Trans. of Path. Soc.," Vol. VIII., p. 168.

those of the right perhaps rather the thickest. The septum was thick, except at the upper part, where there was an oval opening (three-eighths of an inch by about half that amount). The aorta was of very large size, viz., one inch and one-eighth in circumference at its orifice and larger above; the valves of large size, but otherwise normal; in consequence of the deficient septum it communicated with both ventricles. The pulmonary artery, very small and thin, was three-eighths of an inch in circumference (would just admit an ordinary dissecting case blowpipe point), and presented three rudimentary valves of nearly equal size: at a little distance from the ventricle, the pulmonary artery increased in size.

Dr. HARE, 1st of November, 1859.

5. *Malformation of the heart. Obstruction at the aortic orifice (only two valves). Open ductus arteriosus.*

C. S., male, was under observation for the last three months of his life, and died aged six months. The child suffered from shortness of breath, cough, and had convulsive twitchings, and once a severe convulsive attack in which he became very blue; but, usually, the complexion, though dusky, was not livid. The sternum was somewhat convex and the costal cartilages, especially the left ones, prominent, so as to give the chest a somewhat globose appearance. The impulse was too strong and extended too much to the left. A loud rough murmur was heard over almost the whole of the chest, but most at the apex, systolic; the murmur was very peculiar; though single, it was, in the middle-third of its duration, much more acute than at its commencement or end. The chest was auscultated several times, and the murmur had always the same character, except about five or six days before death (the last time I saw the child); then, the murmur was less loud and had lost the special character.

The heart was large, and weighed two ounces and a-quarter. The left auricle was rather larger than the right one, though neither of them far from the normal size; the lining membrane of the left one appeared more opaque and much thicker than usual. Foramen ovale closed. The left auriculo-ventricular opening would admit the tip of a medium-sized little finger; the right one admitted that finger as far as the first joint. The left ventricle very thick, even at the apex; right ventricle too thick and of considerable size. The aortic orifice somewhat irregular in shape and smaller than natural; its valves somewhat thickened, and only two in number, the larger one having a rudimentary septum. Pulmonary artery one inch and a-half in circumference; valves healthy and three in number. The ductus arteriosus open.

Remarks.—This specimen and the preceding one, taken together, well illustrate cardiac malformation, commencing at each of the two arterial orifices. In the first example, the starting-point, was the obstruction at the pulmonary orifice; hence, very little blood could get from the right ventricle directly to the lungs, but the major part passed through the perforation at the base of the septum into the aorta, and so partly into the general circulation, but doubtless, partly through an open ductus arteriosus into the lungs for aëration. In the second specimen, the first point of mischief was at the aortic opening, through which the blood could not pass freely: a portion of the blood, therefore, which usually passes from the right ventricle through the lungs, did not in this case take that route, but went directly from the right side of the heart into the systemic circulation by means of the ductus arteriosus. This vessel, therefore, in the two cases, transmitted blood in opposite directions:—in the former case, the ductus carried part of the mixed blood sent by the two ventricles into the aorta, to the lungs, and in a direction the reverse of what obtains, normally, in foetal life; in the latter example, it carried a portion of the blood from the pulmonary artery to the aorta, in the same direction as in the fœtus.

The malformation illustrated by the second specimen is a decidedly rare one.

Dr. HARE, 1st of November, 1859.

6. *Systolic murmur at the apex of the heart, produced, apparently, by incompetence of the tricuspid valve.*

J. B., a hunchback of diminutive stature, æt. 24, was admitted under my care on the 27th of September, 1859. From his fifth year, at which time the angular curvature appeared, he had enjoyed constant good health until last spring, when he was attacked with smallpox, which kept him seven weeks from his work. Three weeks after resuming his occupation (now three months since) he perceived his ankles beginning to swell. The œdema soon became general, and his breathing difficult.

On admission, he was suffering from general anasarca, with lividity of the lips and fingers. He laboured under severe dyspnœa, increased by the recumbent posture, and complained of a short, dry cough, coming on in frequent spasmodic attacks. His sleep was disturbed; his tongue somewhat dry and furred. His appetite was fair; his bowels natural, and his urine healthy. The pulse was regular—108. There was a distinct, but not very loud, systolic murmur, loudest in the usual situation of the apex of the heart. The left side of the chest was generally dull, with some diminution of vocal fremitus; and loud, dry, crackling sounds were audible at every part. The right side was re-

sonant, and the respiratory sounds were mixed with rhonchus and sub-crepitation.

While under treatment, he presented intervals of apparent amendment. No real improvement, however, took place, and he died on the 12th of October, the cardiac murmur and the local pulmonary signs remaining audible to the last.

Post-mortem examination.—The pericardium contained an ounce or two of serum. The heart looked unusually large, and weighed eleven ounces. It occupied its natural position in relation to the front of the thorax, but its right edge was tilted a little more forward than usual. The apex of the organ was bifid, the most projecting portion being the apex of the right ventricle. The left ventricle was very small, and its walls proportionately thin. The aortic and mitral valves were perfectly healthy-looking, and doubtless quite competent. The right ventricle was extremely dilated, its walls very firm, and at least as thick again as natural. The tricuspid and pulmonic valves appeared quite healthy; but the muscoli papillares were small, certainly not hypertrophied in proportion to the dilatation of the cavity. The left auricle was small, the right dilated and hypertrophied. The cavities on the right side were loaded with coagulum, those on the left nearly empty. Both lungs were universally adherent, the adhesions being somewhat œdematous, and, in one part, particularly dense. The left lung was unusually small, very sparingly crepitant, generally congested, and more or less carnified. The right lung, also, was small, yet considerably larger than the left. It was crepitant, though less so than natural, and congested. The bronchial tubes of both lungs were loaded with somewhat tenacious mucus, but otherwise seemed healthy. Several of the bronchial glands were converted into more or less friable earthy masses; one of which, irregular and angular in form, and of about the size of a horse-bean, communicated freely, by an angular orifice of corresponding size, with one of the branches of the right bronchus; but it was not yet wholly detached, and occupying therefore its original cavity, projected freely into the canal of the bronchial tube. Larynx and trachea healthy.

There were three or four pints of serum in the abdominal cavity. The viscera, with the exception of the spleen, which was enlarged, and the kidneys, which were congested, were healthy.

There were no indications of abscess, old or recent, connected with the spinal curvature.

Remarks.—The idea entertained, during the time that the subject of the above case was under treatment, was that he was suffering from congestion and œdema of the lungs, secondary to disease of the mitral

valve. At the post-mortem examination, however, all the valves appeared perfectly healthy. How, then, could the murmur, which had been audible during life, with the systole and at the apex, have been produced? It is by no means uncommon to meet with cases in which, all the signs and symptoms of mitral diseases are present, but in which after death, the mitral valve appears, at first sight, perfectly healthy. In all such cases, however, that had hitherto come under my notice, the left ventricle had been hypertrophied and dilated, but without a corresponding degree of enlargement and elongation of the musculi papillares and chordæ tendineæ; and, apparently in consequence of this disproportion, the mitral valve had been rendered incompetent. But a precisely similar explanation was quite inapplicable to the present case, for not one of the supposed necessary conditions, above indicated, existed on the left side of the heart. On the right side, however, they were all present, the walls were hypertrophied, the cavity dilated, the musculi papillares and their tendons comparatively small; and, in addition, the right ventricle itself was tilted forwards, and towards the position normally occupied by the left. There can, therefore, I think, be little doubt that the murmur was really produced at the tricuspid orifice, by regurgitation, dependent on the disproportion of the various parts of the valvular apparatus, and rendered, by the hypertrophy of the ventricular walls, sufficiently forcible to produce sonorous vibration.

Dr. BRISTOWE, 1st of November, 1859.

7. *Aneurysm of the abdominal aorta which originally simulated lumbago, and finally burst into the peritoneal cavity.*

History.—The patient was a naval officer, æt. 69, about six feet in height, who, until within a few months of his death, had always enjoyed good health. He first began to complain of pain in the loins (after nursing a paralytic relation for some months), which was thought at the time to be lumbago, and for this he went to Vichy and tried a course of the waters. Whilst in the bath, he first felt a “great deal of pulsation” in the middle of the belly, but it did not seem that any aneurysmal swelling was noticed at that time either by himself or his attendants. After visiting Paris he returned to England. He then, without apparent cause of any kind, became greatly emaciated in a very short space of time, losing several stones in weight, and on the 24th of September, he was seen by Dr. Babington, along with Dr. Oates of Erith. At this period his general health was much out of order, the functions of most of the organs being very irregular; and he was complaining of violent pain in the abdomen, increased on pressure. On manipulation, a deep-

seated tumour was detected, extending both above and below the umbilicus, and also to the left of the abdomen, attended by evident pulsation. This pulsating tumour became more obvious after the bowels had been emptied by purgatives, and the pain relieved by sedatives. No arterial whiz was, however, at this time audible.

The urine was found to be not albuminous, but of low specific gravity, and containing numerous casts of the urinary tubes.

Dr. Wilson then (October 1st) was called in consultation. He has kindly supplied me with notes of the case, as it came under his observation, from which I gather the following information. It seems that at his first visit to the patient there was a heavy aching pain in the "right" flank and hip, and generally across the lower part of the abdomen: and that he found a hard flat cake-like tumour immediately over the abdominal aorta, three or four inches long from right to left, and two or three inches wide, pulsating regularly eighty times per minute. The pulsations were accompanied by a *single* murmur, but no distinct whiz or thrill. This tumour was slightly moveable in all directions, but never off the median line. Altogether it appeared that the tumour was one involving the structure of the aorta. On the day following, the patient was free from all pain, and there was much less impulse from the tumour, but to the left of the median line, a very distinct "whiz" with coincident "thrill" was observed over the tumour, both by Dr. Babington and Dr. Wilson. The tumour was recognized as being an aneurysm. The friends wishing, subsequently, to know if any surgical operation could avail, Mr. Fergusson was consulted, who also came to the conclusion that an aneurysm existed. Up to this time, the pain in the abdomen had greatly increased; and on the evening of the day on which the patient was examined by Mr. Fergusson, whilst quietly walking across the room, supported by a friend, he suddenly became faint and died.

Post-mortem examination showed that the view entertained of the case at the close of life was correct. The peritoneal cavity contained a large quantity (nearly two quarts) of coagulated blood, and much blood also existed between the layers of the meso-colon on the left side. This hæmorrhage had proceeded from the aneurysmal sac which had given way in the left lumbar region. The sac was found to be produced by general dilatation for about the distance of six inches of the abdominal aorta, chiefly of the left side of the arterial parietes, and to extend to within half-an-inch of the bifurcation into the common iliaes. The sac was altogether of about twice the size of a cricket-ball, and its walls were greatly thickened and brittle.* The left kidney was very

* Preparation now in St. George's Hospital Pathological Museum, as No. 37, Sub-series v., Series xi.

large, mottled, and flabby, but the other abdominal organs were natural. The thoracic organs were not allowed to be examined.

Remarks on this Case will follow Case 8.

Dr. JOHN OGLE, for Dr. BABINGTON, 6th of December, 1859.

8. *Abdominal aneurysm, at first simulating lumbago, and, subsequently, disease of the kidneys. Rupture and escape of contents into the general peritoneal cavity.*

History.—The specimen was removed from the body of a billiard-table maker, æt. 40, who, at about one year and a-half before death, had been subject to pain in the loins on rising from bed in a morning, and subsequently experienced much “gnawing pain” in the lower part of the back, and the left groin and hip.

The secretions and general health of the patient were at this time good, and the case was thought to be one of “lumbago.” At a later period, slight but distinct and regular pulsation was found in the left loin. At this time, however, there was no distinct vascular bruit at this part, nor could any actual tumour be felt here, but the whole region was very full. No pulsation existed at the front of the abdomen. At that time, he was passing as much as six pints of urine, of the sp. gr. of 1009, in the day, which contained traces of albumen; and it was supposed that some disease of the left kidney existed, although no other morbid indications were found in the urine. At a later period, the pulsation in the left loin was found to be very strong at a point above the crest of the left ilium, and especially so, on turning over to the right side. A little later still, a “slight bruit” was audible above the left iliac crest, and the patient was sensible of a constant throbbing in this region; the fulness having materially increased. The patient was one day suddenly seized with prostration, from which he only partially rallied. Two days following he fainted away once or twice, and was subsequently affected by excessive pain about the abdomen. On the following day he died.

Post-mortem examination.—Much serous fluid was found in the left pleural cavity, which was also greatly encroached upon by an aneurysmal sac, of about the size of a small cocoa-nut,* communicating, by an oval opening, with the posterior part of the abdominal aorta, and greatly pushing forwards the stomach, pancreas, and left kidney. Moreover, the contiguous part of the abdominal aorta was considerably lifted forwards from the vertebral column by the aneurysm; and the anterior surfaces of two or three of the lumbar vertebræ were greatly excavated by

* Preparation now in St. George’s Hospital Pathological Museum, as No. 36, Sub-series v., Series xi.

reason of the pressure of the aneurysm, and completely bathed by its contents. The sac contained a large quantity of fluid and coagulated blood; but the left and outer parts of its walls were quite destroyed, and its contents were continuous with a similar mass of blood occupying the substance of the muscles of the back and side of the abdomen, as far down as the crest of the ilium, which were excessively discoloured, and, to a great degree, in a state of disintegration. The strong fascia attached to the crest of the ilium had given way at one part; and here a quantity of the blood from the aneurysm had made its way into the general peritoneal cavity. The various other parts of the body, not above-mentioned, appeared healthy.

Remarks.—This case, and the one preceding it (No. 7), which I related for Dr. Babington, are both specially interesting, as showing how necessary it is closely to examine into cases of what are often perfunctorily termed “lumbago.” Such cases, defying all treatment, are not infrequently met with by the medical man, and may prove to be owing to some deep-seated and important malady. It may be, that the extreme pain, as in the present instances, is due to aneurysm of some large vessel, or to malignant disease of the spine or neighbouring parts. Dr. Watson, in his lectures (see *Thoracic Aneurysms*) mentions a case related to him by Dr. Farre, in which an aneurysm proved fatal, which, during life, was unsuspected, and of which the only sign had been a white tongue and pain in the back.

Moreover, in both these cases, diagnosis was much complicated by the existence of a “*low specific gravity, of the urine,*” in the one case without albumen, but with casts of urinary tubules, and in the other, with albumen without casts; phenomena not due, as it appeared, to any real or foregoing disease of the kidneys, but merely to the local irritation of the kidney, owing to the interference with the renal vessels by the contiguous aneurysm, which, in the first case (No. 7), was so placed as considerably to displace the left kidney, whilst, in the second case (No. 8), the kidney on the side corresponding to the aneurysm was unusually large, mottled, and flabby, and evidently diseased, owing to the proximity of the aneurysm. This proximity of the aneurysm in Case 8 was also, no doubt, the cause of the effusion in the left pleural cavity.

It is remarkable that in the first case, as in the second case, no bruit existed at first, and only a slight one at the last.

The absence of any distinct tumour was well accounted for in the second case of aneurysm, by the fact of its being so diffused.

Again, it is of interest to dwell on the extreme and rapid ‘*emaciation*’ which existed in Case 7. This may be, I think, attributable,—as

no other cause could be found,—to interference, by the aneurysmal sac, with the lymphatic system,—possibly with the great lacteal duct.

In connection with the effect of the pressure of the aneurysm upon the vertebral column, see the following case (No. 9), accompanied by a drawing, wherein destruction of the vertebræ was so complete as quite to destroy all bone between the spinal canal and the aneurysmal sac.

Dr. JOHN OGLE, 6th of December, 1859.

9. *Large aneurysm of the descending thoracic aorta, which by its pressure produced such destruction of the vertebral column as almost, if not entirely, to expose the medullary canal.*

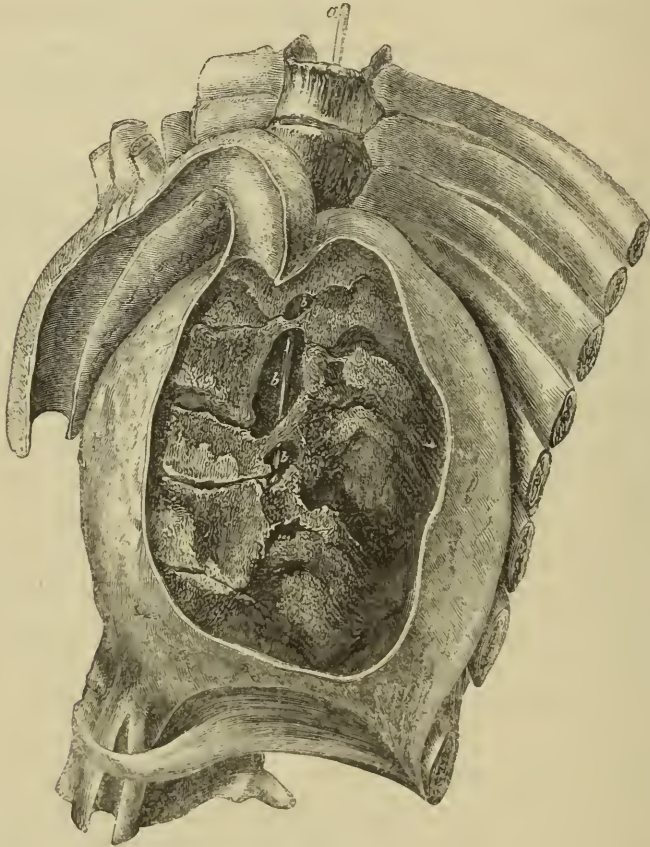
The sac *in a dry state*, after preparation, measured five inches and a-half by four inches and a-half. Commencing an inch below the left subclavian artery, it projected about half-an-inch to the right of the bodies of the vertebræ; whilst to the left, it so extended as to elevate and produce absorption of the lower ribs. It terminated close above the diaphragm. By its pressure, loss of substance was very considerably produced in the seven lower dorsal, and first lumbar vertebræ; the anterior and left sides chiefly, but the right side being also, to a slight degree, affected. The transverse processes and pedicles of the vertebræ, and the heads and posterior parts of several ribs are also greatly carious, and several of the lower affected vertebræ are so twisted, that their spinous processes are much inclined to the left side. *When recent, three of the ribs were found completely broken up into several portions, which were lying loose in the coagula of the sac.* The sac was also indented and divided into two parts by the œsophagus, which was in contact with the front of the aneurysm. By reason of the loss of substance in the vertebræ, three large communications (now in the dried state) are seen to exist between the interior of the aneurysmal sac, and that of the medullary canal; one communication being about one inch and a-half long and half-an-inch broad; the two others being almost circular, and of the size of a fourpenny-piece. No mention is made of these openings into the spinal canal, in the original post-mortem notes. Probably they were disguised by firm clots of blood. They certainly appear to be the direct result of absorption, and not of artificial removal of bone after death. The aneurysmal sac by reason of absorption of the ribs on the left side, projects considerably beyond the level of their posterior surfaces. (Woodcut 5.)

The preparation* was removed from the body of a patient of Dr. Seymour's, who has related the case and post-mortem examination in

* Now in St. George's Hospital Pathological Museum, No. 8, Sub-series v., Series xi.

his invaluable work on the *Nature and Treatment of Dropsy*.* It was there introduced as an example of the existence of extensive disease of

WOODCUT 5.



The Figure shows a large aneurysm of the descending aorta, which produced such extensive destruction of the bodies of the vertebrae, that on removing pieces of loose bone and coagulum, after death, the spinal canal was seen opened into in several places.

a, Piece of whalebone passed down the spinal canal.

b, The same whalebone appearing in the canal opposite the various communications between the aneurysmal sac and the spinal canal.

the great arteries, without dropsical effusion being produced. The notes of this post-mortem examination, given in full at the time of death, in Dr. Seymour's book, are by Mr. Cæsar Hawkins. I will only of course give a short *resumé* of the case described by Dr. Seymour. It seems that the patient had originally much pain in the cardiac region with short dry cough, but no expectoration. There was rapid and strong action of the heart, the pulse at the wrist not corresponding in power. Dr. Seymour was of opinion, in opposition to many who watched the

* Edition 1837, p. 13, Parts I and II.

case, that the action of the heart was caused by the efforts to overcome some obstruction either of a tumour or an aneurysm, and not from hypertrophy of the organ, inasmuch, as in the latter case, there could have been, most likely, anasarca of the legs.

In about a year's time, the aneurysm appeared at the posterior of the chest, and after death, the appearances were found as described above.

I brought the drawing of this specimen, by the kind permission of Dr. Seymour, under the notice of the Society, as helping to illustrate what I have previously referred to, in my remarks upon Case 8, as regards the pressure of aneurysms on bone. This is the only one of aneurysm with which I am acquainted, producing such complete destruction of the vertebræ, and making way into the cavity of the spine to such a degree.*

Dr. JOHN OGLE, 6th of December, 1859.

10. *Aneurysm of the lower part of the thoracic aorta, which burst into the substance of the right lung.*

History.—The specimen was removed from the body of a man, æt. 54, who for some time had been complaining of pains in the upper part of the back, and of sickness, and of a feeling as if the food did not pass lower than the epigastrium. He was admitted into St. George's Hospital, when a firm, resisting, but moveable swelling was found situated above the umbilicus, pulsating synchronously with the heart; and a whizzing, muffled sound was audible below the ensiform cartilage, where deep pressure caused much pain striking to the back. A loud mitral murmur was heard at the heart; but this was wholly disconnected from the sound heard over the aneurysm.

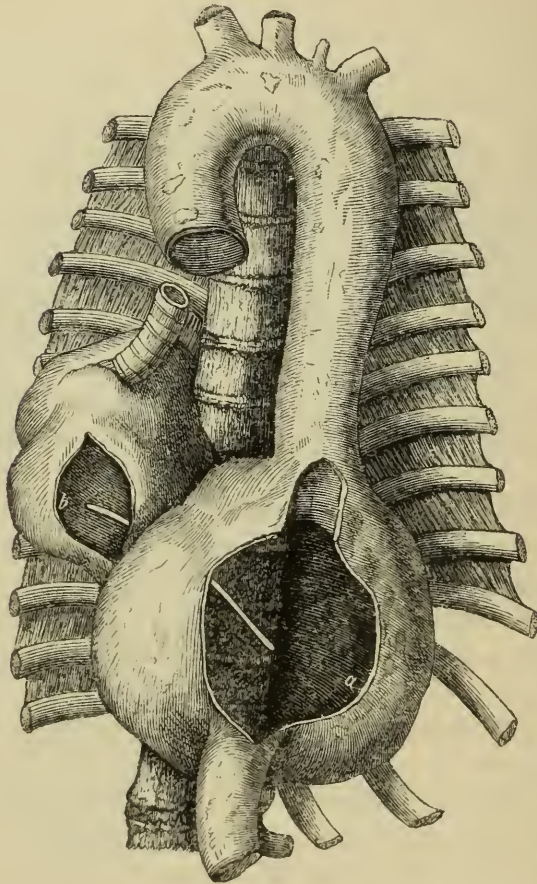
The patient referred his illness to a strain in the back which, a year previously, he had met with in carrying some heavy stones. This pain at that period lasted some time, and was relieved by pressure. Weakness in the back alone remaining, he returned to his ordinary work, until his present illness came on. After being in the Hospital some time with the above-described symptoms of aneurysm, he went out, and eventually died, after an attack of hæmoptysis, which accompanied symptoms of pneumonia.

Post-mortem examination.—An aneurysm, of about twice the size of a cricket-ball, was found at the lower part of the thoracic aorta. This communicated with a bi-ocular cavity in the base of the right lung, (Woodcut 6) the general substance of which was greatly disintegrated. The cavity in the lung communicated with one of the minute bronchial tubes. The coats of the aorta, generally, were the seat of

* The specimen now exists, as Preparation No. 10, Sub-series v., Series xi. in St. George's Hospital Pathological Museum.

calcareous and atheromatous deposit, and the arch of the aorta was

WOODCUT 6.



Represents the aneurysmal dilatation of the thoracic aorta, communicating with a cavity in the right lung.

dilated. The heart itself was large and fatty, its walls being thinned, and the left auriculo-ventricular orifice was dilated.

Remarks.—In this case, we have an instance of one of the least common terminations of thoracic aneurysm,—that is, bursting into the substance of the lungs. The symptoms, and the post-mortem appearances, showed that the aneurysm had caused pneumonia in the neighbouring part of the lung; but either the processes connected with the final rupture of the aneurysm were so rapid, or the plastic efforts connected with the pneumonia, which should have been conservative, were so feeble, that the sac burst before it could become, as it were, sealed.

The fact that pressure on the part affected at the onset gave relief, and that the patient appeared clearly to trace the formation of the aneurysm to a "strain," is of considerable interest. With regard to the last point, it may be well to observe, that several cases are on record, confirming the supposition that a "strain," or violent muscular effort, may suffice to occasion injury to the parietes of large blood-vessels. Thus, arteries and veins have been known to become completely ruptured in this way. Of course, partial rupture, or tension only, may originate aneurysm or dilatation of portions of the arterial parietes.

Dr. JOHN OGLE, 6th of December, 1859.

11. *Communication between the pulmonary artery and aorta.*

This specimen came from a child, who was under the care of Dr. Whitley, at the Surrey Dispensary. When first seen at the end of July, 1859, she was four months old, and was then excessively ill, being emaciated and having considerable dyspnoea; also a loud and rough systolic bruit was audible at the base of the heart, and over the greater part of the chest. The mother stated, that it was as stout as an ordinary child at birth, and appeared otherwise healthy, with the exception of having some difficulty of breathing. When about six weeks old, however, it began to lose flesh and the dyspnoea increased. These symptoms continued, until at last anasarca supervened, when the case had much the appearance of one of renal dropsy, but no albumen was found in the urine. It died when about eight months old. The heart was then removed for examination. Externally it was of about the usual size, but having the right ventricle developed rather in excess; the pulmonary artery was larger than usual at its commencement, and projected outwards; the aorta on the other hand, was almost hidden by the pulmonary, but was of ordinary size in its ascending portion; the arch, however, was considerably contracted at the part where the vessels are given off. On opening the pulmonary artery and aorta, a large opening was seen between them; this was quite round with smooth edges, and capable of admitting an ordinary goose-quill, and was situated midway between the valves and the arteria innominata. The ductus arteriosus was closed; a slight valvular opening existed between the auricles. There was no trace of disease or inflammatory action about any part of the organ. Judging from the large size of the pulmonary artery and contraction of the arch of the aorta, together with the absence of lividity during life, and presence of dropsy, it would seem tolerably certain, that the blood passed from the aorta into the pulmonary artery. The case is remarkable, and differs from the ordinary examples of malformation of the heart, in being one of simple arrest of development, and showing no evidence of

disease or contraction of any of the orifices which could afford a theory as to its production. Here it would appear, as if some cause had operated simply to prevent the usual division of the bulbus arteriosus which exists in early foetal life. Dr. WILKS, 20th of December, 1859.

12. *Extensive laceration of the internal coats of the ascending aorta.*

This case occurred in the practice of Mr. E. H. Galton, Jun., of Brixton. The patient was an elderly woman, æt. 62. She had been in service in her younger days, but for many years past had worked hard at a mangle, had subsequently married, but had now been a widow four years. There was no history of any injury, nor any severe illness, and she had never had rheumatism. Her health was good until three years ago, that is, three years before her death, when she had a fit which left her paralyzed; from this, however, she had recovered, so as to be able to walk several miles a day, although she complained at times of oppression at the chest, and some dyspnoea. On the 9th of December, she paid a visit to some friends and returned home in the evening, going to her bedroom, which was up four pairs of stairs, as usual; on reaching it she fell down insensible, but had no paralysis accompanying the fit. She soon recovered, and on the following day she complained merely of pain in the chest and sickness; she continued to improve, although she had not left her bed, when on the evening of the 14th of December, her attendant, having left the room for a short time, found her quite unconscious, and she immediately afterwards expired.

Post-mortem examination revealed nothing remarkable, excepting as regards the heart.

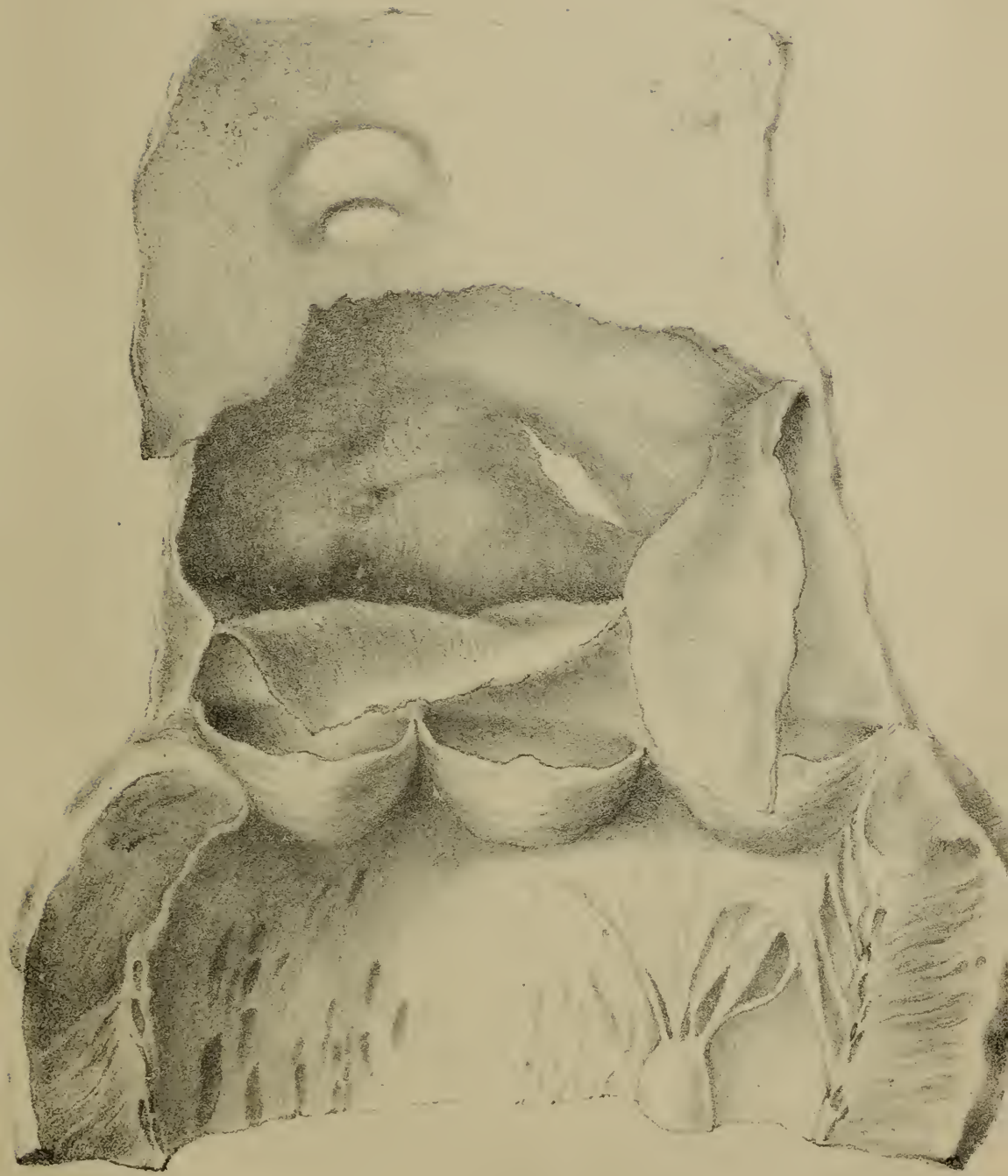
On opening the pericardium, this sac was found distended with coagulated blood. The heart itself was removed, and brought to me for examination.

The first thing observable was a long slit in the ascending aorta, which was very thin and bulged outwards considerably; on placing the finger in the aorta instead of discovering an aneurysmal sac as was anticipated, the inner coat was found projecting in shreds into the interior of the vessel. The vessel was opened along the lesser curvature, when most extensive lacerations of the aorta were discovered (Plate III.), separating the inner and middle coats from the external, allowing the former to hang into the interior, and the blood to have collected between them, constituting indeed a dissecting aneurysm. These lacerations extended nearly around the aorta and principally on the convex side, and proceeded from a point situated in front of the vessel, and about an inch above the aortic valves. They were principally three in number, the first was situated about one inch and a-half above the valves, and run

DESCRIPTION OF PLATE II.

The Figure illustrates Dr. Wilks' case of Extensive Laceration of the Internal Coats of the Ascending Aorta, p. 58.

The state of the parts is shown as revealed on dissection : the internal and middle coats dissected from the external coat, on which a few fibres of the middle coat, towards the lower part, are seen : also the sharp jagged edges in the line of rupture, and the slit in the external coat.



outwards around the vessel on its convex side, and was one inch and three-quarters long; the second rent was almost parallel to this, and was two inches and a-half long, and reached nearly all around the aorta, these two rents were joined at one end by a longitudinal fissure, and owing to the separation of the coats from one another, the portion of internal and middle coat between the lacerations hung as a flap into the vessel, this flap being rather more than an inch in breadth. From the point where these two transverse fissures started, the longitudinal one proceeded upwards as high as the left carotid artery. These lacerations were evidently recent, the edges being quite sharp; the lower one showed an equal division through both internal and middle coats, but the upper one appeared as if the flap before spoken of had been forcibly torn up, and thus the fibres of the coats were very prominent, and the internal coat was stripped off the portion of vessel above for some distance. These lacerations had involved only the internal and middle coats, the external being quite separated from them, very thin, bagging outwards, and capable of containing an ounce or two of blood; the separation extended quite round, except to a longitudinal line corresponding to the lesser curvature of arch, and its line of contact with the pulmonary artery; here although blood had infiltrated, a perfect separation had not occurred, otherwise the whole external coat of the ascending aorta would have been detached; this separation extended downwards behind the valves to their very base, and upwards on the greater curvature as high as the left carotid; on lesser curvature, somewhat below this; on lifting up the inner lacerated coats, the external was seen bulging outwards, and in this was a longitudinal opening an inch long, through which the fatal hæmorrhage had occurred. The separation between the coats was tolerably perfect, the external having only a few fibres of the middle one upon it at its lower part; above this the separation was very distinct. The sac or space between them was empty, with the exception of a little recent coagulum on the side next the pulmonary artery; there was no trace of fibrin or old clot in any part. The aorta generally was atheromatous, the valves slightly rigid, the coronary arteries diseased, and the muscular tissue of the heart somewhat fatty. The morbid condition was much less than often witnessed in the blood-vessels, and probably not much greater than the ordinary senile changes which occur at this age would account for.

Judging from the appearances presented by the aorta, from the freshness of the lacerations and absence of old coagulum, there could be little doubt that the mischief was all very recent, and coupling this with the time of the woman's illness, five days, it is most probable that the whole occurred in this short period. In most cases of dissecting aneurysm, the fatal termination is somewhat remote from the time of its

occurrence, but in this case, it was not so from the process being different, for the laceration did not, as usual, occur first, and the separation of the coats afterwards, but here a further laceration must have occurred as the separation went on. It is thus, probable, that on the night of the *fit*, a slight laceration of the internal and middle coats occurred, and that blood became effused between them and the external one; that, subsequently, as the dissection of these coats proceeded and more blood became effused, the lacerations progressed further and further, until they had nearly encircled the arch, and that this also was promoted by the force of the heart in driving the blood into the vessel, and the attempts at contraction of the latter. At last, the external coat could no longer bear the pressure, and burst into the pericardium.

Dr. WILKS, 20th of December, 1859.

13. *Ruptured aortic valve. Great hypertrophy of the left ventricle.*

S. M., a shipwright, æt. 37, was admitted into the City of London Hospital for Diseases of the Chest, on the 9th of December, 1859. He stated that he had laboured under the existing symptoms for seven months, but could not give any explanation of the origin of his illness. He had never suffered from rheumatic fever. At the beginning of his illness, he had urgent cough, attended by expectoration, and during the last three months had been unable to work, in consequence of great and increasing dyspnœa. After some time, œdema of the legs and face supervened, and slowly increased, his strength rapidly failing. He frequently suffered from nausea and vomiting.

On admission, he was much exhausted; his face puffed, anxious, and sallow; the legs and feet œdematous and tense. He had constant nausea, frequent cough, hurried and sighing breathing. His sleep was much disturbed. There was some tenderness over the hepatic region; the bowels were confined, and the tongue somewhat red; the urine scanty and slightly albuminous.

The chest was throughout resonant on percussion, and the cardiac region prominent. The impulse of the heart was greatly augmented, and its systole attended by a loud murmur at the apex. This extended to the centre of the sternum, and was then associated with a diastolic bruit, which masked entirely the second sound of the heart. The pulse was large, and distinctly regurgitant in character. The œdema extended; the genitals became swollen; the dyspnœa urgent; and the cough almost constant, and attended by copious bloody expectoration. His anxiety and restlessness became very distressing, and his pulse very feeble, and he died, apparently, by syncope on the 20th.

Post-mortem examination.—The liver was congested. The lungs

were greatly congested, and presented numerous apoplectic effusions; otherwise healthy. The kidneys were not examined under the microscope, but did not present to the naked eye evidence of anything more than congestion. There was slight serous effusion in both the peritoneal and pleuritic cavities. The heart was greatly enlarged, the left ventricle being enormously hypertrophied, and the mitral orifice much dilated, but the valves healthy. The aortic middle valve-flap was ruptured at the base.

Dr. R. BENNETT, 17th of January, 1860.

14. *Extensive pericardial effusion, of long standing.*

E. H., æt. 14, was admitted, under Dr. Wilks' care, into Guy's Hospital on the 3rd of October, 1859. The lad said that he had had scarlatina or rheumatism in the month of April, and had not been well since. His breath was short, and he became dropsical; he was tapped in the abdomen two weeks before admission. The case appeared to be one of heart disease; the abdomen was enlarged by fluid, and the legs were anasarcaous; the chest, on percussion, was found to be universally dull in front on the left side, excepting towards the apex, and, behind, the respiration was tubular. The heart's sounds were very indistinct, no bruit existing. It was thought, from the lapse of time since the acute disease in the chest, that although, no doubt, pericarditis existed, yet that the physical signs were due to pleuritic effusion. Various means were tried to relieve the lad's symptoms, but the dropsy remained until the cold weather set in, when it rapidly increased; the ascites being then considerable, and the boy very ill, paracentesis was again performed on the 31st of January; soon afterwards, peritonitis set in, and death occurred in four days. Throughout the whole period of four months of his stay in the Hospital, the physical signs in the chest remained the same.

The *post-mortem* examination showed acute general peritonitis, also very recent pleurisy on the right side; the lung condensed, but otherwise healthy. Nearly the whole of the left side of the chest was filled with the distended pericardium; the sac reached to the parietes, and was firmly adherent to them; only a small portion of lung could be seen above, the organ being forced upwards and inwards against the spine. When the pericardium was opened, it was found filled with tolerably clear serum, amounting to about a pint in quantity, and the sac, indeed, would have been capable of holding three such hearts as the one contained in it. The pericardial sac was immensely thickened, being several times as thick as natural. This was due to new inflammatory deposit of various ages, forming fresh layers upon it. The membrane, as a whole, was firm and tough; but the most internal layer,

though far from recent, was tolerably soft, and could be easily torn off from those below. The same kind of softish lymph covered the heart itself, and was scattered in an irregular manner, and with different degrees of thickness, over the organ. On stripping this off, several firm adventitious layers were found beneath, which could be easily separated into three or four distinct layers. The innermost one was firmly adherent to the serous layer; the latter itself was thickened by the incorporation of lymph, and encroached slightly upon the muscular tissue beneath. The microscope showed that the latter was penetrated by fibrous tissue to a considerable depth. The heart itself was small for the size and age of the patient, and appeared as if it had been strangled by the firm coating of lymph upon it. The valves and endocardium quite healthy.

The interest of this case is in the chronic nature of the affection, and its mode of causing death, by obstructing the cardiac circulation, and so producing the ordinary symptoms of heart disease. The author's experience of chronic pericarditis has been, that the disease has never advanced beyond three or four months, when either death has occurred, or curative adhesions have taken place; and, even in the former case, the chronic nature of the affection has been shown by the constantly fresh addition of inflammatory exudation to the previously organized layers, and not by fluid effusion. He has never before met with a case of effusion which had a duration of nearly ten months; and that this was the period of its existence is evident from the history and symptoms, as well as from the physical signs during the last four months, when under the author's care.

Dr. WILKS, 7th of February, 1860.

15. *Aneurysm of the thoracic aorta, which produced gangrene of the upper lobe of the left lung, and terminated fatally by bursting into the pericardium.*

H. B., æt. 32, a footman, was admitted into St. George's Hospital, on the 16th of November, 1859. He had enjoyed good health up to six months before his admission, when he was suddenly seized with headach and vertigo, and fell to the ground faint, and almost senseless. From that time he had been subject, more or less, to headach and vertigo. About the beginning of October he became hoarse, and began to suffer from fixed pain in the spine at the junction of the neck and trunk; also from pain in the left shoulder, extending down the left arm, numbness of the left arm, and pulsation immediately above the left clavicle. There had not been any cough, hæmoptysis, or dysphagia.

On admission his aspect was healthy, but somewhat distressed; his skin

was natural; his tongue clean; bowels regular; urine normal; appetite good. Pulse regular, and equal in force and volume at the two wrists; pupils moderately and equally dilated. The heart's action was regular and its sounds normal, but over the whole of the upper half of the left chest a diffused pulsation was perceptible. The superficial veins of the chest were in a natural condition, but immediately above the left clavicle they were turgid and dilated. There was considerable fulness in the left supra-clavicular region and diffused pulsation was perceptible there; and on firm pressure, above the collar-bone, a deeply-seated pulsating tumour could be readily distinguished. A slight systolic murmur was heard on placing the stethoscope above the clavicle. His chief complaint was of pain referred to the sternum, and to the spine at the junction of the neck and trunk. Strict rest was enjoined, a belladonna plaster was applied to the region of the heart, and a draught was given containing digitalis and tincture of hyoscyamus. For a time under this treatment he appeared to improve; the pain decreased, his voice became less husky; the pulsation above the clavicle became less forcible, and the murmur ceased. But at the beginning of December he began to suffer from cough, and on the 7th, had slight hæmoptysis. This did not recur, and as his general health was much improved, and he was anxious to return home, he was made out-patient on the 9th of December. For about six weeks after his return home he went on comfortably, without any notable change in his symptoms. His cough was very slight and did not distress him; there was seldom any palpitation of the heart, and the pain on the left shoulder continued easier than on his admission to the Hospital, though the numbness down the arm was considerable. The hoarseness, however, continued as before, and so did the pain at the junction of the neck and trunk.

On the 20th of January, he had a feverish attack, preceded by rigors, and followed by incessant cough, with profuse blood-stained sero-purulent expectoration emitting an intensely fetid gangrenous odour. Bark and ammonia, wine and brandy were given to counteract the depression by which these symptoms were accompanied, and for a time the tendency to sink was stayed. On the 1st of February, he was again moved to St. George's Hospital, and he gradually expired early on the morning of the 2nd.

Post-mortem examination.—The body was found well-formed and in good condition. On opening the thorax, the pericardium was seen to be greatly distended and of a dark colour; when it was laid open the distention was found to be due partly to serum, and partly to the presence of a large and recent clot of blood, which entirely filled its cavity and enveloped the heart. The clot weighed fourteen ounces and a-half. At one part in its surface it was decolorized, but quite soft. A large

aneurysm occupied the whole of the upper part of the chest, and in the mesian line extended from the front to the back, producing a slight depression on the inner surface of the sternum, and deep erosion of the three upper dorsal vertebræ, leaving the cartilages unaffected. The principal part of the tumour was situated above the upper border of the transverse portion of the arch of the aorta, but the opening into it from the aorta extended from about an inch above the semilunar valves to the end of the transverse portion of the arch. The sac, which was lined to the depth of about an inch by old laminated clots, communicated with the pericardium by a ragged opening at the upper part of the pericardial bag. This opening after some manipulation, readily admitted the index-finger, but it was probably much smaller during life. The trachea and œsophagus passed down in a deep groove at the back of the tumour. They did not manifest any signs of pressure, but the trachea was blood-stained, and on sponging, its mucous membrane was found much congested. The great branches of the arch of the aorta opened out of the aneurysmal sac at various parts, separated by much larger intervals than in health. The innominate and the left subclavian arteries were quite healthy, but the left carotid was coated by adherent coagulum of a dusky-red colour as high as it was traced (about two inches). Its cavity, however, did not appear to be closed. The sac adhered closely to and pressed upon the left lung, and the greater part of the upper lobe of this lung was in a state of gangrene, forming foul fetid cavities with shreddy walls, one of which was larger than a walnut. Around the gangrenous cavities the lung was consolidated by inflammation, and small abscesses were scattered through the inflamed part. On detaching the clot from the sac of the aneurysm in this situation, a probe passed into the cavity of the lung, but the clot had formed a barrier during life, so that no communication had taken place between the aneurysm and the gangrenous cavity. The right lung was healthy. The right pleural cavity contained a small quantity of recent lymph at its lower part. The left pleura was healthy. The heart was somewhat hypertrophied, but its valves were healthy: the whole of the thoracic aorta was extremely atheromatous: the abdominal aorta only slightly so. The liver was somewhat "hobnailed:" the gall-bladder large: the kidneys were also large (one weighed eight ounces and a-half) and firm, and their capsules were slightly adherent.

Dr. FULLER, 21st of February, 1860.

16. *Extreme dilatation of the auricles, with accumulation of laminated coagulum in the left, resulting from obstructive disease of the mitral valve.*

The following case, in its history, is one only of ordinary heart affection; yet it becomes interesting, from showing to what an extent the auricles may get dilated, in consequence of obstructive disease of the mitral valve; how the dilated auricle, immediately behind the seat of obstruction, may (when the circulation gets languid, and the expanded walls unequal to their increasing duties) become practically an aneurysm, and, like an aneurysm, filled with laminated clots; and how, lastly, the actual suppression of an auricle may add nothing,—at least, nothing special,—to the symptoms already arising from valvular disease.

Dilatation of the auricles is, of course, the natural sequence of mitral disease; but I have never seen it assume anything like the proportions exhibited in the present example. Laminated coagula might reasonably be looked for in cases of extreme mitral obstruction; yet their presence must be rare, for this is the only instance in which, during a ten years' pathological experience, I have met with them. That the virtual absence of the auricle in the present case exerted no marked or peculiar influence over its progress was due, doubtless, to the extreme contraction of the mitral orifice, rendering unnecessary any supply of blood beyond that furnished directly by the pulmonary veins.

E. L., a single woman, æt. 36, was admitted on the 9th of April, 1859. She stated that she had enjoyed good health up to eighteen months ago, at which time she was laid up with severe rheumatism in the Chester Infirmary, and was there blistered over the præcordial region. She had suffered from short breath, palpitation, and cough ever since. Ten weeks before her admission into St. Thomas's Hospital, anasarca made its appearance for the first time; and this, together with the previously detailed symptoms, gradually increased in severity. The catamenia have been absent twelve months. On admission, she exhibited all the symptoms of advanced mitral disease; there was extreme anasarca; great lividity of face; cough, with frothy serous expectoration; forcible, but irregular action of the heart, with a systolic murmur at the apex, and inability to lie on the left side. She died on the 28th of April, the twentieth day of her sojourn in the Hospital.

Post-mortem examination.—There was extreme anasarca. On opening the chest, the pericardium was found to occupy the whole of the space bounded superficially by the sternum and costal cartilages. It contained between a pint and a-half and two pints of transparent serum, but was otherwise healthy. The heart was very large; but its largeness depended less on hypertrophy of the ventricles, than on dilatation

of the auricles, both of which (but more especially the right) projected while the organ was still *in situ*, in a very remarkable manner. There was considerable dilatation, and some hypertrophy of the right ventricle; but the left seemed of normal dimensions. Both were nearly empty. All the valves, except the mitral, were healthy. The latter was thickened, nodulated, contained much earthy deposit, and bounded an orifice admitting scarcely the tip of the little finger. Its chordæ tendineæ also were thickened and shortened. Both auricles, including their auricular appendages, were uniformly and enormously dilated, each being capable of holding an adult fist; and their walls were somewhat thickened. The right auricle was full of ordinary recent clot; the left was distended by distinctly-laminated coagula, identical with those commonly found in aneurysmal cavities. These coagula formed two perfectly distinct masses, one extending from the auricular appendage backwards, the other forwards from the posterior and inner part of the cavity. They were slightly adherent to the parietes, and in contact with one another by their free surfaces, which were, consequently, flattened. The cavity of the auricle was thus obliterated, or, at least, reduced to the imperfect and irregular channel, bounded by the mutually-compressed masses of coagulum. The pleuræ presented a few old adhesions. The right contained a pint of transparent serum; the left a pint and a-half. The lungs were somewhat compressed, and airless in their most dependent parts. Both presented, in addition, a few masses of deep-red, carnified tissue. There was an excess of secretion in the bronchial tubes. Both pulmonary arteries and veins were healthy, and free from any abnormal amount of clot.

The liver was large, deeply and irregularly congested. The kidneys also were congested. The Fallopian tubes were dilated into cysts; but all the other viscera were perfectly healthy.

Dr. BRISTOWE, 21st of February, 1860.

17. *Extensive disease of the tricuspid valve.*

This specimen came from a man, æt. 44, who was under Dr. Wilks' care in Guy's Hospital. He was a small cachectic-looking man, and sought for admission on account of his cough. He was examined on entrance, rather superficially, with a number of other patients, and nothing was heard in the chest but bronchial râles; there was nothing remarkable about the sounds of the heart to direct especial attention to that organ. On a second visit to the ward, a few days afterwards, he was so little ill, that he was up and dressed, standing at the side of his bed, and the remark was made that he was scarcely ailing enough to be a Hospital patient. Before he was seen again he died suddenly in his bed.

On further inquiry as to his antecedents, it was found that he had been rather a delicate man, had lived hard and had had syphilis, but never rheumatism.

On *post-mortem examination*, no disease was found except in the heart. The organ was quite natural in external appearance, both as to shape and size. Internally the left side was quite healthy; but on opening the right auricle the tricuspid orifice appeared quite closed by two large masses of vegetation attached to its edges. These were each as large as a small walnut, and springing from opposite sides of the valves met together and quite closed the orifice, when separated there was but the smallest chink between them. They were attached entirely to the auricular side of the valve, and thus projected upwards, not being at all seen from the ventricle below. Their surface was quite smooth and rounded showing their age, and they had no recent vegetation or coagulum attached to any part; they thus appeared more like new growths or tumours than ordinary vegetation. They were very firmly attached, but on separating a portion the endocardium beneath was seen to be roughened and ulcerated, indicative, no doubt, of the primary inflammatory process which had determined the deposition of the fibrin. The right ventricle was healthy. The pulmonary artery and its branches were carefully examined in order to discover if any portions of the vegetation had entered the vessel, but none could be found. Although, as above stated, no especial attention was directed to the cardiac sounds, yet if a bruit of any intensity had existed it must have been heard. Judging from the site of the disease, we apprehend that none existed.

Dr. WILKS, 20th of March, 1860.

18. *Rupture of the right ventricle.*

History.—E. B., æt. 64, was under treatment since July of last year, for dropsy of the lower extremities and occasional attacks of orthopnoea and angina pectoris, the results of heart disease. There was præcordial dulness to a great extent, and a loud murmur (*bruit de scie*) replaced both sounds of heart, being heard loudest over the base, and propagated along the course of the great vessels. Under the third costal cartilage, about an inch to the right of the sternum, this double bruit was very loud, and there was also a visible pulsation in this position, so that at first aneurysm of the aorta was suspected. Repeated and more careful examinations, however, led to the belief that there was no aneurysm. The heart's action was tumultuous and irregular, and the pulse at the wrist small and intermitting. The urine was scanty, high-coloured, and of acid reaction; specific gravity 1018. It contained lithates and purpurates; no albumen nor tube-casts. The tongue was foul. Much relief was

afforded by puncturing the swollen limbs thus allowing the escape of fluid from them, by acting on the bowels, skin and kidneys, and by supporting the patient's strength. About a week before death, however, the kidneys failed to act, the dropsy increased, and there was effusion into the cavities of the pleuræ and peritoneum. Death occurred suddenly on the morning of the 7th instant. It was not ascertained that the patient had ever suffered from rheumatic fever. She had been a nurse in the Royal Hospital, Greenwich, for the last ten years—a hard-working, temperate woman. She had a well-marked arcus senilis on each cornea.

Post-mortem examination.—The pericardium contained two ounces of dark fluid blood, which had escaped from a rupture in the right ventricle, about half-an-inch in extent, near the septum, and about midway between the base and apex of the ventricle. All the cavities of the heart were distended with black coagulum; when emptied, it weighed thirty ounces. The right auricle was dilated and thinned, and, in one portion of its free wall, almost perfectly transparent. The walls of the right ventricle were found thinned, its cavity dilated, the fleshy columns prominent, and a rupture existed on its anterior surface. The left auricle was dilated, and its walls were thinned. The cavity of the left ventricle was enlarged, and its walls were thickened; the fleshy columns were hypertrophied. The mitral and tricuspid valves were normal. The aortic semilunar valves were incompetent, and allowed water to flow through; their free and attached borders were hard and thickened; the sinuses of Valsalva were dilated into pouches. There were extensive atheromatous and cretaceous deposits on the inner coats of the aorta. The coronary arteries were ossified and patent; the right was a hard bony tube, and more diseased than its fellow. The muscular tissue of the heart was found to be in an advanced stage of fatty degeneration. The pleuræ contained about two pints of fluid; the lungs were healthy; the liver pale; the spleen weighed three ounces and a-half. The kidneys were large and healthy; the peritoneal cavity contained a little fluid.

Dr. Davis stated that this was the fourth case of death from rupture of the heart which he had seen lately. Two of them were of the right ventricle, and one of the left, and one of both ventricles. The last occurred in the case of a Krooman in Africa, who died suddenly after violent exertion at a regatta. In all these there was fatty degeneration.

Dr. F. W. DAVIS, 20th of March, 1860.

19. *Largely open foramen ovale, without cyanosis.*

The specimen was removed from the body of a female, æt. 16, who

died in St. Thomas's Hospital, in March, 1860. She was first taken ill in September, 1858, while residing at Luton, in Bedfordshire. She came up to Town, and was so ill for the first six months of 1859 as to be incapable of leaving the house or following her occupation,—the straw-plait. She suffered, at the time, from catamenial irregularity, and symptoms of general debility. In the summer she recovered, so as to be able to resume her occupation, and continued better till the beginning of the present year. She applied at the Victoria Park Hospital in February, and was admitted into St. Thomas's on the 16th of March. While under observation, she was obviously sinking rapidly, under what appeared to be acute miliary tubercle. She had great difficulty of breathing, cough and expectoration, and stated that she had occasionally spat a little blood. There was general deficiency of the resonance on percussion at the chest, especially the upper parts, with the usual signs of bronchitis; and she was emaciated and much prostrated. She died on the 22nd of March.

On inquiry after death, it appeared that she had always been delicate, having had fits in early life. After six years of age the fits ceased and she became stronger; but, though possessed of considerable intelligence, she could not be taught to read, from the pain in the head occasioned by mental exertion. Her father died of some cerebral affection, when seventy-two years of age; and the three other children of her parents all died in early life. There were never any symptoms of cyanosis, nor had anything at all peculiar in her appearance attracted the notice of her mother; but it was mentioned, that during her last illness she suffered occasionally from palpitation, especially on active exertion; and when hurried, as by ascending stairs, she became breathless, faint, and somewhat dark in the face.

On *post-mortem examination*,* the left pleura was found firmly adherent above, and the lung in the rest of its extent was invested by a film of false membrane. There were also adhesions on the right side, which were more extensive and of older date than those on the left.

Both lungs were the seat of crude tubercular deposit, more abundant above than below, and more advanced on the right than on the left side. The tubercles, in many places, were breaking down; and in the left apex there were two or three cavities, each about the size of a chestnut. The intervening lung tissue, especially in the upper lobes, was nearly solid and airless, and infiltrated by inflammatory deposit. The bronchial tubes were full of muco-purulent secretion. The larynx and trachea were healthy.

The peritoneal surface was covered by fibrous tissue, the result of chronic inflammation, which produced firm adhesions between the liver

* From the notes of Dr. Bristowe.

and diaphragm, and covered the small intestines with irregular flocculi. On closer examination, the surface was found studded thickly with grey miliary tubercles, which were most abundant in the lumbar regions and over the intestines. Connected with the surface of the mesentery, and between the liver and diaphragm, there were, in addition to the miliary deposits, a few masses of crude tubercle, from the size of a horse-bean downwards. The spleen was rather large; the other organs healthy.

The heart, when removed from the body, weighed seven ounces and three-quarters avoird.; but the day after (when weighed by Dr. Peacock), was seven ounces and a-quarter avoird. The right ventricle was considerably dilated and the walls somewhat thicker than usual. The left ventricle was of natural capacity and its walls retained their normal width. The tricuspid valve, with the right auriculo-ventricular aperture and the pulmonic and aortic apertures and valves, were natural; but the left auriculo-ventricular aperture was small (giving passage only to a ball measuring thirty-six French lines in circumference), and the valves were white, thickened, and somewhat rigid. The auricles were both of large size, and the foramen ovale was entirely unclosed; indeed, there was only the mere rudiments of the valve, and the aperture freely admitted the passage of a shilling.

Dr. PEACOCK, *3rd of April*, 1860.

20. *Rupture of the femoral artery from violence. Gangrene.
Amputation of leg. Death.*

A thin, spare man, æt. 30, a gentleman's servant, in the country, was running across some fields on the 21st of February last, 1859, and jumped over a hedge or ditch. On alighting on the ground, he felt a sudden pain in the left leg. He went home, conscious that he had received some serious injury, and sent for Mr. Gage, of Williton. Twenty-four hours after, mortification of the toes of the left foot appeared. On the third day after the injury, Mr. Gage amputated the leg above the knee, the mortification extending. Again, however, it appeared on the stump, and, before long, the man sank from exhaustion. At the *post-mortem* examination, the femoral artery was found occluded by a firm clot, just about the origin of the profunda, part of the clot extending into that vessel also. As far as could be ascertained by a close examination of the preparation, no rupture of the internal, or other coat of the artery, could be detected.

Mr. THOMPSON for Mr. GAGE, *3rd of April*, 1860.

21. *Loose hydatid in the heart.*

This specimen was sent for exhibition by Mr. Henderson of Deptford, who was called upon by the Coroner to make a *post-mortem* examination of the girl in whom it was found. She was *æt.* 19, and had always enjoyed good health, never having had any dyspnœa, palpitation, or other symptoms attributable to cardiac disturbance. On the night of her death she had partaken of a hearty supper, soon after which she suddenly expired. No disease was found in any part of the body excepting the heart. On opening the left ventricle a loose cyst was seen of about the size of a billiard-ball; this contained a clear fluid, and was composed of a thick white external sac, and within, a soft translucent membrane like that of an ordinary hydatid. The surface of the latter was examined by the microscope and echinococci found upon it. At the apex of the heart was a hard opaque cartilaginous structure of about the size of half-a-crown, and here the muscular tissue was quite absent. On the inner surface this was cupped and corresponded in shape to the hydatid cyst; it was thus evident that the latter had long been situated upon this part. The pericardial surfaces themselves were not adherent. The hydatid cyst had, in all probability, been developed in the apex of the left ventricle, and during the progress of its growth had pushed forward into the cavity of the heart; it had thus for a very long time been almost free, judging from its surface, which presented no appearance of attachment in any part; it had probably, however, been slightly adherent, or it must have previously produced distressing effects. The final detachment, however, no doubt so obstructed the orifices of the ventricle that a fatal consequence immediately ensued.

There was also a small hydatid of about the same size in the liver.

Dr. WILKS, 17th of April, 1860.

22. *Specimens showing the deposition of calcareous matter around the heart.*

CASE 1.—*Hoop of calcareous matter encircling the base of the heart. Death by apnœa.*

The preparation consisted of a heart, showing a narrow ring of fibro-calcareous matter connected with the pericardium and embedded in the sub-serous tissues in the fossa between the auricles and ventricles. This entirely encircled the heart, but was not found in any other part. “*The coronary arteries and veins were natural.*”

The opposed layers of the pericardium were everywhere firmly ad-

herent.* The heart was very large, all its valves being hypertrophied and cavities dilated. The free edge of the mitral valve flaps were thickened, and the lining of the left auricle also thicker and more opaque than usual. Other valves, &c., healthy.

The abdominal organs were very congested.

History.—The specimen was removed from the body of a woman. M. P., æt. 17, who had had rheumatic fever four years before admission into St. George's Hospital, and also had ever since been subject to palpitation, which had been worse for six months.

On admission, the pulse was 120 and feeble, and the jugular veins were very distended. The heart's action was tumultuous, and a very loud mitral murmur was audible. The tongue was coated; the urine scanty and albuminous, containing casts of uriniferous tubes. She became worse, and died four days after admission.

CASE 2.—*Hoop of calcareous substance around the base of the heart.*
Death by coma.

The specimen consisted of the opposed layers of the pericardium perfectly adherent to each other throughout, and having connected with them, embedded in the adhesions, a complete ring of calcareous matter which encircled the heart, at a part corresponding to the fossa between the auricles and ventricles. The heart itself was natural as to its walls and cavities.† Some recently-formed fibrine was adherent to the ventricular surface of one aortic valve flap, and a larger quantity to the anterior flap and tendinous cords of the mitral valve. *The coronary arteries and veins were natural.* The liver was granular and otherwise distended. The spleen was very large, weighing one pound and a-quarter, and containing a large wedge-shaped mass of fibrine. The kidneys were also diseased.

A large quantity of clotted blood was found in the right cerebral hemisphere, originally extravasated into the right corpus striatum.

History.—The preparation was removed from the body of a man. J. H., æt. 30, who died in St. George's Hospital. He had caught cold two months before admission, and was suffering from ascites. The urine at first contained albumen, but soon after became quite free from it. He suffered much from epistaxis. He became comatose, and died about three weeks after admission into the Hospital.

* Preparation No. 2, *b*, Sub-series i., Series x, in St. George's Hospital Pathological Catalogue.

† Preparation No. 3 *b*, Sub-series i., Series x., in St. George's Hospital Pathological Catalogue.

CASE 3.—*Calcareous matter disposed around the heart, partly in a ring-like form, and partly in the form of plates covering the anterior and posterior portions of the right side of the heart.*

The specimen consisted of the heart with the pericardium attached to it in several places. At the largest circumference, *i. e.*:—corresponding to the horizontal fossa between the auricles and ventricles, a ring of calcareous substance, of about the thickness of a quill, was found incorporated with the reflected layer of the pericardium and the substance of the heart to which the pericardium was adherent, and almost, but not completely encircling the heart; being at one place interrupted, and as it were jointed. Besides this, two large plates of calcareous matter existed in connection with the pericardium, as it covered and was adherent to the anterior part of the right auricle and ventricle on the one hand, and the posterior surface of the right auricle on the other hand. That piece of calcareous mass in front of the heart measured three inches and a-half by two inches and a-half in size. The deposit was as regards the surface, principally in the pericardium and its adhesions, as it could in many places be separated from the heart's surface, but still, in many parts, it penetrated so deeply into the substance of the heart's walls as to appear as if occupying the entire thickness.*

The coronary arteries and veins were healthy.

The microscope failed to show any true bone-structure in the calcareous masses above-mentioned.

The pleural membranes were extensively adherent, but the lungs were healthy. Some of the bronchial tubes were ossified as to their parietes, in patches. There was a very large quantity of fluid in the peritoneal cavity, and the serous membrane generally was very thick, by reason of old-standing fibrinous deposit. The liver was very contracted. Kidneys healthy.

History.—W. B., a male patient, *æt.* 57, died in St. George's Hospital, under Dr. Seymour's care. About twelve years before admission, he had a severe cough and dyspnœa, with pains in various parts of the body, followed by anasarca and ascites, caused by sleeping in a damp house. Since that time, he had been unable to lie on the left side. He had been tapped, and treated by various medical men; and also, about seven years before admission, had been in St. George's Hospital, with palpitation and ascites, and obtained complete relief, which lasted for some years. About five years before admission, the ascites and anasarca and palpitation returned, and he was again, for three or four times, in St. George's Hospital, obtaining relief from elaterium and

* See Preparation No. 1 *b*, Sub-series *i.*, Series *x.*, in St. George's Hospital Pathological Catalogue.

other drastic purges; but the abdomen was never completely emptied of fluid. He took also digitalis with cantharides, and small doses of the bichloride of mercury, with benefit. After being in the Hospital about three months and a-half, he had an attack of hemiplegia, the left leg being less affected than the left arm. The speech was also affected. Pulse, 100, and weak and irregular. About four days afterwards, the paralysis had almost quite disappeared, and the speech was greatly improved. Cough and dyspnoea became very troublesome, and the left arm and hand became very œdematous.

At this time the heart was examined, but nothing wrong was found, by physical examination, in connection with the sounds, &c. He gradually sank, and died about four months after admission.

Remarks upon this case, and the previous ones, Nos. 1 and 2.—With regard to the general subject of these calcareous deposits, forming plates or rings about the heart's surface, they would certainly appear to be far from common, as my experience of the dead-house in St. George's Hospital, after some years' observation, only furnishes me with the above-mentioned specimens, in addition to one which I brought before the Society in April, 1858.

I find, however, that a few specimens have been, in past years, exhibited to the Society, which may be enumerated as follows:—Thus, in Vol. III. of our "Transactions," p. 65, is a case described by Mr. Canton, in which, in the adherent pericardium between the auricles and ventricles, bony matter was deposited, forming a ring, which was, in one part, one inch broad, quite encircling the heart. This was in a patient æt. 11 years, who had had acute rheumatism.

A "second" case is described at p. 66 of the same volume, by Mr. John Wood. In this case, three large masses of bone existed in the pericardial adhesion, the chief one being "at the point where the organ rests on the diaphragm," being five inches wide, one inch and a-half broad, and extending round the organ. In this case, the pericardium was adherent throughout, and the osseous masses projected into the substance of the heart.

A "third" case exists in Vol. IV., p. 63, related by Mr. Robinson. Here, a large patch of ossific matter existed under the serous covering of the right ventricle, in the course of the coronary artery. In this instance, recent and old pericardial adhesions existed.

A "fourth" case will be seen in Vol. VII. p. 72, described by Dr. Quain. In this case, the opposed layers of pericardium were quite adherent in front; and the calcareous deposit connected with it was in some parts a quarter of an inch thick. The patient was a man æt. 91 years, who died from extravasation of blood into the brain and diseased

kidneys ; but of whose history nothing was known. Of this specimen, a report was made, accompanied by microscopical drawings, by Dr. and Mr. Salter, who remarked that the appearances of globular calcified masses and opaque interspaces observed therein, were the same as those often seen in so-called osteoids from the pleura and sections of ossified aorta, &c., &c.

A "fifth" case was the one to which I have above alluded as having been exhibited by myself in 1858. It is described in Vol. IX., p. 165. In this case, after death, along with extensive adhesion of the pericardium, a cyst containing blood was found beneath the visceral layer of that membrane, owing, apparently, to rupture of a branch of the coronary artery.

In all these cases, extensive adhesion of the two layers of pericardium was found in the part where the calcareous masses existed, as well as elsewhere ; and it is most likely that these masses were merely the results of the deposit of calcareous matter in pre-existing false membrane. But it is remarkable that, considering how common pericardial adhesions are, these calcareous masses should be so *uncommon*. May there not be some condition, of which we are ignorant, under which they make their appearance in ordinary "false adhesions?"

Of course, they are not confined to pericardial adhesions, as they may be met with in pleural or peritoneal adhesions, and in those formed between the membranes of the brain or spinal cord.

Thus, in Vol. II. of our "Transactions," p. 35, the case of a woman *æt.* 60 years is related by Dr. Burslem, in which the cavity of the pleura was obliterated by adhesions containing a plate of bone.

Again, in Vol. V., p. 35, Dr. Salter has described a specimen of ossific masses deposited in the pleura.

It is singular that, in the cases above alluded to, the presence of calcareous deposit is not confined to the mere surface of the heart. Thus not only, in the interesting case quoted above as being described in Vol. III. by Mr. Wood, but also in my third case described, the calcareous masses had penetrated deeply into the muscular substance of the heart, so much so as to occasion a passing doubt as to their origin by the conversion of simple pericardial adhesions.

I find that Hasse* speaks of the so-called ossifications of the aortic valves as extending to the endocardium, in the direction of the transverse groove of the heart, "constituting an imperfect circular border around the point of union between the walls of the auricles and ventricles."

It is worthy of remark, that this "transverse groove" is the very

* See his Work translated by the Old Sydenham Society, p. 136.

part where, for the most part, the calcareous matter in my cases was found, constituting rings or hoops.

Rokitansky* also speaks of the masses developed in the fibroïd exudation between the pericardial layers, as "*frequently extending to the texture of the heart itself, displacing the muscular bundles, and appearing as if developed within them.*" He also says, "that the thick, round, nodular masses are generally observed in the neighbourhood of the sulcus transversalis on the left side of the heart." He observes—
 "They are consequences of a former state of endocarditis, combined with pericarditis."
 Dr. JOHN OGLE, 17th of April, 1860.

23. *Aneurysm of the upper part of the ascending aorta, in connection with which variations in the size of the pupil had been observed during life, most probably from interference with the sympathetic nerve; pneumonia on the side corresponding to the aneurysm.*

History.—A woman, æt. 40, about ten months before admission into St. George's Hospital, had noticed a swelling a little to the right of the sternum, between the cartilages of the third and fourth ribs, following a certain degree of pulsation which was felt at that part. This swelling had increased until it reached the size of a hen's egg.

On admission into St. George's Hospital, the patient had much pain in the chest extending through the right shoulder to the right elbow; but from this, relief was obtained by lying down. The pulse was weak, but regular. A sharp diastolic click was audible over both scapulæ, and especially at the middle of the right one, and a week later, a systolic bruit was to be heard at the apex of the heart. The swelling increased much, and at last attained the size of a moderately-sized man's fist. It also extended downwards and to the left, and later still it extended as far as to the left of the sternum. "*During this time nothing was observable as regards the state of the pupils.*" About three weeks after admission, a decided "whirr" was heard over the aneurysmal swelling and crowing inspiration and orthopnoea came on. Loud crepitation was heard over most part of the chest, and the expectoration became frothy and muco-purulent; a loud systolic bruit became audible at the inferior angle of the right scapula, and both pupils were noticed as being "*rather dilated.*" The stridulous breathing increased. A few days later the "*pupil of the right eye*" became more enlarged, so as to contrast very notably with that of the left eye. The right arm became very œdematous, the breathing very laboured, and the pulse very feeble, until death took place.

* Vol. IV., p. 138, of the Sydenham Edition.

Treatment consisted of sedatives internally and externally, with slight expectorants, and occasionally bark and chloric æther.

Post-mortem examination.—It was found on dissecting the coverings of the chest, that the aneurysmal sac containing fluid and coagulated blood had given way, permitting its contents to come into contact with the pectoral muscles. Portions of these muscles and of the sternum were much absorbed, and the “*sternal end of the third rib was lying loose in the aneurysmal cavity.*” The sac which was of the size of a cocoa-nut, communicated by a circular smooth-edged aperture of the size of half-a-crown, with the upper part of the ascending aorta; and the aorta itself, from its commencement to where it became thoracic, was dilated to the size of a closed moderately-sized fist, having much atheromatous substance in its walls.*

The heart and its valves were healthy; marks of recent pleurisy existed on both sides of the chest, and the lower part of the upper lobe of the “*right*” lung was in a state of grey hepatization. The base of the right lung was in a state of red hepatization. Cretaceous masses were also found at the apex of the right lung.

The kidneys were slightly granular. The various other organs were natural.

Commentary.—This case was alluded to, but only very cursorily, no minute description being given, in the collection of cases which will be found in the “*Transactions of the Royal Medical and Chirurgical Society,*” † illustrating the effect of interference with the sympathetic nerve upon the pupil and other parts connected with the eye. In that paper I pointed out how certain tumours and growths, might in their several instances, by pressure upon the sympathetic nerve in their immediate vicinity, affect this portion of the nervous system diversely, producing, according to the degree or extent of pressure, an irritative or stimulant effect on the one hand, or a paralyzing and inhibitive result on the other; thus inducing a dilated or a contracted condition of the pupil of the eye: the iris being supplied, as regards its radiating fibres, from this source of innervation.

In the present instance, the pupils became affected as the aneurysm increased; and as the sac passed more over to the right of the median line than the left, so the sympathetic on the right of the vertebral column became more pressed upon, and the right pupil consequently more affected. It is worthy of note that the pressure did not so affect the sympathetic as to paralyze it, and thus induce contraction of the pupil; but it seems only to have stimulated it, producing dilatation. This result might, perhaps, be dependent on the sac being comparatively so low down

* This specimen now exists in St. George's Hospital Museum, as No. 37, Sub-series v., Series xi.

† Vol. XLI., p. 397.

in the chest, as not to injure effectively the sympathetic. Dr. Ogle drew attention to the fact, that in this case such alterations in the movements of the eyeballs or eyelids, or of the temperature of the skin, as were observed in many experiments in which the sympathetic in the neck was artificially injured, were unnoticed.

The case was very interesting also, as showing the destructive effects which by their pressure aneurysm may have upon the neighbouring tissues, especially osseous ones.*

Moreover, it was worthy of observation, that the pneumonia of which very marked remains were found after death, was on the *right* side, viz., that, corresponding to the aneurysm. May not this have been owing not so much to injury to the lung tissue itself, by pressure of the sac, as to interference with the nerves supplying the parenchyma or passing along the roots of the lungs, just as pressure by carcinomatous deposit upon the recurrent laryngeal nerve, was described by Dr. Budd † as producing a similar death by dyspnœa.

Dr. JOHN OGLE, 17th of April, 1860.

24. *Encephaloid disease of the heart and right lung.*

R. P., æt. 61, was admitted into St. George's Hospital, under Dr. Fuller's care, on the 7th of March, 1860. His employment was that of a labourer at gas-works, and he had enjoyed good health until within three months of his admission into the Hospital. At the commencement of that period, he began to suffer from wandering pains in the limbs, and slight cough; but, nevertheless, he continued at work until six weeks before his admission into the Hospital, when he was seized with acute pain in the chest, cough, and dyspnœa. These symptoms had increased gradually up to the time of his admission, and anasarca had commenced during the last three weeks.

When first seen by Dr. Fuller he was cold and pulseless; he was suffering from extreme dyspnœa and orthopnœa; his face was puffy and of a livid hue; and his extremities were much swollen and œdematous. He had frequent cough, with profuse bloody mucous expectoration. The whole of the right side of the chest was dull on percussion; the breathing on this side was very deficient; and, wherever audible, was of a tubular character, and the vocal resonance, both anteriorly and posteriorly, was more or less ægophonic. The heart's action was regular but rapid, the impulse weak, and the systolic sound short; but both sounds, on admission, were free from murmur. Subse-

* In connection with this subject, see description of the Thoracic Aneurysm, p. 54.

† "Transactions of this Society," Vol. 1858-59, p. 62.

quently, when the excessive rapidity of the heart's action had subsided, and the pulse had acquired increased force, a slight systolic murmur became audible over the whole of the præcordial region. The urine was albuminous. Under the use of dry cupping between the shoulders, blisters to the right side, calomel and opium, and diffusible stimulants internally, followed by expectorants and diuretics, he so far improved that the orthopnœa passed off, and he was able to lie down in bed; the pulse could be felt at the wrist, and beat regularly 88 per minute; the cough was much relieved; the blood disappeared from the sputa; the urine increased greatly in quantity; and the œdema of the upper extremities subsided. Shortly, however, the symptoms of distress returned, and speedily became aggravated; and the dropsy and dyspnœa gradually increased until he expired on the 23rd.

Post-mortem examination, thirteen hours after death. The body was anasarcaous; but the œdema was less remarkable in the lower extremities than in the face and arms.

Both pleural cavities contained a large quantity of serous fluid, and in the right there were some recent adhesions between the two surfaces of the pleural membrane. The left lung was compressed by the effusion into the pleura, but was otherwise healthy. The right lung was bound down by old adhesions of the pleura at its anterior and inferior part, and had been pushed down by the effusion in the pleural cavity, so that its apex was on a level with the third rib. Its structure was healthy, but much condensed by pressure. The root of this lung was entirely surrounded by a large mass of hard encephaloid disease, which extended about an inch into the substance of the lung, and also penetrated the substance of the heart throughout its entire thickness. This malignant tumour was of an uniform cream-colour, and, on section, yielded an abundant juice, in which numerous nucleated bodies were seen under the microscope.

The heart was large, and its cavities were dilated. The wall of the left auricle was about three-quarters of an inch in thickness, and so thoroughly infiltrated with the malignant tissue, that no trace of muscular structure remained visible to the naked eye. The microscope, however, showed that some fragments of muscle still remained. A small portion of the malignant deposit hung free in the cavity of the auricle, and several masses were deposited in the septum auricularum. A small portion also infested the upper portion of the walls of the left ventricle. The mitral and aortic valves were somewhat atheromatous. The pulmonary veins on the right side could not be found, being apparently embedded in and compressed by the tumour. The right pulmonary artery passed through it, but was pervious. The descending vena cava was in contact with it, but did not appear to be

compressed. The tumour extended backwards far enough to touch the œsophagus, but not to exert pressure on it.

The liver was healthy, but there was a white patch on its capsule. The capsules of the kidneys were adherent; the surface of the kidneys was excessively granular, and their cortical structure was much wasted. Numerous cysts were visible throughout their entire structure, and so were several deposits of fibrin. The bladder and prostate were healthy.

Dr. HENRY FULLER, 1st of May, 1860.

25. *Thickening and dilatation of the pulmonary artery, and its ramifications.*

J. E., æt. 59, was admitted into St. Thomas's Hospital under Dr. Barker's care, on the 29th of October, 1859. He had had slight œdema of the ankles twelve months previously. A month ago the legs began to swell, and afterwards the scrotum and abdomen. The urine became scanty, but not high-coloured; he had frequent epistaxis, and occasionally, he stated, slight hæmoptysis. He had been subject to cough for some years. His symptoms on admission were almost entirely those of severe bronchitis; but a systolic murmur was heard at the base of the heart, and also at the apex. He died on the 15th of November.

Post-mortem examination.—There was considerable anasarca. The pericardium was healthy, but contained nearly half-a-pint of serum. The heart was hypertrophied, weighing seventeen ounces and a-half; and the hypertrophy was almost, if not entirely, confined to the right side. The left ventricle was of moderate size, and its walls a little more than three-eighths of an inch thick midway between the apex and the base. Both aortic and mitral valves were perfectly healthy. The sinuses of Valsalva were a little dilated, and a few patches of atheroma studded their upper margins, but the rest of the aortic arch was healthy in every respect. The circumference of the upper limit of the aortic orifice measured two inches and seven-eighths. The right ventricle was much dilated, its parietes rather less than three-eighths of an inch thick at the base, and as usual in hypertrophy of this side, remarkably firm. The tricuspid valve was healthy. The pulmonic orifice appeared unusually large, especially at its upper margin; and the valves were stretched, and, at one or two of the angles, fenestrated. The circumference of the lower part of the orifice was three inches and three-eighths, that on a level with the angles of the valves four inches and three-eighths. The pulmonic sinuses were dilated; and the dilatation increased gradually and uniformly from the commencement of the pulmonary artery up to its bifurcation, immediately before which point its circumference measured

four inches and seven-eighths. The parietes were remarkably thick, and copiously studded with atheromatous patches. The auricles presented nothing unusual. The lungs were attached at all points by old cellular adhesions. They were smaller and heavier than natural, and on section found to be congested and sparsely crepitant. They presented here and there cicatrix-like patches of grey fibroid tissue. There was no appearance of emphysema. The bronchial tubes were healthy in structure, but contained much muco-purulent secretion. The pulmonary veins were healthy, but the branches of the pulmonary artery were universally and remarkably thickened, atheromatous and dilated. The thickening was general, and proportionally quite as great in the smaller as in the larger branches,—so great in fact, as to maintain them in a patent condition, and (in conjunction with the dilatation) to render them far more prominent objects on the sectional surface, than the bronchial tubes themselves. The atheromatous deposit was considerable in amount, existing in the form of patches of various sizes, and producing much unevenness of surface. The dilatation was very remarkable, and universal, but by no means uniform, so that the vessels, in addition to being generally enlarged, presented irregular dilatations in nearly every part of their course. The trunk of the right branch of the pulmonary artery measured rather more than three inches in circumference, and that of the left was scarcely, if at all, smaller. One of the branches in the right lung, not specially selected, measured, at a distance of two inches from the base of the organ, seven-eighths of an inch in circumference. A large branch going to the apex of the left lung, was filled by adherent partially decolorized coagulum.

There was a little fluid in the abdominal cavity, but the viscera, beyond being a little congested, were healthy. The aorta and its larger branches presented very little atheromatous deposit, and were in point of fact in a fairly healthy condition. Dr. BRISTOWE, *1st of May, 1860.*

26. *Extensive calcification of the arteries, with abnormal distribution of their trunks; with other examples illustrating the atheromatous and calcareous expressions.*

The subsequent cases are intended to illustrate some of the post-mortem changes which are noticed in those persons possessing the atheromatous and calcareous expressions, or a mixture of the two,—a subject which has been brought before the profession by myself in another place.*

The patient in the first case had the calcareo-atheromatous ex-

* On the Atheromatous Expression. By Geo. D. Gibb, M.D.—“Lancet,” 12th of May, 1860.

pression during life, and after death, all the arteries of the extremities were found extensively calcified,—a phenomenon peculiar to the calcareous expression,—and the heart and aorta much diseased from atheroma, together with some of the cerebral vessels, a peculiarity more particularly observable in the atheromatous expression. In Cases 2 and 3, the patients presented the calcareous expression simply; all the arteries of the extremities were calcified, whilst the heart and its great vessels were comparatively healthy, excepting the coronary arteries. Cases 4 and 5, on the other hand, were well-marked examples of the atheromatous expression,—the atheromatous changes being chiefly confined to the heart and its great vessel, as well as to the vessels at the base of the brain; whilst all those of the extremities were healthy.

These cases are selected from a considerable number, to illustrate the changes referred to in the two forms of expression, either singly or combined.

CASE 1.—A man, *æt.* 60, with the previous enjoyment of a fair share of health, possessing a mixture of the atheromatous and calcareous expressions, died of phthisis. Before death, the arteries of the wrist, and other parts of the extremities, were found to be hard tubes, and evidently in a state of calcification. A careful dissection of all the blood-vessels and internal organs was made, and the following circumstances were noticed:—

The heart was natural in size, with its structure extremely soft, and in a state of true fatty degeneration; the arch of the aorta was considerably dilated, and its interior was lined with large atheromatous patches, many of them converted into apparently true bone. It gave off four branches, instead of the usual three, the right carotid and right subclavian arising distinct from one another; the right carotid was also much larger than the left. The inner surface of the thoracic aorta was lined for some inches downwards by atheromatous patches; and so also was that of the entire abdominal aorta; the patches here, however, were in an advanced state of calcification. All the arterial trunks, with their ramifications, both of the upper and lower extremities, were in a state of firm calcification, the vessels were hard cylinders, and could not be compressed without distinct fracture. This condition was absent in the four vessels that sprang from the arch of the aorta, and did not involve those of the neck, but commenced in the axillary, on either side. The coronary arteries, and the smaller branches at the base of the brain were, however, in a similar diseased condition to that of the extremities. There was an abnormal division of both femoral arteries; that on the right side divided into two branches at Poupart's ligament, whilst that on the left divided into three branches,—some

anatomists might call it four, from the internal circumflex originating near the origin of the profunda. The drawings made from the specimens very well represented this deviation from the normal state of things. The left great ischiatic nerve divided into two branches on its emergence from the great sacro-ischiatic foramen, whilst the right great ischiatic was normal.

The lungs were firmly adherent to the pleura on both sides, as well as to the pericardium. A large vomica existed near the apex of the right lung; and both lungs were filled with miliary tubercles and carbonaceous deposits intermingled. The cartilages of the larynx, viz., the thyroïd, cricoïd, and arytenoïd, and some of the rings of the trachea, were calcified, mingled with atheromatous deposits. The parietal surfaces of the liver, stomach, spleen, and intestines were adherent to one another: the last were all glued together. The liver was fatty, so were the kidneys, and the surfaces of the capsules of the latter were much puckered. Some of the minute renal vessels were calcified. The supra-renal capsules were very large, but not diseased; their interior was more of a reddish-brown than the usual dark-brown colour. The spleen had two or three hard white bodies on its surface. All the mesenteric glands were enlarged and indurated, but neither tuberculous nor scirrhus. On dissecting the left shoulder-joint, I came across two little white chalky bodies in the substance of the ligaments; and I noticed a very curious fact in connection with this case, namely, that the greater part of the compact substance of the bones had become absorbed. Most of the affected arteries were preserved in this case, together with the thoracic aorta.

CASE 2.—The specimens exhibited in this instance are the *radial and ulnar arteries calcified*, taken from a man named P——, æt. 65, who became a patient for acute hepatitis. From this he recovered, but was subsequently affected with chronic bronchitis, and a burning pain in his bowels, which carried him off. His face was whitish, and so was the skin generally, and, taken with well-marked induration of all the vessels of the extremities, the calcareous expression was well observed. The heart was much enlarged, but not in a state of disease; all the vessels springing from it were normal, excepting the coronary, which were lined with atheromatous ulcerations. The vessels of the neck were healthy, but some of the more minute arteries of the brain were equally affected with the coronary. The axillary arteries downwards in both arms, and the femoral arteries downwards in both legs, were hard unyielding cylinders, extensively affected by deposits of calcified matter. The lungs completely filled both sides of the thorax, and bulged outwards on removing the sternum; they were extensively

emphysematous, the bronchi chronically inflamed, and a few tubercles were scattered through them. The surface of the pulmonary pleura near the apices were puckered here and there, as if from the cicatrization of old pulmonary abscesses; there were numerous old pleuritic adhesions, and the surfaces of both lungs were covered with carbonaceous deposits, in size from a small shot to that of a pea. The liver was enlarged, with the borders in two or three places contracted and carnified; its structure was friable, being in the first stage of cirrhosis. The spleen was also enlarged, but not diseased. Both organs were adherent to the diaphragm and stomach. The vermiform appendix possessed a bulbous shape, and was filled with adipose matter. Nothing particular was observed about the remaining viscera.

CASE 3.—One of the *radial arteries calcified*, taken from a woman æt. 45, who also had the calcareous expression simply. The heart was comparatively healthy, but all the arteries of the extremities were calcified, more particularly manifest in the forearms and legs. The coronary arteries were atheromatous and calcified. She died from a chest affection.

CASE 4.—The *pericardium dried*, with bony plates and atheromatous patches, taken from a man æt. 46, who had the atheromatous expression perfectly marked, although otherwise apparently in good health, and his life insured as a valuable one. He died suddenly from cerebral hæmorrhage, and, after death, this was found to have originated in the rupture of a small vessel affected with atheroma. The heart was enlarged, very fatty, and the arch of the aorta, with the thoracic and abdominal portions, much affected with atheromatous ulceration, containing a large quantity of fat and cholesterine. The cartilages of the larynx were also in a similar condition, mixed with soft calcified material. The pericardium, although so extensively affected with atheromatous deposits, gave no uneasiness to the patient during life.

CASE 5.—Is one that should be called the *atheromatous disease*. The drawing exhibited, shows the condition of the arteries of the brain extensively affected with atheroma, subsequently giving rise to fatal serous apoplexy. The following were the chief post-mortem appearances; but I will premise by stating, that for some years, during which the patient was under my observation, he seldom or never complained of any illness, beyond a slight paralytic attack, two years and a-half before death.

Much serum was present at the base of the brain and in both lateral ventricles; many parts of the brain were quite soft, especially both

crura cerebri and right corpus striatum. The basilar artery was extensively affected with atheromatous deposits; and all the other vessels at the base of the brain were also in that condition, only in a more limited degree. The heart was covered with fat, and through the aorta *in situ* could be seen patches of the same deposits. There was extensive hypertrophy, with dilatation of the left ventricle; the aortic valves were thickened, much calcified (without incompetency) from atheromatous tubercles and patches on their aortic surfaces. These latter extended upwards into the arch of the aorta, thence to its thoracic and abdominal portions, and into all the trunks given off from them, more particularly those branches from the arch itself; one large patch, of the consistence of bone, the size of a shilling, existed at the anterior part of the arch, before giving off the arteria innominata. It was nearly two lines in thickness, and its exposed surface resembled the compact texture of bone. These patches presented, under the microscope, tabular and needle-shaped crystals of cholesterine, fat granules in clusters, and free, and isolated epithelial cells. All the abdominal viscera were embedded in fat; over the linea alba the sub-cutaneous fat was an inch and a-half thick. The omentum was a mass of fat; liver enlarged and loaded with fat. The patient, æt. 63, was of short stature, not corpulent; but his expression was that indicating a preponderance of the adipose element.

Dr. GIBB, 15th of May, 1860.

27. *Unusually dilated and hypertrophied left ventricle of the heart.*

The specimen was taken from a man æt. 58, who had suffered for twenty years from disease of the heart. He died rather suddenly, after an increase in the symptoms of three or four days' duration.

On examining the body, the heart was found to weigh thirty-two ounces, this great enlargement being entirely due to an hypertrophy of the left ventricle, which was also dilated. Extensive disease of the aortic valves, with thickening and crumpling of their margins, allowed fluids to pass readily from the aorta into the left ventricle. The remaining portions of the heart, and the other organs of the body, presented a natural appearance.

Mr. CALLENDER for Mr. EDGAR BARKER, 15th of May, 1860.

IV. DISEASES, ETC., OF THE DIGESTIVE ORGANS.

1. PHARYNX, OESOPHAGUS, STOMACH, AND INTESTINES.

1. *Intestinal concretions.*

Intestinal concretions are rarely met with in man, if we exclude the so-called hepatico-intestinal calculi,* which are nothing more or less than gall-stones that have passed into the intestine. The second and third of the following specimens came from the human subject, and the first was found in the stomach of a horse.

SPECIMEN 1.—*Mineral Concretion.*—This was an oval, slate-coloured, very dense, and heavy stone, somewhat larger than a duck's egg, and presented to University College Museum, by J. N. Blake, Esq. On analysis I find it consists of the bases lime and magnesia, combined with phosphoric and a small quantity of sulphuric acids. It has for a nucleus a crooked, rusty, iron nail.

SPECIMEN 2.—*Animal concretion.*—The second specimen, is a concretion of organic matter measuring, when fresh, nine inches long and six inches and a-half in circumference. It was passed after five weeks' suffering, by a gentleman, æt. 56, a patient of Professor Quain's. To the naked eye it appears to be a mass of animal matter, and when examined with the microscope, I find it consists of striated muscular fibres, fibro-cellular tissue, short portions of semi-digested blood-vessels, as first pointed out by Quekett, and a few hairs, the whole held together by a quantity of mucus and lymph.

SPECIMEN 3.—*Starch concretion.*—The third specimen was passed by a servant girl, æt. 25, while a patient in University College Hospital, under the care of Professor Walshe. The woman, on admission, stated that she had been labouring under symptoms of dysentery for two months. She rapidly improved after she came into the Hospital, and on the eighth day passed with difficulty a very large stool, which consisted partly of ordinary faecal matter, and partly of a white-coloured, hard, brittle mass, streaked with blood. The mass which was about the size of a small hen's egg, on being broken resembled very closely a phosphatic calculus. Professor Walshe having sent it to me for examination, I submitted it to chemical and microscopical analysis, and was somewhat surprised to find it consisted entirely of hardened starch.

* Specimen of Hepatico-Intestinal Calculus, with Analysis.—Vol. VIII. of the "Transactions," p. 235.

DESCRIPTION OF PLATE III.

Fig. 1 represents the square-shaped crystals of triple phosphate, in Dr. Gibb's case of Saccharine Urine, with Cancer of the Liver, &c., p. 90.

Fig. 2 illustrates the microscopic structure, in Dr. Harley's case of Intestinal Concretion, formed chiefly of Oat-hairs, p. 87.

- A. Tubular hairs.
- B. The same, with hair in the interior.
- C. Vegetable spiral fibres found along with the above.

Fig. 3 illustrates Mr. Holmes' case of Distended Bile Ducts, from stricture of the Hepatic Duct, p. 130.

Fig. 4 illustrates Dr. Gibb's report on Dr. Baker's case of Salivary Calculus, spontaneously passed, p. 106.

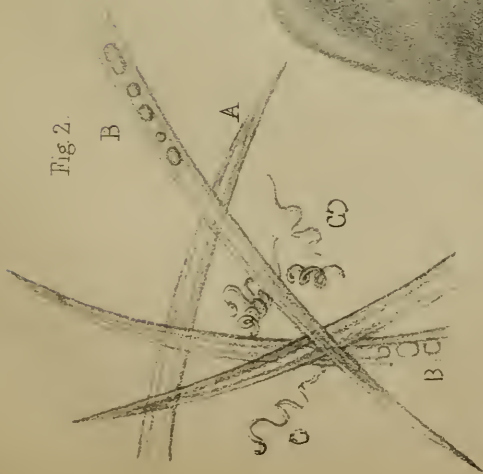


Fig. 2.



Fig. 1.



Fig. 4.



Fig. 3.

On inquiry, the patient stated that for five or six weeks before her admission into the Hospital, her food had been chiefly arrow-root, sago, tapioca, and ground-rice made into puddings.

As far as I have been able to ascertain, it appears that intestinal concretions from the human subject are in general composed of imperfectly digested animal or vegetable food, and occasionally of a mixture of both. Sometimes they consist of medicine, as happened in a case lately brought under my notice by Professor Erichsen. The patient, a distinguished singer, æt. 40, consulted Mr. Erichsen on account of his having passed, after considerable intestinal irritation, a hard stone-like mass. The specimen was of the size of a field-bean, and of a dark-brown colour, looking not at all unlike an uric acid calculus. On analysis, I found it to be composed of benzoin gum encrusted with a small quantity of inorganic matter. The patient had been taking pills of gum benzoin in order to improve his voice, and these, instead of being digested and absorbed, appear to have accumulated in the intestines, and given rise to the concretion.

Dr. HARLEY, 18th of October, 1859.

2. *Oat-hair intestinal concretion.*

This calculus is from the collection of the late Mr. Liston in University College Museum. It is of a circular form; and measures one inch in diameter. Although to the eye it looks like a piece of brown sandstone, it is extremely light, being of a less specific gravity than water, and consequently floating in that liquid. On section, the internal surface presents a pale-coffee colour, and looks and feels not at all unlike a piece of brown felt. On examining it with the microscope, I find that it consists of a number of hairs and vegetable spiral vessels. (Plate III. Fig. 2.) The hairs are tubular, and allow the water to enter them by capillary attraction. In consequence of the air and water mixing in the tube, some of them present a curiously dotted central part. These hairs, as first pointed out by Dr. Wollaston, come from the seed of the oat. The calculus has an external coat of about a line in thickness of a different-looking substance. This I found to be composed of hairs, mucus and inorganic salts. On incinerating a portion, the ash was found to consist of lime, magnesia, and a little soda. The calculus is one of twenty passed at different times by the patient.

Dr. HARLEY, 1st of November, 1859.

3. *Cancer of the liver, lungs, pleuræ, uterus and bladder; conjoined with albuminuria of one kidney, and saccharine urine of the other.*

Mrs. M——, æt. 55, the mother of two children, had been affected with cancer of the os uteri a little over four years. Three years ago she underwent two operations for the removal of the disease by Mr. Jonathan Hutchinson, who exhibited the specimens before the Society in November, 1856, the first removed being medullary, and the second, ciliated epithelial cancer.* For a short time the second operation was successful, but the disease returned, accompanied by discharges, at first sanguineous, then muco-gelatinous, and finally, ichorous; the pain was constant and without cessation; an examination showed a return of the cancer, which formed a prominent swelling of the entire os and cervix with a raw ulcerated surface. This gradually spread, attacked the anterior wall of the vagina, and ulcerated into the bladder in the early part of December, 1858. From that time the urine constantly dribbled away per vaginam, although she passed some naturally for a short time after, in small quantities. Pain of the most agonizing kind now commenced, and continued uninterruptedly for nine months, unrelieved by the most powerful anodynes, this was explained by the passage of the urine over the ulcerated surfaces in the vagina. Cancerous tubercles formed in the perineum and around the entrance to the vagina, and the labia were consequently swelled from infiltration of their areolar tissue, and the discharge at times resembled dirty matter, with an offensive odour, particularly as the general ulceration seemed to extend to the outlet of the vagina. In June, 1859, bed-sores formed, but were cured by proper measures, decubitus was principally on the left side. In August, the liver commenced to extend downwards in the right hypogastrium, its surface was nodulated, clearly felt through the skin, and Farré's cancerous tubercle was diagnosed. It subsequently extended more to the left, and still further downwards; at this time she complained of cough. For many months constant thirst was a prevailing symptom, and the skin was dry, her appetite at all times was bad. On the 17th of September, the left foot and leg became gangrenous, this spread above the knee, sensation was completely lost, the middle and index finger-nails of both hands became brown, and she gradually sank and died on the morning of the 13th of October, death being preceded by two convulsive fits. She had been bedridden for upwards of twenty months.

Post-mortem examination, eight hours after death.—The left leg was in a state of dry gangrene which extended a little above the knee, with patches of gangrene on the outer surface of the left thigh. The whole of the integuments over the sacrum had sloughed, and bed-sores con-

* See Vol. VIII. of the "Transactions of the Society," p. 251.

tinued towards the buttocks. The entire cutaneous surface was pale, and there was no rigor mortis.

On opening the *thorax*, both surfaces of the pleuræ were found adherent, to the greater part of their extent, and could with great difficulty be separated. In various parts of the right pleura were inward protrusions of coalescing masses of cancer, some of them as large as a marble, and this caused considerable thickening of the structures on each side of the spinal column, which extended all the way down to the sacrum. The lungs contained here and there masses of solid tuberculous deposit, coated, where near the pleural surface, with a layer of cancerous tissue, the largest the size of a hen's egg, presenting on section, examples of the medullary form of the disease, mixed with tubercle to the naked eye, and they were proved by microscopic examination to be tubercle and cancer. The intermediate lung tissue was comparatively healthy, but much affected with interlobular emphysema. The heart was small, but healthy, all its cavities were filled with remarkably firm clots of black blood, which extended into the pulmonary arteries. All the large blood-vessels were normal. Throughout the entire body no blood in a fluid condition was observed, it was coagulated in the portal and other veins. The pericardium was unaffected. The deep bronchial glands were enlarged, and formed a chain of tumours with the lymphatic, on each side of the dorsal spine, all affected with cancer.

On laying open the *abdomen*, the first organ presented to view was the liver, with its lower border spreading downwards and evidently displaced in position. Its surface was covered with numerous buff-coloured elevated cancerous tubercles, the largest nearly two inches in diameter, and nearly all circular, none of them coalesced, but they presented the general characters of the *tubera circumscripta* of Farre; the organ weighed exactly four pounds, and was of natural dimensions, the gall-bladder was partially filled with bile; the hepatic structure to the naked eye appeared normal, the hepatic cells were found to be so under the microscope, but were much loaded with albuminous globules. A section of the liver, showed the presence of the cancerous masses in various parts, of all sizes, quite distinct from from one another and circular in shape. No sugar was present in this organ. The stomach, pancreas, and entire alimentary canal were sound, the bowels generally more adherent where in contact with the peritoneum, and so was the omentum, especially at the anterior part of the bladder, but they could readily be detached, excepting at the last. The upper surface of the liver was partially adherent to the diaphragm, and as this was also the case of the inferior surface of the lower lobe of the right lung to the upper surface of the diaphragm, it caused much difficulty in detaching

the parts. The entire lymphatic system on both sides of the spine was involved in the disease, producing enlargement and general thickening of the structures, extending to the margins of the pelvis. The right kidney was enlarged and weighed with its contained pelvic fluid seven ounces and three-quarters, the left was smaller than natural, and weighed with its fluid three ounces; from both extended dilated ureters filled with urine; when the fluid was evacuated, the larger kidney weighed seven ounces and a-quarter, and the smaller two ounces. The urine in the larger kidney was of a muddy-yellow colour, specific gravity 1026, feebly acid, and contained sugar by the usual copper and other tests, and the microscope showed some isolated square crystals of triple phosphate, with four sides and a central facet, all of uniform size. (Plate III. Fig. 1.) The urine in the left and smaller kidney was of specific gravity 1015, neutral, and contained albumen, as shown by nitric acid and heat, with a good deal of oil in the form of globules under the microscope, but no distinct casts. Both supra renal capsules were healthy. A section of the right kidney showed its structure to be very vascular, and it contained two cancerous nodules the size of a marble. The left kidney had the greater part of its general structure absorbed, and formed a mere sac, yet enough remained to secrete urine from the blood, but in an albuminous condition; it was evidently in a state of hydronephrosis, as pronounced by Dr. Hare who examined it. The spleen was normal, but contained a single cancerous tubercle the size of a marble. The bladder, uterus, and rectum appeared to be a united or rather agglomerated mass of disease, and as the connection between the bladder and its surrounding parts was most intimate, the whole were removed *en masse*, including the rectum and anus, and external genital organs, with three inches of the front part of the pelvis, for careful dissection. A portion of the bladder's fundus had become broken into by the removal. The rectum was found to be intact. The entire vaginal surface was affected with epithelial cancer, and its whole anterior wall was destroyed, as also the posterior wall of the bladder down to its neck; the os and cervix, and almost the whole of the body of the uterus were gone, not more than three-quarters of an inch in depth of the uterine fundus remaining, with a part of its posterior wall. The result of this was the presence of one large cavity formed by the vagina, uterus, and bladder, presenting a large ulcerated epithelial cancerous surface. The right ovary and Fallopian tube could be seen curved backwards, whilst the left ovary formed a hard tumour somewhat anterior to the left border of the uterus, the size of a small hen's egg, and contained two large circular cancerous nodules. The scirrhus form of cancer was present in the remaining portion of the uterus, and in the right ovary; whilst the

left ovary, and indeed all the other parts of the body, already described, were implicated in the medullary form of the disease. The dilated ureters were traced to their termination in the bladder, and were all but impervious, curiously enough they were not engaged in the general mischief.

The case is one of general interest, as presenting distinctly the three forms of cancer in one body, as verified by microscopical examination. Tuberculous masses co-existed with cancer in the lungs, but the cancer was chiefly confined to their pleural surfaces. One kidney contains in its pelvis saccharine urine, and the other, albuminous urine, the specific gravity of each varying considerably. This is a fact of great novelty, and suggests the question whether, one kidney alone may not be the seat of disease in many instances, instead of the two being engaged. I have, however, noticed the presence of albumen in diabetic urine during life, and on one occasion I found the urine in a case of chronic Bright's disease, actually to become saccharine and continue so for some days.* The character and appearance of the cancer in the liver were precisely similar to those in the example of "Farre's Cancerous Tubercle of the Liver," which I brought before the Society at its last session. The whole alimentary mucous tract was perfectly healthy.

Dr. GIBB, 1st of November, 1859.

4. *Substances passed by the intestinal canal.*

The various substances exhibited were stated to have been passed from the bowels of a patient recently under the care of Dr. H. G. Wright, with whom Dr. Priestley had seen her in consultation. The patient was a young woman, who suffered from symptoms of an hysterical character, with dyspepsia and general mucous derangement. The specimens had the appearance of partially-digested animal food, mixed with a flocculent material, and, here and there, with small portions of distinct tubing, which seemed to be pieces of an artery. The portions of tube varied from a quarter of an inch to an inch in length, and the longer portions were sometimes dichotomously branched, or gave indications of having given off three or more branches. The elastic character of the tube was marked by its remaining open, and perfectly round; and the microscope showed the coats to consist of elastic tissue, such as is usually found in the middle coats of arteries. The rest of the evacuated substance consisted of white fibrous tissue, partially decomposed muscular tissue, flocculent lymph, simple and spiral vegetable cells, mixed with

* See my Paper on the "Pathology of Saccharine Assimilation," in the first volume of the "Lancet" for 1855; and my little Work "On Morbid States of the Urine," published in 1846,—wherein this subject is considered.

chlorophylle. The evacuation was understood to consist partly of fæcal matter, which had been washed away from the substances presented. No peculiarity in the usual diet of the patient could be ascertained; and yet the substances were repeatedly preserved by the patient for Dr. Wright's inspection. A careful inquiry was instituted, for the purpose of ascertaining the truth of the patient's statement as to the history of the specimen, but without eliciting anything to throw discredit upon it, beyond the fact that she was an eccentric and very hysterical person.

Dr. Priestley, although unable to decide positively as to whether the patient had practised an imposition, was inclined to believe in her truthfulness. This was now the third time he had seen substances identical with those exhibited, alleged to be passed from the bowels of female patients.

One case came under his notice in the Leeds Infirmary, while filling the office of Clinical Clerk to Dr. Chadwick. Pieces of tube, like portions of an artery, were mixed up with a flocculent material, as in the present case; but, to the best of his recollection, the portions of tube were longer. The specimens were brought to Dr. Chadwick in bottles, week after week, and the impression of the case then was, that an imposition had been practised by the patient. Dr. Priestley was well aware of the necessity of keeping guard against the deceptions of female hysterical patients, and narrated a case in which a young woman had brought to him, on two separate occasions, the testis of an animal, probably a pig, stating that they had passed from her vagina.

In the present instance, however, the larger portion of the specimen clearly consisted of undigested food. The chief difficulty was as to the source of the pieces of tubing. He understood that Mr. Quekett considers it not unusual for arteries in animal food to pass undigested through the intestinal canal.

Dr. PRIESTLEY, *1st of November, 1859.*

5. *Fibrinous concretions from the intestines.*

The specimens consist of large masses of fibrin discharged from the rectum. The patient, a woman, æt. 28, had been married eight years, without having any children. About the end of the year 1842, she was seized with paroxysmal attacks of abdominal pain, which gradually increased in severity. In February, 1843, the abdomen became distended, the bowels irregular, the appetite defective, and the pulse 120. The pain in the abdomen was at times so violent as to cause her to roll out of bed, and become almost insensible. These attacks recurred three or four times in the course of the day. She was treated with opium. Her symptoms were such as at one time to lead to the supposition that she had some internal organic disease (cancer). The uterine functions

were regularly performed. On the 21st of February, Dr. Rayner was suddenly sent for, and on his arrival found a large tumour impacted in the anus. It was very foetid, and of a blackish colour. A second mass, of a somewhat lighter colour, was discharged in about a quarter of an hour. One larger than either of these had, however, come away before Dr. Rayner's arrival, and another smaller one was passed after he left. After these masses were discharged, the pain ceased, the abdomen resumed its natural size, and by the following April the patient had entirely recovered her health.

The specimen consists of two of the fibrinous masses. On section, they present a densely laminated texture. In what form these masses came through the anus is not mentioned in the report; but the flattened roundish appearance they now present, is due to their having been packed in a gallipot. The specimen is preserved in University College Museum.

Dr. GEORGE HARLEY, 1st of November, 1859.

Report on the above specimens.—The two masses are nearly of the same size,—one measures three, the other three inches and a-half in its longest diameter. Both are about two inches in thickness. The peculiar flattened, roundish appearance they now present is no doubt due, as stated in the history, to their having been packed in a gallipot. On section, one of them presents a dense fibrous-looking structure. The other is also fibrous-looking, but much less dense, and more irregular in shape. We can find nothing in their ultimate structure, either microscopically or chemically, incompatible with the supposition of their being either coagulated fibrin or effused lymph; and there is little in their general character, beyond their shape and bulk, in opposition to the same view. We find no evidence of their being any form of polypus or other morbid growth, and are therefore disposed to accept Mr. Quekett's opinion, namely, that "they seemed to be composed of lymph."* At the same time we beg to add, that we are at a loss to account for their presence in the digestive canal.

Dr. J. S. BRISTOWE.

Dr. G. HARLEY.

6. *Case in which a needle was found encysted in the great omentum.*

J. B., age unknown, died in the Middlesex Hospital, on the 5th of July, 1859, of cancer.

On the abdomen being opened, a firm black substance, resembling a large thorn, was found lying in the tissue of the great omentum. On examination, this proved to be a cyst, with a perfectly smooth lining

* Vide Quain on "Diseases of the Rectum," second edition, p. 318.

membrane, and stained throughout of a deep-black colour. It contained a needle two inches and a-half long, the eye of which had been partly broken off.

The shaft of the needle was also broken across in the middle; but this must have occurred subsequently to the completion of the encysting process.

Beyond thickening, there were no traces of inflammation in the neighbourhood of the cyst.

In the smaller curvature of the stomach was a single small stellate cicatrix, of old standing. Dr. COOTE, 15th of November, 1859.

7. *Villous cancer of the stomach.*

The patient was an extremely emaciated man, æt. 56, who was admitted into the Hospital on the 31st of August, 1858, and died on the 28th of the following October. He appears to have suffered from the usual symptoms of cancer of the stomach; but no notes of any value have been preserved.

The peritoneal cavity contained a little fluid. The anterior surface of the stomach was, for the most part, pretty healthy; but a few cancerous glands were situated along both curvatures. The posterior surface was in great measure incorporated with a mass of cancerous growth (consisting of both lymphatic glands and pancreas) of an irregular nodulated form, altogether about as large as the fist, protruding the stomach very much forwards. On cutting open this organ, both its cardiac and pyloric orifices, and the larger portion of its mucous surface, were found healthy. Not far, however, from the pylorus, in the greater curvature, and encroaching a little on both the anterior and posterior surfaces, was a mass of villous cancer, occupying an area of about three square inches, and projecting for at least an inch; and a short distance to the right of this, was a similarly diseased patch, about half-an-inch in diameter and a line in elevation. The villi were in some instances slender elongated papillæ, blended with one another, to a greater or less extent, by their bases; and in others, seemed constituted, in great part, of loose folds or shreds of thin membrane, which looked as though they might have been the parietes of larger papillæ which had become torn and had discharged their contents. The posterior part of the stomach, chiefly in its pyloric half, was much nodulated, being infiltrated and thickened by cancerous deposit, in which ulceration had not as yet begun. On vertical section, the bases of the two villous growths were found to consist of soft creamy-juice-yielding material, which occupied the entire thickness of the ventricular walls; and the parietes, corresponding to the nodulated

portion of the mucous surface were found to be similarly affected, measured from half-an-inch in thickness downwards, and were continuous with the mass of cancerous growth behind the organ. The growth just alluded to consisted chiefly of pretty firm white opaque material, yet yielded abundance of creamy juice, and in many places exhibited distinct traces of the tissues which it had infiltrated. In one part, immediately behind the pylorus, was an irregular flocculent walled cavity, as large as a filbert, filled with creamy fluid.

The liver was somewhat enlarged, and presented a considerable number of tumours. They were mostly globular, of no very great size, white and firm, and furnished a tolerable abundance of creamy-juice. The general substance of the organ was healthy. The spleen was of the usual size, and its capsule, in the situation of the hilus, was thickened and adherent to the stomach. It presented, in its substance, two or three large wedges of opaque whitish material, apparently ordinary fibrinous blocks. The rest of the abdominal viscera were healthy. The pleuræ presented some old adhesions, and some serous effusion. The lower lobe of the left lung was collapsed; but nothing further, of an abnormal character, was recognized in the contents of the chest.

Microscopical examination.—The cancerous growths consisted of large, irregular-shaped cells, with large nuclei and distinct nucleoli. The cells in the liver and lymphatic glands had a considerable resemblance to healthy liver-cells, but were larger and less regular, and their nuclei also were unusually large and various in size and form. The cells belonging to the gastric cancer were generally elongated, very large, and contained one or more large nucleolated nuclei. The perfect villi appeared to be composed of elongated bundles of these cells arranged along the capillary blood-vessels; but the larger and imperfect ones consisted of mere shreds of fibrillated membrane, with nuclear cells attached.

Dr. BRISTOWE, 6th of December, 1859.

8. *Cyst simulating a femoral hernia.*

The patient from whom this specimen was removed was an old woman, æt. 70, who had been suffering from constipation, and vomiting, with pain in the abdomen for three days. The medical man who was first in attendance, considering that these symptoms might depend upon the strangulation of a femoral hernia, which existed in the right side, requested me to see her. I found the hernia quite flaccid, and obviously not in a strangulated condition, but in the opposite groin discovered a small and very tense projection through the femoral ring, which gave some pain when pressed upon, but not otherwise, the patient having been unaware of its previous existence. The hernia on

the right side had existed some years, but she had never worn a truss. She had had several similar attacks of constipation and vomiting before, which had always readily passed off. I made gentle attempts to reduce the tumour on the left side, but did not succeed, and the vomiting and pain having now gone off, she was merely ordered an enema. The following day she had brought up a good deal of wind, and felt easier; in the evening, however, she complained of an increase of pain over the abdomen, and particularly towards the left groin, and I therefore proceeded to operate. Having exposed the sac of the hernia, and divided a few fibres of Gimbernaut's ligament, I was enabled to return the tumour without opening the sac, the intestine within being apparently perfectly normal. The pain was quite relieved by the operation; but the patient gradually got feeble, and died two days after.

Post-mortem examination.—Evidences of enteritis were found throughout the intestines; and, on the right side, intestine and omentum filled the hernial sac, but were not strangulated. On the left side there was no hernia; but, upon turning down the peritoneum, a cyst was found external to it, which had protruded through the femoral ring. This cyst was about the size of a walnut, and was evidently derived originally from the peritoneum. On laying it open, there were found a number of *appendices epiploicæ* matted together, and derived from the upper part of the rectum, which passed into the pelvis, immediately behind the femoral ring, and were bound tightly to it by the attachment of the cyst. On laying open the intestine, a slight puckering of the mucous membrane was visible opposite the attachment of the cyst. The mal-position of the intestine must, I imagine, have been congenital.

Mr. Quain has placed on record cases in which a cyst containing blood, &c., have been found in the femoral ring; but I am not aware of any case precisely similar to the above.

Mr. CHRISTOPHER HEATH, 6th of December, 1859.

9. *Encephaloid cancer of the œsophagus (the symptoms of which had, for a long time, been attributed to tubercular disease of the lungs).*

E. W., a lady, æt. 34; married; had had five children, all born dead. Her mother died of phthisis, and her grandmother of some organic affection of the throat, causing symptoms similar to those of the present case.

She had been ailing for several years, and was observed by her husband, as much as five years ago, to be longer than others in eating her food. She complained of her throat, for which she had medical attendance, and for which nitrate of silver was subsequently applied. She was in

continual fear lest she should be choked by eating too large a piece of solid food. About three years ago she began to emaciate, and, as she had a cough, was treated for tubercular disease: she repeatedly asserted the mischief was in her throat alone.

She continued to grow worse each year, and about six months before her death the cervical glands began to enlarge. About one month before her death she began to spit up blood, large in amount, the quantity of sputa and blood together being about a pint per diem, but the blood and sputa were intimately mixed, the odour being foetid.

At this time,—*i e.*, one month before death,—she came under the care of Mr. Kirby, complaining of the cough and constant expectoration, and difficulty of swallowing, though the latter symptom was not then brought so prominently forward, the cough, wasting of flesh, and spitting of blood being the great symptoms.

The glands on each side of the neck were enlarged, but more especially those of the right side; they varied in size from a pea to a walnut.

Two weeks before her death she was unable to swallow either liquids or solids; any exertion brought on a fit of coughing, during which large quantities of these offensive grumous-looking sputa were ejected. No affection out of the lung could be made, but a little dulness at one apex, insufficient to account for symptoms. She was then seen by Dr. Walshe, who pointed out the almost certain indication given by these symptoms of carcinomatous disease. She continued to bring up the grumous fluid, in larger quantity and of darker colour, until one day before her death, when it ceased. A few hours before the fatal result she unsuccessfully attempted to swallow a teaspoonful of water.

Post-mortem examination.—Thorax and back of mouth only examined. Chest:—No appearance of tubercle, but masses of carcinomatous deposit, the size of peas or beans, were collected in the substance of the left lung, about the root; apex and peripheral parts of lung healthy. The right lung had, also, similar nodules in its substance, and on the anterior surface of the lower lobe was a mass of five or six such. The enlarged glands, anterior to the sterno-mastoid, were found filled with encephaloïd matter, which, microscopically, presented well-marked “cancer cells.” The interior of the œsophagus (especially its anterior surface) was distended with a mass of encephaloïd matter, reaching up for four inches to the aryteno-epiglottidean folds, but not descending down the larynx, which was quite healthy; the lower part of the œsophagus was healthy; the heart was healthy, but very small, the left side being loaded with blood. The abdomen was not opened. The emaciation was extreme.

The above account of the case has been furnished by Mr. Kirby.

DR. HARE for MR. THOMAS C. KIRBY, 20th of December, 1859.

10. *Cancer of the omentum, involving the transverse colon.*

The subject from which this specimen was taken was a man *æt.* 55, a French cook, who had enjoyed excellent health until the last two or three years, when he suffered frequently from dyspepsia and great flatulence; there was no vomiting, but constant diarrhœa and occasional twisting pain at the umbilicus; the motions were generally liquid, not slimy, never bloody, nor black.

At the early part of this year he attracted my attention to a tumour in the upper and left part of the abdomen; it extended from about half-an-inch below and to the right of the umbilicus to within one inch and a-half of the left costal cartilage, so that it was about three or four inches in diameter, somewhat moveable, not smooth on the surface, and irregular in outline. There was clear resonance all round the tumour.

In September he had a severe attack of colic, with obstinate constipation and sickness, which yielded to opiates and purgatives; this occurred again in October, and also in November; in the latter attack the vomiting and constipation did not yield to the remedies as before, and he died the 17th of November.

Post-mortem examination, forty-eight hours after death. The body was rather fat, there was considerable purplish discoloration of the skin posteriorly, elsewhere it was palish; no marked straw-coloured tint of skin.

The abdomen was tensely distended with flatus. On opening it the intestines were seen of a dusky-purplish colour, varying in intensity in different parts, due to fine injection of capillaries; the surface of the intestines did not possess the usual polished appearance, owing to a thin film of lymph over them. Some turbid fluid was in the abdominal cavity, mixed with shreds of lymph.

The liver was less than average size.

On the left side of the abdomen there was a large, hard, irregular, prominent mass, presenting the usual appearance of scirrhus-encephaloid cancer, irregularly ovoid in shape, and uneven on the surface; in size it approached that of a child's head at birth; its upper and outer edge reached within an inch of the left costal cartilage, and its lower and inner border extended to the umbilicus. It rested upon and much involved a portion of the transverse colon; the cæcum and descending colon were enormously distended, and the small intestines were much distended, but the descending colon was small and contracted.

On removing the mass, it was found that the primary seat of the disease was in the large omentum, and especially its upper and left part;—it lay between a coil of the ileum and the left portion of the

arch of the colon, and in front of the latter. It also surrounded the colon, contracting its diameter, and obstructing the passage of the fæces.

Some of the lymphatic glands in the mesocolon and mesentery were also cancerous.

The other organs were healthy.

J. C. LANGMORE, M.B., 20th of December, 1859.

11. *Parts concerned in Littre's operation for imperforate anus.*

The specimen was exhibited by Mr. Holmes for Mr. Athol Johnson, whose description of the case was as follows:—

A female child, three days old, was brought to the Hospital for Sick Children, on the 29th of December, 1859, with imperforate anus. On examination, the external aperture was found in its usual position; but, on dilating it so as to introduce my finger the passage was found to be only about a-half or three-quarters of an inch in length, terminating in a cul-de-sac. When the child cried or strained, a fluctuating tumour could be distinctly felt by the finger, pressing down upon the lower passage, and which was supposed to be the termination of the rectum, distended with meconium. After a day's delay, to allow of greater accumulation of fæcal matter, having introduced my finger into the anal passage, and feeling the fluctuation distinctly, I passed a trocar by the side of my finger, and introduced it into the tumour above; on withdrawing the trocar, about three ounces of perfectly clear and transparent fluid, unmixed with blood or meconium, flowed in a full and rapid stream through the canula. The fluid looked very much like urine; but the child being a female, it was evident that the bladder could not be in that position, and on boiling, complete solidification took place, showing that it was serum, and that it must have come from the distended peritoneal cavity. The canula having been removed, and the finger again introduced, no swelling could be detected; and, as the serous membrane evidently came down upon and partially invested the cul-de-sac, it was not deemed expedient to make any further attempt at reaching the bowel in that situation.

In the afternoon of the same day, with the assistance of Mr. Holmes, I determined to perform Littre's operation in the left groin. An incision was made a little above the level of the anterior superior spine of the ilium, nearly parallel with Poupart's ligament, and the various parts divided, until the peritoneum was reached. On opening this, a considerable quantity of serum escaped, and the sigmoid flexure presented itself at the wound, moderately distended with meconium. This was secured to the edges of the incision by sutures, and having been freely

opened, a quantity of meconium flowed out. No protrusion of the small intestines took place, and no amount of hæmorrhage occurred. The child was a little cold after the operation, but took some milk, &c., pretty freely.

The next day she was brought again, and appeared to be going on well, taking the breast readily, and not having had any sickness. On the evening of the following day, however, as I heard from the medical attendant, she got weaker, and died without any marked symptoms of peritonitis.

On examining the parts, peritonitis was found to be present to some extent. The portion of intestine opened was the sigmoid flexure, a few inches before its termination in a blind extremity in the pelvis. This had been secured to the integuments, and no escape of meconium into the peritoneal cavity had occurred. The sigmoid flexure and descending colon were, as is generally the case at this age, so completely surrounded by a mesocolon, and so loosely attached to the parietes, that it would have been impossible to have opened them in the lumbar region without wounding their serous covering.

The termination of the rectum in the pelvis was at no great distance from the anal passage, but the recto-vaginal pouch of the peritoneum descended unusually low in this case, investing the rectum, as well as the upper surface of the anal cul-de-sac, to such an extent as to have rendered it almost impossible, especially when the peritoneal cavity was distended with serum, to establish a free passage from the anus into the bowel above. This pouch had been punctured by the trocar, but the opening had pretty well united, so that it was difficult to pass a bristle through it.

Remarks.—One or two points of interest will probably be noticed.

1. The fact, that even if a fluctuating swelling is distinctly felt at the perineum, or in the anal orifice, it may arise, not from the distended bowel, but from dropsy of the peritoneum, and, consequently, this membrane may be punctured.

2. That the peritoneum,—perhaps in this case pushed down by the dropsical effusion, may descend so low as seriously to interfere with operative treatment in this situation.

3. That the only other operation practicable in this case was Littre's operation in the groin. The post-mortem examination showed that an attempt to open the colon in the lumbar region would have been attended with such difficulties as to have offered no chance of a successful result.

4. The incision having been made high up, rather *above* the level of the anterior superior spine, the bowel was reached without any trouble.

Mr. T. HOLMES, 3rd of January, 1860.

12. *Epithelial cancer of the pharynx, necessitating tracheotomy and gastrotomy.*

Mr. Sydney Jones showed parts removed from a female who had been subjected to the operations of tracheotomy and gastrotomy, in consequence of epithelial cancer involving the larynx and pharynx. The patient, æt. 44, first came under Mr. Sydney Jones's observation about twelve months since, when he was called in by the late Dr. Griffith to open her trachea. She was a married woman, had borne two children, the last one thirteen years ago. Since that time, however, she had had several miscarriages. During the last fourteen years she had been delicate; had been twice under treatment for ulcerated os uteri; had suffered from occasional attacks of constipation, and frequently from colds and coughs. In July, 1858, she first began to complain of soreness in the throat, with slight cough and hoarseness. In spite of all treatment, this soreness increased, rendering the deglutition of solids, and even of fluids, extremely painful; the breathing also became more and more difficult, necessitating the operation of tracheotomy on the evening of the 10th of February, 1859. A double tube was then introduced into the trachea; and, from this time until her death, more than five months afterwards, her breathing was quite free, and effected entirely through the tube.

The pain and difficulty of swallowing, however, continued to increase after the operation of tracheotomy. Mucus, mixed occasionally with blood and pus, was constantly collecting about the fauces. In May, it was found impossible to pass a No. 12 elastic catheter down the œsophagus. About the beginning of June, it was evident that no food passed into the stomach; spoonfuls of fluid, taken by the mouth, were retained for about a couple of minutes in the pharynx, and then rejected. During the last five or six weeks before gastrotomy was had recourse to, any nourishment taken into the system must have been by means of enemata of milk, beef-tea, arrowroot and brandy.

All attempts (general or specific) to arrest the disease had failed. The patient was evidently sinking from starvation; her pulse was small, weak, and rapid; she complained severely of hunger and thirst, and asked if nothing could be done to relieve these symptoms. On the 13th of July, Mr. Sydney Jones proposed to her the operation of gastrotomy, at the same time pointing out the severity of the operation, and the serious results that might ensue. She at once consented. Dr. Bristowe had kindly examined the thorax and abdomen, and was unable to detect visceral disease. On Thursday, the 14th of July, the stomach was opened, Mr. Simon and Dr. Bristowe being present, and kindly aiding with their valuable suggestions. An incision, about three inches

and a-half in length, was carried downwards, from between the eighth and ninth costal cartilages on the left side, along the outer border of the rectus, the latter being turned somewhat inwards; the conjoined tendon of the internal oblique and transversalis was divided, and the peritoneal cavity was afterwards opened. Some little difficulty was at first experienced in securing the cardiac end of the stomach, in consequence, as was found after death, of the viscus being drawn downwards, and more to the left side than usual, by some omental adhesions. The stomach having been drawn forwards, was opened by a vertical incision about three-quarters of an inch in length; the edges of the stomach-wound were then firmly secured to the edges of the skin-wound by five or six strong double silk ligatures. From three to four ounces of blood were lost during the operation. A tube, with a funnel fitted at the upper end, was placed in the stomach, and kept there till the patient's death; the tube was also curved, so as to allow the greater part of its convexity to rest against the posterior wall of the viscus. No irritation seemed to be produced by the permanent keeping-in of the tube. The operation was commenced about a-quarter to three P.M.; at half-past three P.M., a short time after its completion, an ounce of milk was introduced into the stomach, mixed with half an ounce of brandy. This was repeated at five P.M., with thirty drops of laudanum. She was tolerably cheerful, and expressed herself relieved from her feelings of hunger and thirst. A fomentation of camomile was applied to the abdomen, and ordered to be continued. At ten P.M. the laudanum was repeated. At eleven P.M. an injection was given, by the rectum, of brandy, arrowroot, and beef-tea. The patient passed a tolerably comfortable night, although she did not sleep soundly: up to twelve o'clock milk was introduced every hour in small quantities, either alone or combined with stimulant; after that hour, however, the patient inclining to doze, and a feeling of sickness, with a tendency to retch, being produced by the introduction of food, the latter was given only every two hours.

Friday, 15th of July, nine A.M.—The pulse was very feeble; the surface was warm, but clammy. She complained of some pain in the neighbourhood of the wound; but there was no tenderness of the abdomen generally. Food was ordered to be introduced every hour; its introduction produced a little retching, but no food escaped by the wound. An injection was given at eleven A.M. In the evening of Friday she was evidently sinking rapidly; the hands, feet, and legs were cold, and the pulse hardly perceptible. She remained sensible till a quarter past twelve A.M. on Saturday the 16th. Death occurred about three A.M., thirty-six hours after the operation.

The stomach, trachea, and œsophagus were exhibited to the Society.

The aperture in the stomach was about midway between the cardiac and pyloric ends, and the same distance between the upper and lower margins. The stomach, in the immediate neighbourhood of the wound, was adherent, by recent lymph, to the abdominal parietes. Elsewhere, however, no peritonitis existed. The pharynx showed cancerous ulceration extending from the epiglottis to the cricoid cartilage. The thoracic and abdominal viscera were healthy.

The parts exhibited are preserved in the Museum of St. Thomas's Hospital.
 SYDNEY JONES, M.B., 17th of January, 1860.

13. *Extensive tubercular ulceration of the bowels.—Entire absence of abdominal symptoms.*

W. L., æt. 50, a carman by occupation, and reported to be of sober habits, was admitted into St. George's Hospital under Dr. Fuller's care, on the 21st of December, 1859. He had enjoyed excellent health up to last July, when, without obvious cause, his complexion became pale and sallow, his strength began to fail, and he rapidly lost flesh. Before the commencement of his illness he weighed eleven stone seven pounds, and by the 8th of November his weight was only eight stone nine pounds. He had led a sober and regular life, and was unable to account for his illness. From the first commencement of the failure of his health up to the date of his admission into the Hospital, his appetite had been good, he had remained free from pain, had slept well, and had not experienced the slightest cough; moreover, there had been neither sickness, purging, sweating, nor undue diuresis.

On admission, his complexion was pale and sallow, his features were sharp and drawn, he was extremely emaciated, and was so weak as to be unable to stand without assistance. The condition of the skin was natural; tongue very red, but almost clean; bowels regular—acting once daily—and the motions were healthy in colour, and of the consistence of thick paste; urine clear, acid, of normal quantity: specific gravity 1014, and containing a trace of albumen and granular casts of the tubes. His respirations were seventeen in a minute. Pulse 108, and exceedingly weak. The condition of the abdomen externally was healthy; there was not the slightest tenderness on pressure, and no hardness or circumscribed fulness was perceptible to the touch. Appetite good. He was very low-spirited, and constantly spoke of his condition as hopeless. The treatment prescribed consisted of vegetable bitters with the mineral acids, iron, and cod-liver oil, and a generous diet.

He continued to eat and sleep well, and the various functions of the body were regularly performed, but he daily became thinner, weaker,

and more sallow ; indeed, his aspect was that of a man affected with malignant disease. On the 29th he began to suffer from "relaxed throat," and became exceedingly hoarse. His respiration, too, was accelerated, and was found to be twenty-four in a minute, and a slight cough had supervened, accompanied with scanty grey mucous expectoration. The stethoscope revealed excessively coarse and somewhat hollow respiration, with greatly prolonged expiratory sound at the apex of the right lung, and extremely feeble respiration, with loud and much prolonged expiration at the left apex. The pulse had risen to 120. From this time his chest symptoms increased rapidly ; his cough became frequent, and prevented his sleeping at night ; the expectoration changed its character, and became muco-purulent, and he lost his appetite. The bowels, however, remained regular, and the motions of a healthy colour.

On the 3rd of January he was suddenly seized with intense agonizing pain in the abdomen, followed by collapse, from which he was roused with difficulty ; the whole abdomen became exquisitely tender on pressure, and he was troubled with occasional hiccup. He remained in this state until the evening of the 5th, when he died.

The *post-mortem* examination gave the following results. Body extremely emaciated ; right lung adherent to the thoracic parietes by old adhesions. At its apex was a small empty cavity, about the size of a hazel-nut, the walls of which were ragged, and covered with a dark purple grumous matter ; a few crude tubercles existed at the apex, and miliary tubercles were scattered sparingly throughout the lung. Its edges were emphysematous. There was no vomica on the left lung, but miliary tubercles were tolerably abundant throughout its structure. The heart was healthy.

On opening the abdomen a small quantity of turbid serum, mixed with flakes of recent lymph, escaped ; the intestines were glued together by recently-effused lymph, and fluid fæces existed in the cavity of the peritonæum. The fæces were found to have escaped through an ulcerated opening which existed in the ileum about three feet above the ileo-cæcal valve. On laying open the intestine it was discovered that the whole of the ileum was extensively ulcerated, and that ulceration to a less extent prevailed throughout the colon. In the ileum the mucous and muscular coats of the bowel were dissected away in bands about half-an-inch in breadth, encircling the whole cylinder of the intestine. These large ulcers were numerous and at regular intervals throughout this portion of the bowels, there being about twenty-five in a length of five feet of intestine. Besides these larger and deeper ulcers, there were many small patches of ulceration affecting the mucous coat of the bowel only, and here and there in the

sub-mucous tissue were small deposits of scrofulous matter. The large intestine was similarly, but not so extensively, ulcerated, the ulcerations being most numerous and largest in the caput and ascending part of the colon. The mesentery was loaded with crude tubercle. The kidneys were shrunken, small, and granular. The other abdominal viscera were healthy.

DR. HENRY FULLER, 17th of January, 1860.

14. *Perforating ulcer of the stomach.*

J. C., æt. 18, a footman, was first seen about nine o'clock on Wednesday evening, 11th of January; he was in bed, and complained of sharp pain in the lower part of the abdomen, principally on the left side, his skin was cool, the pulse small, and he had had no rigors. He had been engaged all day in moving furniture, and carrying it up and down stairs, and he had partaken of his meals as usual; at eight o'clock, shortly after a hearty supper of mutton, he had vomited, and then the pain above-mentioned came on; the previous evening he had been dancing and singing, and had supped heartily of roast pork; the bowels had been but scantily relieved for the last two days. There was no history of previous stomach disorder. A dose of calomel and opium was given, to be followed by a purgative draught next morning. On the morning of the 12th, the bowels not having acted, castor oil was ordered, and a gruel enema; his general condition was much the same—the pulse perhaps a little weaker—the pain still existing, but not increased. At six P.M. he was seen again; the bowels had been moved; he expressed himself as “greatly relieved,” and was very cheerful; soon after rapid collapse came on, and when seen about eight P.M., he was already moribund and died in a few minutes, within twenty-four hours of the vomiting with which his illness commenced.

Post-mortem examination.—There was considerable effusion, amounting to between two and three pints, in the abdomen, and the peritoneum and the whole of the intestinal canal bore very evident marks of recent and chronic inflammation; floating in the serum were several large flakes of lymph, and numerous globules of oil; and on the inferior and anterior surface of the stomach, rather nearer the cardiac than the pyloric end, was a small circular hole with sharp clean edges. On opening the stomach, its general appearance was healthy, but in the place above-mentioned was a round ulcer with elevated, thickened edges; the diameter of the internal surface of the ulcer was three-eighths of an inch, that of the external two-eighths; its walls were five-eighths of an inch thick, moderately firm, and gradually melting down into the healthy structure. There was no marked vascularity.

The castor oil evidently had escaped through this opening into the abdominal cavity.

The case is noteworthy, because of—

I. The age and sex of the patient.
 II. The entire absence of any previous symptoms of disease. The patient was intelligent and observant, and had at one time lived with a chemist; his mother was also questioned, and from neither could anything be learnt of attacks of vomiting or pain in stomach or bowels, or of any symptoms of dyspepsia.

III. The mildness of the symptoms when this fatal illness began, and the suddenness and rapidity of the collapse.

There is no parallel case in the records of the Society.

Dr. CHOLMELEY for Mr. HEWLETT, 21st of February, 1860.

15. *Calculus from the tonsil.*

This was ejected from the right tonsil of a highly scrofulous person, a married woman, æt 43. The history was the existence of sore-throat, great pain in the ear, with discharge of thin fœtid matter, then a gathering of the tonsil occurred, with shivering, &c., great swelling of the throat, difficulty of swallowing, and a choking sensation. During a violent fit of coughing the tonsillar abscess burst, with the ejection from the mouth of the calculus, along with a great flow of matter with which it was surrounded, mixed with blood. Immediate relief followed. Next morning a distinct cavity was visible in the inflamed tonsil from which the calculus had escaped; it was still discharging matter. She was treated on general principles, and got quite well, although the ear has been painful since, for she has become the subject of eczematous eruption all round the lobule and at the side of the head, an affection from which she often suffers, and generally gets rid of it by arsenic. When first I saw the calculus, I declared it to be the seed of a mangold wurtzel which she had, I fancied, drawn into the bronchus, but I soon found it to be very hard and stony. Dr. GIBB for Dr. BAKER, of Dawlish, 6th of March, 1860.

Report by Dr. Gibb on the above specimen.—The calculus weighs three grains and a-half, is as large as a pea (Plate III., Fig. 4), with an irregular nodulated surface, resembling a small mulberry calculus, and possesses a light-brown colour. On chemical examination, I find it to be composed chiefly of the carbonate of lime, with some of the oxalate, and animal matter. I have no doubt that it is the resolution of tuberculous deposit in the tonsil, which subsequently gave rise to inflammation, suppuration, and its consequent ejection.

16. *Malformation (by excess) of the peritoneum.*

The specimen exhibited consisted of the small intestine and part of the colon, showing the almost entire envelopment of the small bowel by a duplicature of peritoneum which served as a kind of bag in which they were contained. The patient was a man who died of some disease wholly unconnected with the abdomen.

Post-mortem examination.—Scarcely any of the intestine was observable at first sight on opening the abdominal sac, by reason of the presence of this unusual portion of peritoneal membrane, which almost entirely covered them, and bound them down.*

This additional membrane appeared to be a supplemental fold of the mesentery of the ascending colon.

Remarks.—The specimen showed how unusual congenital formations might, in certain instances, when disease supervened, add very greatly to ordinary risk; as it was obvious that in cases where the free movement of the intestinal coils ought to be preserved, but was from any cause endangered (as for example, in the later stages of peritonitis, or certain forms of invagination, hernia, intestinal obstruction, &c.), such an envelopment of the bowels as the above specimen showed, might prove the source of very great embarrassment to their movements.

Dr. JOHN OGLE, 6th of March, 1860.

17. *Tubercular peritonitis.—Softening of the brain.*

The patient from whom this specimen was taken was a very active and intelligent girl, *æt.* 12, one of ten children, who died 12th of February, 1860. She had menstruated once; she had a fit when about seven years of age, and was insensible for some time; but with this exception, she had been free from serious indisposition. The parents, as far as could be ascertained, were tolerably free from scrofulous taint; the father's brother died of hæmorrhage from the lungs, but there was but a small deposit of tubercle. She was first seen in December, 1859, when she stated that she had been indisposed for some time, but was able to attend to her ordinary duties. The face was pale, and the features sharp and "nipped up;" the abdomen very large, with occasional darting pains, but not of a severe character, and pressure was borne tolerably well. She had also generally a lax state of bowels, and sometimes *diarrhœa*. At this time tubercular peritonitis was thought to be present, but as the swelling of the abdomen entirely

* The specimen is preserved in St. George's Hospital Pathological Museum, as No. 1, Sub-series ii., Series xxxiii.

subsided, and as the other symptoms improved after a week or two, the first impression was thought to have been erroneous.

She was seen again on the 4th of February, in consequence of pain in the head which was referred more to the anterior part; on the third day she seemed to be in a comatose state, but the administration of turpentine enemata and other means appeared to effect a great amendment in the symptoms; she progressed favourably until the 12th, when, after eating her dinner in bed, she fell back and expired almost instantly.

Post-mortem examination.—On opening the cranium, about four tablespoonsful of blood and serum escaped, the vessels on the surface of the brain being very vascular. On the posterior, lateral, and upper part of the cerebrum was a small red place on the surface, which was soft and pappy, the brain substance around being of a creamy consistence; the substance of the brain generally was very vascular; the heart flabby, and nearly empty; the blood fluid. The apices of both lungs were consolidated, and in one portion was a small, softened tubercle. The spleen was small and pulpy, the liver, pancreas, kidneys and supra-renal capsules healthy. The whole of the intestines were covered with round, light-coloured tubercles, about three times as large as an ordinary sized pin's-head; they were less abundant on the peritoneal surface of the abdominal muscles. Probably their number was not far short of ten thousand. Under a low power they were seen to be very vascular, large vessels surrounding their bases, and numerous vessels of a smaller calibre running in nearly straight lines from one to the other. The tubercular matter consisted chiefly of amorphous particles, with a few small refractive globules, about $\frac{1}{20000}$ of an inch in diameter. On distending a portion of the intestine with air, these tubercles, after a few days, disappeared to a great extent.

Remarks.—This form of tubercle is not uncommon in some of the lower animals, in the young ruminants, and in birds especially. The drawing of this lesion in a young *Leucoryx* (*Antelope Leucoryx*), shows the great resemblance to that in the human subject. The case in question is especially interesting as showing the insidious nature of the disease. The subsidence of the abdominal swelling led me to suppose that I had, in the first instance, formed a wrong diagnosis. The soft circumscribed portion of brain was, probably, originally of a tuberculous character, and, possibly, a small scrofulous tubercle might have occasioned the fit spoken of in the history of the case. I have reason to believe, from the examination of this disease in the lower animals especially, that the deposit is chiefly of an albuminous character, and often of rapid formation.

Dr. CRISP, 6th of March, 1860.

18. *Intus-susception of the lower end of the ileum.*

This case continued eleven days. Early in the morning, the child, a boy æt. 3, awoke suddenly and ran to the pôt, where he passed a free motion with considerable pain and tenesmus, which continued for some time: after this, though there were very frequent attempts, and a desire to have motions, nothing passed the bowel except the injected fluids of gruel, beef-tea, and such matters as were thrown into the gut, and which occasionally were just tinged with excrementitious matter, and a little bloody mucus.

Sickness was not an urgent symptom until after the first three days, when it became frequent, and after the sixth, stercoraceous. There was great thirst, a pale countenance, and a rather quick, feeble pulse.

There was very slight pain in the body, and that was neither fixed nor constant, nor was there much tenderness at any time in any one place, but pressure was followed by nausea and vomiting; no hardness could be satisfactorily felt.

There was, after the first four or five days, considerable distention and noise from flatus, which was said to have been two or three times passed per anum. This may be doubted.

The case was correctly diagnosed from the first, and as no inflammatory symptoms were present, the treatment was rather expectant than active, the main endeavour being to keep up the strength by every means.

The child died rather suddenly from exhaustion.

Post-mortem examination.—A long portion of the ileum was found to have passed through the ileo-cæcal valve into the large intestine. There was no appearance of inflammation whatever; neither lymph nor fluid were effused. The peritoneum was of natural hue and texture. The small intestines were distended with flatus, but free from fæculent matter. The large intestines were contracted and empty.

At least a foot of the ileum had passed through the ileo-cæcal valve.

Mr. NUNNELEY, 20th of March, 1860.

19. *Portion of omentum removed from a young man under the supposition that it was a piece of protruding lung.*

There had been a drunken night fight, in which the patient, a man, had been stabbed with a large clasp-knife by another person, whom he had thrown on the ground, and was standing over, and struggling with. The part instantly protruded, and he became faint, but was able to walk three miles over a most wild, rugged country, climbing over several stone walls.

He was not seen by the medical man till three or four hours afterwards, when the protruding portion was dark and discoloured from congestion. It was immediately cut off.

The next day, having to meet the surgeon who attended the man, he told me that he had cut off a large portion of lung, when I begged it, and at once found his mistake. In a fortnight the man walked three miles to see me, when the wound had nearly healed, and in less than a month he was at his work as a collier, and again drunk, and fighting. He never appeared to be at all ill. The wound was just under the cartilage of the seventh left rib. How the stomach and diaphragm escaped it is difficult to say.

The portion of omentum cut away measured nine inches wide, by from three to four inches deep.

MR. NUNNELEY, 20th of March, 1860.

20. *Organic stricture of the rectum.*

The following case illustrates well some points in the history of organic stricture of the rectum.

The slow progress of the case, and development of the symptoms, so gradual and unmarked by any impairment of the general health, that the obstruction had attained a degree of development amounting to almost total occlusion of the bowel before the man applied for relief, and this while the body continued to be well-nourished, and even to accumulate fat to an extraordinary degree, are points of much interest.

The stricture was evidently the consequence of chronic ulceration resulting from dysentery, and occupied the usual site of such affections, about six inches from the anus. The existence of ulceration of the cæcum in such cases has been remarked, and was present in this instance. The explanation of this circumstance would appear to be, that the walls of the cæcum are more easily affected by the distending pressure of accumulating fæces, which ultimately results in ulceration.

It is worthy of remark, that the perforation occurs at a point of the bowel which, being contiguous to the walls of the abdomen, is most conveniently placed for the formation, by a natural process, of a means of relief to the distended bowel.

This complaint is said to be rarely observed in patients over sixty years of age; in this case the man was considerably over that age, being seventy-nine. He was of a large frame, and very fat.

On the 21st of February, 1860, he complained of pain in the bowels, loss of appetite, and constipation, which he stated had existed for three days. The abdomen was excessively large, partly from obesity, and

partly caused by tympanic distention, which, becoming gradually greater, interfered considerably with the respiration.

Several purgatives were given, and enemata administered without effect. The stomach became irritable, vomiting set in, and soon became fæulent in character. Up to the 26th he continued unrelieved, occasionally taking food, and sleeping, the pulse at the same time remaining little altered. On the morning of that day, however, during a violent fit of retching, he suddenly expired, apparently from suffocation. It was ascertained afterwards from his friends, that he had suffered from symptoms resembling dysentery a year or two before.

Post-mortem examination.—The stricture was found about six inches from the anus, occupying the entire circumference of the bowel to the extent of about three-quarters of an inch, the passage through it being contracted so as barely to admit the tip of the little finger. The mucous surface of the strictured part was completely destroyed, the healthy membrane, both above and below, terminating abruptly in an elevated, hard, and rugged edge.

The constriction was caused by a thick deposit of new material, of almost cartilaginous hardness, existing in the situation of the muscular coat of the bowel. On examination under the microscope, this appeared to be formed of simple fibrous tissue, no cancer cells being detected.

The large and small intestines were immensely dilated above the stricture, and distended with fluid fæces. In the cæcum, on its anterior aspect, was a small ulcer, through which fæulent matter oozed on pressure; and in the transverse colon the cicatrix of an old ulcer was observed. Commencing peritonitis existed in the region of both iliac fossæ. With the exception of concretions in the gall-bladder, the liver was healthy, as were also the other abdominal viscera.

Dr. JOHN C. MESSER, 20th of March, 1860.

21. *Analysis of cases of perforation of the bowel in the course of typhoid fever.*

As demonstrator of morbid anatomy at St. Thomas's Hospital, it has fallen to my lot to examine a considerable number of cases of typhoid fever. These I have lately analyzed, and have been particularly struck by the large proportion of them in which death was caused by intestinal perforation. Some of the results at which I have arrived, in reference more especially to the latter complication, I propose to lay before the Society.

The exact number of fatal cases of which I have preserved records is fifty-two. Of these twenty-eight were of males, and twenty-four of

females; one occurred between 5 and 10 years of age, eight between 10 and 15, nineteen between 15 and 20, ten between 20 and 25, eight between 25 and 30, five between 30 and 35, and one at 42. In eight instances the patients died before ulceration had been thoroughly established in the diseased Peyerian patches, and evidently from the uncomplicated effects of the typhoid poison. In nine cases death occurred late in the disease, and when many of the ulcers had become more or less perfectly cicatrized, from perforation, from relapse, or from pneumonia, pleurisy, abscess, or debility dependent upon other causes. In the remaining thirty-five examples, the fatal termination took place at various periods between the above limits, either as in the first class, from the direct influence of the disease itself, or from this associated, as in the second class, with diarrhoea, intestinal hæmorrhage, bed-sores, pulmonary mischief, or perforation and peritonitis.

The small intestine was the seat of specific disease in every instance, the colon in twenty-seven cases. The mesenteric and other glands connected with the bowels, were, I believe (although their condition is not always recorded), invariably affected to a greater or less extent, being large, soft and congested, presenting at times a fibrinous deposit, or even actual suppuration. In addition to the complications mentioned in a former paragraph, I observed, in one case, cicatrices in the stomach; in another (that of a boy 10 years of age), half-a-dozen recent shallow ulcers in the same organ; in a third, a sloughy ulcer in the groin connected with diseased lymphatic glands; and in a girl of 17, who had been suffering from gonorrhœa, superficial gangrene of the genital organs, together with a phagedænic condition of the intestinal ulcers. I have never yet met with laryngeal disease, nor have I recognized any visible affection of the brain beyond mere congestion. I may add, that my cases confirm the statement that there is no necessary connection between the intensity of the general symptoms of the disease, and the extent of the intestinal mischief.

The remarkable tendency which typhoid ulcers have to produce perforation of the bowels is shown by the fact, that this lesion had occurred in no less than fifteen of the above fifty-two cases, or in a proportion of one in rather less than 3.5. It happened eleven times in males, four times in females; a disproportion, dependent in great measure, doubtless, on the different nature of their respective avocations, which in the milder cases of the disorder may be carried on up to the very instant of perforation. One individual died therefrom between 10 and 15 years of age, seven between 15 and 20, one between 20 and 25, two between 25 and 30, and one between 30 and 35, a result, which seems on the whole to indicate that age exerts no special influence in its production. The periods of the disease at which it took place will,

perhaps, be better judged of by the condition of the ulcers at the time of death, than by the history; in nine it occurred during the process of separation of the sloughs, in five after the sloughs had become completely detached, and in one while cicatrization, excepting only in the ulcer perforated, was progressing. The number of ulcers present, and the degree of the general symptoms seem, neither separately nor in combination, to have exerted much influence in producing the lesion in question, for in at least two instances (Cases 3 and 7) the patients, though complaining, continued at work up to the very moment of its occurrence; in several others, the febrile attack was more severe, though still mild, and in several also (Cases 4, 5, 6, 8, 13), the accident occurred during symptoms of great or extreme intensity. Further it appears, that in five cases the ulceration was really very slight, and that in the remaining ten, it was more or less severe, in some instances indeed to an extreme degree.

This is not the place to detail symptoms, but I may briefly state, that in the cases in which the antecedent illness had been slight, and in which the patient was conscious, the access of peritonitis was characteristically indicated; and that in the remaining cases, the symptoms resulting from perforation were more or less indefinite, in exact accordance with the degree of mental and bodily prostration of the patient; and that, therefore, in some instances, as might be supposed, the occurrence of the lesion was revealed post-mortem only. The interval between perforation and death, rarely exceeded a day or two, but varied between a few hours (Case 10), and two weeks (Case 3).

In every case the perforation had occurred in the ileum, and generally in quite the lower part. In one instance, the orifice was found two inches from the valve, in another, at a distance of two yards, and in the remainder at various points intermediate between these extremes. The actual perforation was, I believe, without exception due to laceration; at all events, I may venture to say, that in every case in which speedy death ensued, the perforation was more or less linear in form, and the edges consequently, though somewhat irregular, tending to a parallel direction. Nevertheless, this character was masked in various ways, as by adhesions binding the lips of the orifice to one another, or to some neighbouring loop of intestine, or by the occasional extreme tenuity and softness of the floor of the perforated ulcer. The size of the orifice was generally sufficient to admit a No. 4 or 6 catheter; but now and then little more than a mere pinhole.

The inflammation of the peritoneum following perforation was indicated by patchy congestion of its parietal layer, and of that covering the stomach, intestines, and pelvic organs, together with a certain amount of soft lymph smeared with more or less uniformity over the serous

surface, and producing generally slight adhesions between contiguous viscera. There was present also a variable amount of gas, and of faecal matter; the latter, incorporated usually with lymph and pus, and if sufficiently abundant, accumulated in the pelvis, or some other dependent portion of the abdominal cavity.

There are still two points to which I wish to draw attention, the importance of which has been impressed upon me by more than one case that has come under my observation. They are points indicating a tendency towards cure, which might perhaps scarcely have been suspected in such cases as those under consideration, but which (taken in conjunction with the actual progressive improvement temporarily manifested in some instances) hold forth a glimmering hope, which should not be lost sight of in the treatment which we may adopt. The first is, that in consequence of the disposition of parts in the abdomen, there is a great tendency for the peritonitis to become circumscribed. The great omentum, with the parts to which it is attached, forms a natural septum between the upper and lower halves; and we sometimes find inflammation strictly limited, through its instrumentality, to the lower half, in cases of typhoid perforation,—to the upper, when the liver or stomach is the primary seat of disease. The closure of the foramen of Winslow, again, occasionally forms a bar to the spread of inflammation from the sac of the great omentum, and conversely; while adhesions among the small intestines, and between them and neighbouring parts, not infrequently limit inflammation and its results to one or other lumbar region, to the pelvic cavity, or even to some more unlikely situation than these. The second is, that there is a great tendency for the perforation itself to become closed by adhesions, and this within a very short period of its occurrence. So that, in a considerable proportion (six) of the cases which I have examined, I have failed, notwithstanding the presence of foetid gas, and of actual faecal matter in the peritoneum, to recognize any communication between the intestine and abdomen, until I have torn the very slight, though distinct, adhesions by which the margins of the orifice had become connected with some adjoining organ.

It is quite clear, therefore, that notwithstanding the almost utter hopelessness of these cases, there is still a curative effort on the part of nature—firstly, to close the orifice by lymph, and thus to prevent further extravasation; secondly, to limit the material poured out, by adhesions between surrounding organs, to that portion of the abdominal cavity which is contiguous to the seat of mischief, and thus to circumscribe the more serious results of the accident. Of course, if the opening be large, or the effused faecal matters abundant, the probability is that the patient will die so speedily that little or no indication will be

presented of either of the above curative processes. But if the perforation be small, and a mere weeping of the contents of the bowel have occurred, there seems no reason whatever (so far as the actual condition of parts is concerned) why the patient might not recover, without further complication. And even if a yet larger amount of matter have escaped, and this have become circumscribed by adhesion, there is still no reason derived from local considerations, why he should not ultimately do well, even though the progress of the case would necessarily be retarded by the formation of a peritoneal abscess, which must discharge itself either through the intestines or abdominal parietes, or by some still less favourable route.

The case, numbered (3) in the appended Table, though it proved ultimately fatal, affords some justification, on other than pathological grounds, for the remarks just offered. And I may add, that some two or three years ago, I had under my charge a case, since published in the *Medical Times and Gazette*, of a little girl who recovered, after paracentesis, from an attack of circumscribed suppurative peritonitis. This I believed at the time to have been due to perforation of the bowel occurring in the course of a slight attack of typhoid fever. But the mildness of her antecedent symptoms, and her final recovery, combined to render the case inconclusive.

Cases of Perforation of the Bowel in Typhoid Fever.

| Sex. | Age. | Condition of Intestine. | Site, etc. of Perforation. | Condition of Peritoneum. | Associated Lesions. | History. |
|------|-------|--|---|--|--|--|
| 1 | M. 17 | Ulcers in lower half of ileum, numerous, and from one-third to two-thirds of an inch in diameter. Thick, yellow sloughs covered many of them; from others, the sloughs had partially or entirely separated. Colon healthy. | Still patent perforation, one-eighth of an inch across, about two feet from the cæcum. | Peritoneal inflammation limited almost exclusively to lower half, in consequence of adhesions between great omentum and parietes. Much lymph, mixed with fecal matter, spread over the surface of the viscera. A pint of pea-soup-like fluid in the pelvis. Patchy congestion. | The mesenteric glands large, vascular, one or two containing pus. Spleen pulpy. Mucous membrane of lower two-thirds of cesophagus black and pulpy, without gangrenous odour. | Had suffered from diarrhoea and febrile symptoms. On the eleventh day, peritonitis supervened. On the twelfth, he was brought into the Hospital. The symptoms of peritonitis were then well marked, but he was quite sensible. He died the next day. |
| 2 | F. 28 | Lower third of ileum presented a few ulcers, from half - an - inch in diameter downwards. Their margins and bases were a little shreddy, the sloughs having apparently just been cast off. Colon healthy. | At two feet from the valve, an unadherent perforation, one-eighth of an inch in diameter, and evidently produced by laceration. | No inflammation above the great omentum. Below that, serous surface congested, and lined by soft, yellow, fecal-smelling lymph. A tablespoonful or two of thick yellow fluid in pelvis. | | At the time of admission, she had suffered for more than a week with febrile symptoms, and vomiting; she was then very feverish, with tender abdomen and dryish tongue. On the evening of the fifth day of her stay in the Hospital, she was attacked with sudden collapse, and intense abdominal pain. She died the next morning. She had not at any time suffered from diarrhoea, or presented any |
| 3 | M. 15 | Several of Peyer's patches in lower part of ileum congested, and presenting here and there a shallow ulcer, from the | Perforation in one of the deep ulcers, one foot and a-half from the valve, still | General peritonitis, producing adhesions. Milky fluid in pelvis. Circumscribed cavity in right lumbar region, contain- | Recent pleuritis at base of the right lung. Large, soft, vascular mesenteric | December 18th, first attacked with very slight febrile symptoms, without diarrhoea. Continued at work until Christmas day, when peritonitis came on suddenly. Was brought into the Hospi- |

| Sex. | Age. | Condition of Intestine. | Site, etc. of Perforation. | Condition of Peritoneum. | Associated Lesions. | History. |
|------|-------|--|--|---|---|--|
| 4 | F. 29 | size of a split-pea downwards. Two or three ulcers were somewhat deep, and to one or two a slough still adhered. Colon healthy. | patient and large enough to admit a No. 4 catheter. | ing thick, yellow, offensive puriform fluid, and communicating directly with intestinal perforation. | Spleen glands. Spleen healthy. | tal on the 1st of January, with all the symptoms well-marked, and died on the 8th. No diarrhoea or rash. Quite sensible to the last. (Report "Path. Trans.," Vol. viii., p. 203.) |
| | | Numerous ulcers in lower half of ileum, all covered by thick, partially - detached yellow sloughs. Two, just above valve, severally as large as a five-shilling piece. Colon healthy. | A small perforation, closed by adhesions, two or three inches above ileo-caecal valve. | A little turbid fluid in pelvis. Peritoneum of right half of abdomen much congested, and covered with a little recent lymph, producing slight adhesions. Left half of peritoneum healthy. | A film of recent lymph at base of left lung. In lower lobe of left lung, and middle lobe of right, a gangrenous (?) cavity. Spleen firm, but pulpy. | Had been destitute, and suffering from cold, cough, and debility for six weeks. Latterly getting worse. On admission, feeble, emaciated, confused in manner, with bad appetite, rapid pulse, and dry fissured tongue. No eruption or diarrhoea. On the fifth day, diarrhoea set in; delirium at night came on about the same time; and the symptoms of typhoid fever, with the exception of eruption, became well-marked. She continued without improvement up to the fourteenth day, when (without other manifest change in symptoms) it was noticed that the abdomen had become extremely tender. She died next day. |
| 5 | M. 34 | Numerous ulcers, from the size of a split-pea to half-a-crown, throughout lower half of ileum. The sloughs had separated; the edges had become, for the most part, sharp and well - defined, and the fibres formed by either the muscular coat or sub- | I have no doubt, from the character of the peritonitis, that perforation had occurred in this case; but, owing to an accident, the actual orifice was lost sight of. | General peritonitis, with slight effusion of lymph, and adhesion, most marked in right iliac fossa. A little turbid yellow fluid in pelvis. | Spleen pulpy. | Had been ill three weeks (when admitted) with febrile symptoms, and occasional delirium, without diarrhoea. On coming in, pulse 80; expression confused; tongue red, glazed, and chapped; typhoid rash; fulness and tenderness of abdomen; delirium at night; bowels regular. Continued in much the same state for eight days, then diarrhoea set in. He sunk rapidly, gave no distinct indica- |

| Sex. | Age. | Condition of Intestine. | Site, etc. of Perforation. | Condition of Peritoneum. | Associated Lesions. | History. |
|------|-------|---|--|---|---|---|
| 6 | M. 12 | serous tissue. In some, indeed, the serous membrane alone separated them from the peritoneal cavity. Half-a-dozen ulcers in lower half of ileum, from half-an-inch in diameter downwards. A few similar ulcers in colon and caecum. Sloughs separated. | Small perforation, scarcely allowing the passage of a probe, and concealed by the surrounding exudation, one foot from caecum. | Contiguous coils of lower half of ileum, attached to one another by a little recent lymph. Three or four ounces of dirty yellow puriform fluid in pelvis. General peritoneal surface healthy. | Lobular pneumonia. Glands in the neighbourhood of the caecum large, and infiltrated with fibrinous deposit. Spleen pretty firm. | Had been ill two weeks with headach, diarrhoea, and pain in the back. On admission, had a vacant look, flushed face, hot skin, furred tongue, diarrhoea, pain in the head, back and limbs, and rapid pulse. He gradually got worse. His pulse got more rapid and feeble. He became delirious; passed his motions unconsciously; his tongue became dry and almost black; his teeth covered with sordes. The abdomen was tender, and somewhat tumid throughout; the bowels, generally, more or less relaxed. A few rose-spots appeared in the course of his illness. He died fifteen days after admission, without manifesting any distinct signs of perforation. |
| 7 | M. 31 | Five ulcers only in ileum—three just above caecum, and two a yard higher up. Sloughs separated. Colon healthy. | Small perforation, one yard from the caecum, temporarily closed by adhesions. | A pint of thin pea-soup-like fluid in the abdomen. Peritoneal surface congested, and lined by a thin layer of soft yellow lymph. | Slight pleurisy at base of both lungs. Spleen congested. | Admitted in the evening. He stated that he had had diarrhoea for a fortnight, but had continued at his work. That morning, at five A.M., was suddenly attacked with severe abdominal pain, sickness, and collapse. On admission, he manifested all the usual symptoms of acute peritonitis, and died the next day, at half-past three P.M. |

| Sex. | Age. | Condition of Intestine. | Site, etc. of Perforation. | Condition of Peritoneum. | Associated Lesions. | History. |
|------|-------|--|--|---|---|--|
| 8 | M. 15 | Numerous ulcers in lower half of ileum, from the size of a sixpence downwards. The sloughs had separated, but cicatrization had not commenced. Numerous small ulcers existed throughout the colon, with tumid edges, and adherent fragments of sloughy tissue. | About a foot from the caecum, a slit one-eighth of an inch long, evidently produced by rupture. | General peritonitis; congestion; slight adhesion; dirty-looking lymph smeared over peritoneal surface. Two pints of thick, greenish-yellow, foetid fluid in pelvis. | Spleen healthy. | Had been ill, on admission, nine days, with fever and diarrhoea. He had then well-marked symptoms of typhoid fever; but during the following fortnight he improved decidedly and quickly. He then had a relapse. Uncontrollable diarrhoea came on, tenderness of abdomen, delirium, &c. He died eleven days after the commencement of the relapse, without well-marked peritonitic symptoms. |
| 9 | M. 19 | Seven or eight ulcers in lower third of ileum, from the size of a sixpenny-piece downwards. In all, except the one perforated, cicatrization was going on. Colon healthy. | Perforation, six inches from the caecum; edges of orifice adherent to a neighbouring coil of intestine. | General peritonitis, with effusion, on surface, of dirty-yellowish fibrinous effusion, having a foetid smell. | A little recent lymph at the base of both lungs. Spleen soft. | Died fifteen days after admission. No history. |
| 10 | F. 22 | Numerous large ulcers in lower three feet of ileum, covered with yellow sloughs, here and there partially detached. Colon healthy. | Perforation two feet and a-half above the valve; a lacerated opening, large enough to admit a cedar pencil; and in an ulcer from which a slough had partially separated. | A quart of offensive, turbid, purulent-looking fluid, chiefly in the pelvis. Numerous shreds of soft opaque lymph were scattered over the viscera, causing slight adhesion. | Slight lobular pneumonia. The spleen pretty healthy. | Had been ill two weeks with symptoms of fever, but without diarrhoea, pain, or tumefaction in the abdomen. On admission, her symptoms were those of mild fever; the next day a little diarrhoea came on; and on the morning of the next, symptoms of collapse suddenly appeared, but without very severe abdominal pain. She died the same afternoon. |
| 11 | M. 30 | Numerous and large ulcers throughout ileum, most advanced below. The lowest ulcers were | Perforation; a vertical slit, large enough to admit a No. 6 catheter, | A pint of turbid yellow fluid, with flakes of fecal matter in pelvis. General peritonitis, with con- | Congestion, swelling, and softening of mesenteric glands. | Died thirteen days after admission. No history. |

| Sex. | Age. | Condition of Intestine. | Site, etc. of Perforation. | Condition of Peritoneum. | Associated Lesions. | History. |
|------|-------|--|--|--|--|--|
| | | denuded; the uppermost ones were still covered by sloughs, here and there partially detached. Two or three ulcers in colon. | closed by adhesions, situated two yards from the caecum, in a patch from which the slough was separating. | gestion, and effusion of soft dirty - yellowish lymph. | | |
| 12 | M. 16 | Extensive ulceration in last yard of ileum. Disease in every stage. Above, patches thickened only; a little lower, sloughs had formed, and, just above the valve, had become detached. A few ulcers in caecum and colon. | Half - a - foot from the caecum, a perforation large enough to admit a No. 4 catheter; closed at time of post-mortem examination by lymph. | A quart of offensive pea-soup-like fluid in lower part of belly. General congestion, and effusion on peritoneal surface of greenish - yellow soft lymph. Inflammation much more intense below the great omentum than above it. | Many mesenteric glands enlarged, soft, and vascular. Several formed bags of reddish purulent fluid, with traces only of the original gland-tissue. | Died two days after admission. No history. |
| 13 | M. 16 | Extensive ulceration throughout whole length of ileum; sloughs detached. A few small ulcers in the caecum. | Perforation one foot from caecum, about a line in diameter. | General peritonitis, with a pint of turbid yellow fluid in the pelvis. | Slight pleurisy at base of right lung. Large, soft, vascular mesenteric glands. | Admitted in the third week of the fever. Had had diarrhoea, and had passed blood by stool. Pulse quick and feeble; tongue dry, brown, and tremulous; confused; abdomen tender. The diarrhoea continued; became more severe on the seventh day after admission; and he died the next day, without having shown decided symptoms of perforation. |
| 14 | F. 17 | Numerous ulcers throughout ileum; some covered with sloughs, others denuded. At upper | Roundish perforation of small size, a foot from caecum. | A little patchy congestion in lower half of peritoneum. A small circumscribed cavity, containing | | Died seven days after admission. No history. |

| Sex. | Age. | Condition of Intestine. | Site, etc. of Perforation. | Condition of Peritoneum. | Associated Lesions. | History. |
|------|-------|--|--|--|---|--|
| | | part, Peyer's patches thickened only. Colon healthy. | | fecal matter, and communicating freely with the intestine, was formed by the cohesion of contiguous coils of ileum, in the immediate vicinity of the caecum. | | |
| 15 | M. 14 | Numerous ulcers, from the size of half-a-crown downwards, in lower four or five feet of ileum. Large sloughs, partially detached, adhering to the upper ones. Lower ones denuded, and beginning to cicatrize. Colon healthy. | A small lacerated opening, in a patch from which the slough was separating, about two feet from the ileo-caecal valve. | General peritonitis, most marked below the great omentum. A pint of thin yellow fecal fluid in the pelvis; and much lymph adhering to the surface of the intestines, and gluing them together. | Spleen pretty firm. Mesenteric glands swollen and vascular. | Died five weeks after admission. No history. |

Dr. BRISTOWE, 3rd of April, 1860.

22. *Abscess in the abdominal walls, in connection with cancer of the stomach.*

J. R., æt. 54, a feeble emaciated man, was admitted into the Middlesex Hospital, on the 21st of February, 1860, with a firm elastic tumour, painless, but slightly tender on pressure, occupying the left hypochondrium, and of the size of a cricket-ball.

According to his own account, this tumour had existed for five weeks, and had been preceded by slight "twisting" pains in the abdomen, for which he had taken purgative medicine.

On admission, his skin was dry; pulse weak, 100; tongue covered with a thick dry fur; secretions natural; no difficulty of deglutition, but his appetite was very soon satisfied, and he said he felt each morsel of food pass to a particular spot, which he referred to the lower border of the tumour.

On the night of the 27th, he had rigors; and on the 28th, distinct fluctuation was detected in the tumour.

On the 3rd March, the abscess was opened, when a large quantity of very offensive pus escaped. It possessed, however, no fæcal odour.

This operation was followed by marked temporary improvement; but on the 15th, the wound, which appeared nearly closed, re-opened, and sinuses began to form in various directions in the abdominal walls. His appetite now failed again; sickness occurred on two or three occasions; he sank gradually, and died on the 16th April.

Post-mortem examination.—The abdominal walls were found to be perfectly riddled with sinuses, which traversed them in every direction. On opening the abdomen, the pyloric extremity of the stomach was found to be firmly adherent to the abdominal walls, an inch above, and to the left, of the umbilicus,—a spot corresponding very nearly to that to which the deceased had referred his sensations in swallowing food. The pyloric half of the stomach was in an advanced stage of malignant ulceration; but no communication existed between the cavity of the stomach and the sinuses in the abdominal walls.

Immediately below this point of adhesion, the transverse colon was firmly adherent both to the abdominal walls and to the pyloric extremity of the stomach. It showed, however, no other trace of disease. The other organs were tolerably normal. Dr. COOTE, 1st of May, 1860.

23. *Rupture of the sac of a large oscheocele.*

A man, æt. 72, the subject of cardiac dropsy, was admitted into the London Hospital under the care of Mr. Adams. He had had for many years a large hernia on the right side, which had latterly much increased,

being so voluminous as to conceal from view the penis, and to descend to the middle of the thigh. Forty-nine hours before admission, while in the act of walking across his room, he struck the hernial tumour forcibly against a stool. He lived for fifteen hours after admission, and fifty-five after the receipt of the injury. The original shock had induced a state of collapse under which he sank, being in fact moribund when he came in. On the *post-mortem inspection*, the hernial tumour was found to contain the lower third of the ascending colon, the cæcum, all the small intestines, with the exception of the upper four or five feet, and omentum. The intestinal folds in relation with the lower part of the sac were of a slatish colour and highly congested. An irregular somewhat zigzag rent traversed the lower posterior and left part of the sac (the tunica vaginalis being situated below and to the right of the rent); it was seven inches in length, and opened into the sub-scrotal tissues which were black and infiltrated with blood-tinged serous fluid and coagula. Similar fluid and masses of blood occupied the sac above the rent. Nearly the whole of the scrotal integument was livid and ecchymosed. Mr. N. WARD, 1st of May, 1860.

II. LIVER.

24. *Cancer of the liver.*

The particulars of the following case were furnished by Mr. Thomas C. Kirby, under whose observation the patient came:—

E. P., æt. 50, was for many years a domestic servant (upper nurse). She had one son, æt. about 20, by a former marriage.

Her health was pretty good until two years ago, when she suffered from an attack of what appears to have been melancholia, and was sometimes incoherent.

She was married for the second time eight weeks before she was seen by Mr. Kirby, and soon after her marriage she had applied for medical aid, saying she was "suffering from the effects of some poisonous material that her husband had introduced into the vagina, the effect of which had been to cause lumps and knots in her inside." This delusion at least marks the time when she first observed the abdominal tumour. She had taken to her bed, and, on examination, a tumour was discovered in the right hypochondriac region, the position and nature of which, as far as it could then be felt, led to the inference that the disease she ascribed to improper treatment from her husband was due to some disease of the liver, probably of a carcinomatous nature. The exact measurements of the tumour, which then reached quite to the position of the stomach in the left hypochondrium, were

not marked out, but on subsequent visits a further enlargement of the tumour became apparent, showing how rapidly it was increasing, and it continued to grow until it almost filled the abdomen, reaching nearly to a line from the right to the left anterior superior iliac spine.

The health of the patient from the time she was first seen (that is seven weeks before her death), gradually declined; the countenance and skin assuming a sallow appearance. About two weeks before death the legs and feet became very œdematous, and her breathing, about the same time, became shorter as the diaphragm was pressed upwards by the mass.

About one week before death, slight jaundice was observed all over the body, especially on the ocular conjunctiva, and this increased so rapidly that she became quite yellow, and remained so up to the time of death. As the jaundice increased she lost sleep, and occasionally wandered. She suffered much from retention of urine, but after this had been removed once, she was greatly relieved, and had a daily sufficient evacuation from the bladder afterwards. The bowels at this time were very costive, and from this cause, together with the presence of the enlarged liver and great tympanitis, the distention of the abdomen was such that the skin was stretched almost to cracking; the umbilicus protruded, and the transverse colon could be distinctly seen and felt. There was, even from the first, pain on pressure over the liver, and this became, before death, so much increased, that she could scarcely bear to be touched: in those parts to which the mass did not reach, the abdomen was not tender.

Post-mortem examination. — Lungs healthy, but right one very œdematous; no traces of tubercle; no excess of fluid in pleuræ.

Heart: one slight atheromatous spot in pulmonary artery, and cartilaginous thickening of the mitral valve; walls of the left ventricle a little thickened.

Peritoneal cavity contained about three pints of coffee-coloured liquid.

Liver: weight, nine pounds twelve ounces; peritoneum adherent. On the surface of the organ there were various elevations of yellow colour, differing in size from a penny-piece to four or five inches in diameter; these elevations indicated the position of masses which varied in size from a small orange to a child's head at birth, and which, of course, descended deeply into the substance of the organ; they were of a white creamy colour, and stiffish consistence; similar lobular masses (in all, six) were well seen on the under surface of the liver, the Spigelian lobe being the only one unaffected. Microscopically, the white substance consisted of irregular-shaped cells, with an eccentric nucleus and nucleolus, and some black-looking granular matter.

The stomach appeared healthy. Intestines, large and small, appeared unaffected; they were not opened. Spleen small, healthy. Uterus contained a nodule in the fundus the size of a marble; this, microscopically, seemed to be composed of cells the same as those above described. The cervix also was thickened with a deposit of the same material.

In the axilla, the glands were felt slightly enlarged; none above the size of horse-beans: they were not examined post-mortem.

Dr. HARE for Mr. THOMAS C. KIRBY, 15th of November, 1859.

25. *Cases of Cancer of the liver.*

The two following cases are published as affording unusually interesting specimens of cancer of the liver.

In the first there was a remarkable tendency in the hepatic tumours to become cystic, as shown by the fact, that a large number of them, small as well as large, were in this condition.

In the second, the malignant growth instead of forming isolated masses, had extended from the lesser omentum into the transverse fissure of the liver, and thence continuously around and along the ducts to almost their smallest ramifications.

CASE 1. *Cystic cancer of the liver.*

M. C., a girl, æt. 16, was admitted into St. Thomas's Hospital, on the 29th of September, 1859. Her health began to fail three months before admission; but she only became seriously ill a month since. She then began to suffer from severe pains in the lower part of the back, which soon became constant. About the same time she noticed swelling and tenderness about the left hip-joint; and shortly afterwards her legs became weak.

On admission she was in a febrile condition, with rapid pulse, furred tongue, and constipated bowels. There was imperfect paraplegia, most complete on the left side; and a tumour on the left side, supposed to be a periosteal growth from the ileum.

She gradually sank, bed-sores formed, and she died of exhaustion on the 18th of December.

Post-mortem examination.—Extremely emaciated; œdema of feet; bed-sores on sacrum and elsewhere.

Chest.—There were a few pleural adhesions, with some serous effusion, and numerous lenticular cancer-patches from half-an-inch in diameter downwards scattered over the lungs. The lungs were somewhat œdematous, sparsely crepitant, and, below, a little consolidated. Cancerous

infiltration extended inwards from the surface along the interlobular septa. A small cancerous mass arising in the anterior mediastinum involved the anterior surface of the pericardium, which was otherwise healthy. The heart was natural.

Abdomen.—Peritoneum healthy. The liver was of moderate size, and its general substance healthy. It was, however, irregularly and somewhat thickly studded with cancerous growths from two inches and a-half in diameter downwards. All of these were well-defined and globular, or nearly so, in form. Such as involved the surface of the organ presented in that situation a more or less accurately circular outline. The larger of these projected more or less considerably, and one as much as three-quarters of an inch; but the smaller ones formed no projection whatever. Almost all of them, the smaller equally with the larger, were cupped, and some very deeply so. The growths presented almost uniformly an opaque white colour and softish consistence, and yielded abundance of creamy juice. One—the largest—had a large quantity of blood effused into its substance. And a considerable number of them—a dozen or twenty at least—were hollowed out in their interior into cysts. Some of the tumours, from the size of a chesnut to that of a marble, were thus cystic; but what is more remarkable is, that the smallest growths—those between the size of a pea and that of a tare—were cystic as frequently, and in an equal degree. The fact being, that there was a general tendency to the formation of cysts, which was quite unconnected with the age or size of the tumours. The cysts varied from the size of a filbert downwards; were sometimes half the diameter of the masses of cancer in which they were contained, but quite as frequently larger or smaller in proportion. Their walls were irregular, and formed of a flocculent or filmy whitish fibrous material prolonged from the surrounding cancerous matrix. Sometimes the central portion of the tumours was multilocular, the partitions between the loculi being formed solely of the flocculent material just described. The contents were in all cases a transparent, but somewhat glairy fluid. The cysts in those tumours which abutted on the surface of the liver were generally visible externally, in consequence of the thinness of their outer parietes. Some of these became ruptured in the course of manipulation, and their outer wall subsiding into the opposite concave aspect of the cyst, produced so exactly the cup-shaped character presented by some of the non-cystic masses, that it suggested itself as not improbable that the cupped condition of the latter had been produced during life by a similar process.

None of the buff-coloured patches, due to fatty degeneration, were anywhere visible.

The kidneys were large, and irregularly but copiously infiltrated

with cancer. Many of the lymphatic glands about the upper part of the lumbar spine were cancerous, and a large tumour of the same nature grew from the periosteum (both external and internal) of nearly the whole of the left ilium.

The cancerous growths consisted for the most part of nuclei; but the fibrous structure, constituting the parietes of the hepatic cysts, was formed solely of a close network of minute fibrillæ, little, if at all, different from that presented by ordinary coagulated fibrine. No pus or other cells were detected in the fluid contents.

CASE 2. *Cancerous infiltration of Glisson's capsule.*

W. H., a man æt. 68, was jaundiced, and died of cancer of the stomach. (The case is recorded, with a description of the pathological condition of the thoracic organs, in a paper of mine on cancer of the lung, contained in the present volume.)

The liver was small; its surface presented a few peritoneal cancerous nodules. The lesser omentum was infiltrated with scirrhus; this extended into the transverse fissure, involving the walls of the duct, and rendering it almost impervious; compressing also, to some extent, the vena portæ. On making sections of the liver, its tissue was found generally healthy, but of a dark olive-green hue; and it was discovered that the scirrhus infiltration, beginning in the transverse fissure, had extended along the capsule of Glisson into the interior of the organ, surrounding the ducts and branches of the vena portæ, even to their smallest ramifications. The amount of it, however, present in different parts varied; it was relatively more abundant around the smaller ducts and in the left lobe, and was sometimes accumulated into masses sufficiently large to look, on section, like distinct cancerous tumours. Few or no distinct tumours, however, such as are generally observed, were present.

A collapsed hydatid cyst, about as large as a walnut, was subsequently discovered in the substance of the left lobe.

Dr. J. S. BRISTOWE, 17th of January, 1860.

26. *Liver from a lad, after a cart-wheel had passed over his body.*

The lad, æt. 13, when brought to King's College Hospital was bloodless and dead, or on the point of death, and quite insensible and pulseless. There was no outward sign of bruise on the body.

Post-mortem examination discovered extensive laceration of the back part of the under surface of the right lobe of the liver, from which had proceeded a vast quantity of dark blood, effused into the cavity of

the peritoneum in front and behind the stomach; the blood was clotted. There was no other injury. Though the laceration of the liver bordered on the hepatic vena cava, the coats of that vessel were untornd.

Mr. R. PARTRIDGE, 17th of January, 1860.

27. *Hydatids of the liver escaping by the gall-ducts.*

A man, æt. 50, was admitted into Guy's Hospital, under Dr. Barlow's care, on the 11th of January, 1860. He stated that he had been ailing for some time, with symptoms denoting an hepatic affection, and a month before admission had an attack of jaundice. When admitted, his skin was still yellow, the abdomen was tender, with a fulness at its upper part; the patient was also in a very low state, with pyrexia, &c. He subsequently had a general peritonitis, and died on the 18th of January.

Post-mortem examination showed all the abdominal organs matted together by recently-effused lymph; and the parietes so closely connected to the liver, that on attempting to remove them, a large cyst in the latter organ was opened. This was found to be a very large suppurating hydatid, the walls of the cyst being very thin, and in parts perforated; a sloughing process was going on towards the diaphragm and pericardium. The liver contained three or four other hydatid cysts, in which suppuration was also proceeding; purulent matter was also found in the substance of the liver, the inflammatory process having proceeded along the course of the portal vessels. On opening the large cyst first mentioned, and removing a large number of hydatids, the lining membrane of the sac was found lying loose within it, and on attempting to remove it, it was found to have penetrated a large hepatic duct which opened into the interior. On further examination, the membrane was found passing into the main gall-duct, and so into the duodenum, in the interior of which the membrane was seen escaping: and if any force had been used, the whole might have been easily removed. The membrane lay coiled round on itself in the form of a cylinder, and very much distended the hepatic duct. Judging from appearances, it seemed that if the cyst had not ruptured above, so as to have caused the peritonitis, the whole of the hydatids might have been discharged into the duodenum.

Although this is one mode in which hydatids of the liver escape, yet it is amongst the rarest, it being the second case only in which we have observed it. In the other case the cysts were vomited and passed by the bowel, but the patient subsequently died from the inflammatory process set up about the liver and ducts.

Dr. WILKS, 7th of February, 1860.

28. *Abscess in the liver, in connection with ulceration and stricture of the rectum.*

A man, æt, 37, was admitted into Guy's Hospital, under Dr. Barlow's care, on the 6th of January, 1860, exceedingly ill with high febrile symptoms, yellowness of the skin, delirium, &c. He stated that he had been taken ill five days before, but that he was the subject of a stricture of the rectum, and that some instruments had been passed previous to his admission. He rapidly sank, and died on the 7th.

The *post-mortem examination* showed a diffused suppuration through the liver. There were no distinct abscesses, but a purulent infiltration had occurred in all parts, and thus certain groups of lobules were merely marked out by the presence of the pus. The tissue around was soft, and of a green colour. The neighbouring duct was distended with bile, and the portal vein was occupied by a brown-coloured coagulum; all the smaller veins were thus filled, and the main trunk was filled with a brown or dirty-coloured fluid, resembling the coffee-ground matter found in the stomach after hæmorrhage. The same state of blood existed in the splenic and mesenteric veins, down to the smaller branches of the large intestine, which also contained coagulum. The gall-bladder was full of a curdy yellow bile.

The rectum was very much diseased, to the extent of about four inches from the anus, the mucous membrane showing recent ulceration and abrasion; but the existence of long-standing inflammation was more marked. Projecting from the anus were large hæmorrhoids completely surrounding the opening; these consisted of tough fibrous tissue, and, proceeding upwards into the gut, the mucous membrane was quite destroyed, and replaced by a dense cicatrix. The calibre of the gut was thus much narrowed, and would scarcely admit the finger, while it cut with the consistence of cartilage. The new tissue, which formed one with the dense cellular structure beneath the mucous membrane, did not abruptly terminate above, but ended by sending long processes into the mucous membrane, which, in like manner, passed downwards into the cicatrix below: and here it was that the membrane showed a breach of surface, either by ulceration or laceration. There were no fistulæ, and no suppuration externally. The submucous tissue and the muscular coat were thickened and hypertrophied for a considerable distance up the bowel. The other organs of the body were healthy, excepting an ecchymosed condition of the lungs and heart.

Dr. WILKS, 7th of February, 1860.

29. *Enormous distention of the bile ducts, probably from stricture of the hepatic duct, the result of the passage of gall-stones.*

The patient, a man *æt.* 76, was admitted into St. George's Hospital on the 18th of January, on account of jaundice, from which he had suffered for only one month. He had never had jaundice before. He was an old soldier, having served all his best days in Napoleon's Polish Legion. He was frostbitten at Beresina, and again at Moscow; was wounded at Austerlitz, and received a sabre-cut at Vittoria. He was also at Waterloo, but escaped unhurt. Having been recently expelled from France, on account of republican opinions, he gained a precarious livelihood by selling pencils about the streets of London, and was obliged to live chiefly on sprats. To this diet he attributed his illness, so that its symptoms must have been recent. Six weeks before admission, he had been seized with cold and rigors. The jaundice appeared a fortnight after this, accompanied by intense itching of the skin. He complained of but little pain, but on being questioned, he pointed to the region of the liver as the seat of some discomfort. The liver could be felt distinctly with a smooth edge below the ribs, and the liver-dulness extended to within half-an-inch of the nipple. There was no tenderness in the hepatic region. The urine was deeply bilious. The motions contained a little bile. As the disease progressed, however, the tint of the skin became deeper, and the motions more entirely devoid of bile. The appetite disappeared; the tongue was dry and the pulse weak. About the end of the month, the skin began to assume a greenish hue, and the cutaneous perspiration stained his linen yellow. He continued to get weaker and thinner, and the tint of his skin to darken, until he died on the 11th of February.

Post-mortem examination.—No part of the body was examined, except the liver, and the parts in its immediate vicinity. The liver was of rather small size, dark in colour, quite smooth on the surface, and presenting, here and there, impressions which looked like cysts lying immediately below the peritoneal coat. This was especially the case towards its left end, on the inferior surface. These being cut into, a glairy mucus exuded, almost colourless, and the cavities were found to be dilated bile ducts. (Plate III., Fig. 3.*) The dilatation was principally on the left side of the liver, and had advanced to such an extent, that the left branch of the common bile duct was about the usual size of the vena cava; and several bile ducts might be traced, near to their commencement on the surface of the organ, as large as the carotid artery. The gall-bladder was distended with very dark-coloured bile. The cystic

* The Preparation is now in St. George's Hospital Museum, as No. 3, Sub-series 2, Appendix to Series 26.

duct appeared at first impervious, and no bile could be forced out of the gall-bladder by pressure ; but, upon laying open the ductus communis, a probe could be passed up the cystic duct into the gall-bladder, which contained dark-coloured bile. The coats of the hepatic duct were much thickened, and the duct extremely contracted for about half-an-inch above its junction with the cystic duct ; but it was not quite impervious, as a small probe would pass through it. The ductus communis choledochus was of the usual size, patulous, and smooth ; it was dissected into the duodenum. The coats of the strictured ducts were much roughened by old ulceration, and the length of the hepatic duct appeared less than usual. In the cellular tissue of the small omentum were numerous small, hard concretions ; but nothing resembling a gall-stone was seen ; nor did the concretions yield cholesterine on being tested. On examination of the tissue of the liver with the microscope, the hepatic cells were easily found, and a few of them contained the elements of bile. The majority, however, were empty.

This case appeared to bear a great resemblance to those of stricture of the urethra which follow on injury, and subsequent ulceration of the mucous membrane of the urethra. In the latter, as in this, the mucous lining of the injured canal is found rough, irregularly tuberculated, and raised by effusions of lymph into the submucous cellular tissue, the free surface also has lost its smooth shining appearance, and looks rough and irregular. The canal behind becomes more and more dilated, as the obstruction increases, until as the latter is about to become total it ulcerates, and the secretion finds a way out by a fistulous orifice. As the pressure is transmitted farther up to the secreting tissue of the kidney, the quality of the secretion is altered, and the symptoms of uræmic poisoning supervene. The pathological action in the present case seems to have been precisely similar, with the exception of the formation of fistulæ, and it seems to be quite possible, that, had the strength of the patient enabled him to bear up against the constitutional effects of the jaundice, the dilated hepatic duct might have given way behind the stricture and extravasation of bile into the cavity of the peritoneum have been the result. In default of any other probable way of accounting for the ulceration of both cystic and hepatic ducts, while the ductus communis choledochus remained free from disease, it is assumed, that this must have resulted from the passage of gall-stones ; notwithstanding the total absence of any history of pain in the region of the liver at any previous period, or of any previous attack of jaundice.

Mr. T. HOLMES, 21st of February, 1860.

30. *Acute development of fungoid growth in the liver.*

In October, 1858, I was consulted by an elderly maiden-lady, on account of a painful tumour in the right breast, which she stated she had only perceived three weeks, and attributed to having worn a tight dress. She was stout and the breasts naturally large and fatty.

There was a tumour evidently of a scirrhus character, which probably had only been called into notice by the pressure of the dress, causing some inflammation. None of the axillary glands were enlarged. She at first refused an operation, and found relief from lead lotions and other treatment. Early in January, 1859, I removed the breast, a good recovery was made, and she became apparently quite well. In June and July she paid a visit to a distant part of the country of several weeks' duration. On her return towards the end of July, she complained of acute pain in the right side of the body, which she stated was brought on a few days before by over-fatigue in long walks. Rest and treatment afforded some relief, but the pain never entirely left her, and towards the end of August, she noticed a fulness in the body, with some difficulty of breathing. These symptoms rapidly increased, the body becoming very large and lobular, the liver being easily traced by the hand over nearly the whole abdomen; and she died exhausted at the latter end of October.

The liver was found three times its natural size, and infiltrated throughout its entire extent with medullary fungoid matter. No other organ was abnormal, and the cicatrix in the breast was free from disease, but one gland in the axilla had acquired the size of a large hazel-nut.

Remarks.—This case affords not only an instance of the very rapid development of fungoid disease, but also another, of what has frequently been observed, of the existence of true hard scirrhus in one organ, and of soft, rapidly growing, sarcoma in another.

Sometime ago I opened the body of a gentleman, who died suddenly from effusion of blood into the medulla oblongata when about to return home, apparently well, after the removal of an eyeball affected with melanosis. In the anterior ethmoidal sinus was a mass of medullary cancer; in the frontal sinus was a colloïd cancer; in two of the ribs osteo-sarcoma; in the omentum, mesocolon, and mesentery, a great many globular masses of perfectly black melanotic matter; the appendices epiploicæ were as black as soot, and the surface of the bladder had five or six black patches, while under the pulmonary pleuræ were three or four patches as hard as scirrhus.

I had sometime before removed the semilunar fold of the conjunctiva for what I considered melanosis, but which the patient maintained

was a portion of coke, which got into his eye while travelling on a railroad fifteen years before. He had suffered much from the intrusion at the time, and had noticed its presence ever afterwards.

Mr. NUNNELEY, 20th of *March*, 1860.

31. *Hydatid tumour springing from the liver, occupying the situation of, and resembling, a distended cæcum and ascending colon.*

The specimen was removed from a subject in the Charing Cross Hospital Dissecting Room. On opening the abdomen, a tumour was found by my colleague, Dr. Goldsbro', Demonstrator of Anatomy, occupying the whole of the right iliac, lumbar, and hypochondriac regions, displacing the intestines which would have occupied that situation; the cæcum and ascending colon being displaced so far to the left as to occupy the middle line.* The tumour rested upon the iliac fascia below, and extended up in front of the psoas, quadratus lumborum, and right kidney, to the under surface of the liver, to which it was found to be attached, and a portion of which had to be cut away with it, in order to its removal from the abdomen. Its appearance was exactly that of the distended cæcum and ascending colon, for which it was mistaken; and this opinion was only corrected when it was found to be quite independent and perfectly unattached to any part of the alimentary canal.

The kidney behind it was healthy, and *in situ*. The great omentum covered its anterior surface and sides. On removing the mass, it was found to consist of a membranous sac, of an elongated cæcal form, covered by peritoneal vessels, having an appearance of being loculated or pouched, as if consisting of aggregated cysts, and distended with some gelatinous or semi-fluid material. Above and to the left, a portion more isolated than the rest, and immediately attached to the liver, was hard and bony, but still compressible, and evidently containing fluid, and from an accidental rupture of its posterior part a material like red-currant jelly exuded. The lower part of the tumour was drawn out into a cæcum, with traces of transverse strictures, giving it exactly the appearance of the large intestine. From an accidental cut in this part, a greyish material, something like stale gelatinous pus, exuded. The whole surface of the tumour was covered by intersecting bands of adventitious fibrous tissue, such as one always sees covering tumours in the peritoneal cavity.

On cutting into this tumour it proved to be hydatid, and to have sprung from the liver, to the under surface of which it was, by a small

* Prior to opening the abdomen, there was no appearance externally (so far as inspection went) to lead to the suspicion of the presence of any tumour.

portion, attached. It consisted of a single parent cyst, with thin membranous walls, and its contents differed a good deal in the parts most remote from the liver and those contiguous to it. The parts most distant from the liver, and, indeed, nearly the whole cyst, contained a pulpy grumous material, the same as that just mentioned above as resembling stale gelatinous pus, which had very little the appearance characteristic of hydatid structure, but which, on a closer examination, evidently was so, and consisted of the broken-up and decayed walls of hydatids. It had the true hydatid smell. This portion was of a dirty-grey colour; as you passed up towards the liver it became redder, and near that organ was of a bright cherry-red, and quite of a different character from the more distant portions, consisting of perfect and independent hydatids, having bright clear walls, and varying in size from a pin's-head to a hazel-nut, the larger ones with collapsed walls, the smaller ones spherical, all closely packed and involved one among the other, but easily picked out.

Microscopical examination.—On examining the smallest cysts, the characteristic concentric lamination of their walls was well seen; the same was seen in the fragments of the large cysts. Floating about among the cysts were innumerable small, light-yellow spheres, looking like yellow beads. These, on examining them under the microscope, were seen to consist of cholesterine embedded in a semi-solid clear oil. Echinococci and their hooks were in vain searched for; not one could be found. There can be no doubt that this was a simple hydatid tumour of the liver. It was chiefly remarkable for its slight attachment to that organ, the distance to which it had extended, its elongated shape, its close resemblance to the viscera it displaced (cæcum and ascending colon), and the gradual transformation which it exhibited of the secondary hydatids when in a process of decay.

Dr. HYDE SALTER, 3rd of April, 1860.

V.—DISEASES, ETC., OF THE GENITO-URINARY ORGANS.

SUB-SECTION I.—KIDNEYS, BLADDER, CALCULI, ETC.

1. *Atrophy of the bladder consequent on vesico-vaginal fistula.*

The fistulous opening was of large size, extending from the neck of the bladder to the orifices of the ureters; the orifice of the left ureter being in the margin of the aperture, that of the right only just within the vesical area. The coats of the bladder were so reduced as to be no thicker than ordinary mucous membrane; the capacity of the organ was much diminished.

Mr. NUNN, 1st of November, 1859.

2. *Congenital extroversion of the bladder.*

The preparation consisted of the genito-urinary organs removed from a child in whom a portion of the anterior wall of the abdomen and front of the bladder were wanting. The child was born in the Marylebone Infirmary, on the 17th of December, 1859, and with the exception of the congenital deficiency, seemed a healthy infant. When the mother was convalescent from her confinement, she left the maternity department of the Infirmary, and was lost sight of until she brought the infant, some months after, to the Samaritan Hospital. It was then suffering from the effects of bad feeding, the mother having entrusted its nursing to the care of another woman, that she might follow her own employment. A careful examination of the malformation was made at this time, and the posterior wall of the bladder was found to be prolapsed through the opening in the abdomen, forming a tumour the size of a peach, from the lateral surfaces of which there was a constant oozing of fluid, and the source of which was traced to a small papilla on each side, corresponding to the openings of the ureters. The urethra was open throughout its whole extent, and at its termination on each side were folds of integument and mucous membrane corresponding to the labia majora and nymphæ. Death took place eventually from inanition.

At the *post-mortem examination* it was found that there was no trace of umbilicus, the upper margin of the opening in the abdominal walls reaching as high as the usual situation of the umbilicus. The anus and lower bowel were normal in conformation, but no aperture existed between the open urethra and anus, nor was there any other trace of external genitals, except the lateral cutaneous and mucous folds before-mentioned. There was no symphysis pubis or recti-abdominal muscles, and the pubic bones were represented merely by an osseous nodule which formed part of the cotyloid cavity. Strong fibrous bands passed across from these bony nodules to the base of the bladder, thus replacing the symphysis pubis, and giving attachment to the oblique muscles. An uterus, ovaries, and Fallopian tubes were present and well-formed. The vagina was of the usual proportions for an infant, but occluded at its lower extremity. The distribution of the vessels and nerves in the pelvis was normal, and the obliterated hypogastric arteries were traced upwards behind the extroverted bladder, and had evidently emerged before birth in the central line, at the upper margin of the tumour.

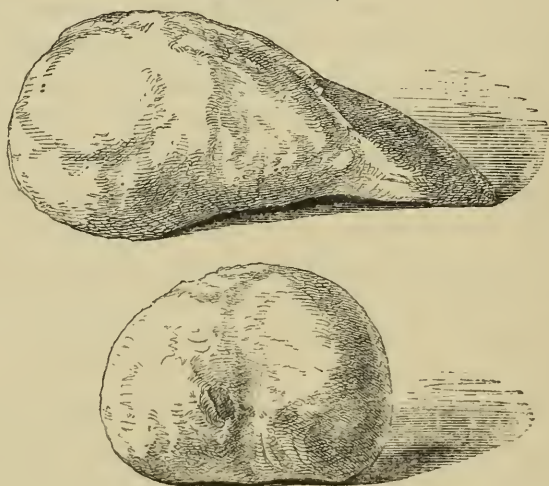
The chief interest of this case lies in the fact of the subject of the malformation being a female,—extroversion of bladder being much more frequent in the male sex. Dr. Andrew Duncan who wrote an elaborate paper on congenital deficiency of the bladder, in the *Edinburgh*

Medical and Surgical Journal for 1805, could only find eight female cases recorded. Mr. Earle found on searching the records of such cases, that eight occurred in females, sixty in males. Mr. M'Whinnie states, that out of nine cases seen by himself, two only were females, and G. St. Hilaire considers that the usual proportion according to sex, is a fourth only in females. Dr. PRIESTLEY, 1st of November, 1859.

3. *Large pyriform calculus from the urethra of a boy.*

This calculus (Woodcut 7) was removed by Mr. Christopher Heath

WOODCUT 7.



Represents the calculus of the natural size, in two positions, the lower figure giving a view of the anterior expanded portion from the front.

from the bulbous portion of the urethra of a boy *æt.* 14. It closely resembles the head and beak of a bird in shape, being two inches and one-eighth in length, and one inch and a-quarter across at the broadest part. The large end was most anterior, the point going back towards the bladder, the convexity being downwards, and the opposite surface grooved by pressure against the corpora cavernosa. It is composed of phosphates, the nucleus being quite in the anterior part of the stone, and the darker portions containing an excess of animal matter: when dry, it weighed three ounces. The operation was performed in June, 1859, and the boy made an excellent recovery.

In February, 1854, he had had lithotomy performed upon him, when a single stone was removed, and he did not accurately know when the urethral stone first appeared. Projecting in the scrotum, it had, at first sight, somewhat the appearance of a third testicle, and, although so large, gave very little inconvenience, the stream of urine being but slightly twisted.

It appears probable that a small stone had re-formed in the bladder after the lithotomy, and had then found its way forwards into the urethra, though it has been suggested that the concretion may have formed on the old cicatrix, and then have been pushed forward.

MR. CHRISTOPHER HEATH, *1st of November, 1859.*

4. *Coral-shaped and other calculi from both kidneys; pus in one, and blood in the other.*

T. B., æt. 27, died the 1st of October, 1859, with symptoms of renal calculus. He was operated upon for stone twelve years ago, but I could not ascertain the size or character of the calculus removed. I removed three small calculi composed of phosphate of lime, from the membranous portion of his urethra two years ago. The urine had constantly for some years been mixed with pus, and for some months before death, with blood in large quantities.

The right kidney was found to be (excepting a band of healthy tissue across its middle) but a mere shell filled with gravel and stones of various sizes, *with bloody urine*. An irregularly-flattened and dark-coloured stone, consisting of phosphate of lime with colouring-matter, weighing sixty-two grains, filling the pelvis.

The left kidney was enlarged, with numerous sacculi containing *pus*, the pelvis was filled with an arboriform calculus of a whitish colour, not unlike a piece of branch coral, and weighed over two drachms and a-half. There were many smaller calculi of different shapes, and several fragments broke off the large specimen in taking it out. All the calculi in this kidney were composed of the triple phosphates, and many of them were covered with well-defined and beautiful crystals, which presented a striking appearance with a pocket-lens.

The ureters were much dilated, and the mucous membrane of the bladder slightly congested; neither contained any stones or gravel.

The chief points of interest in the case, were the presence of blood in one kidney, with calculi composed of phosphate of lime coloured black by animal matter; and in the other kidney, pus, with calculi composed of triple phosphates, many of them studded with beautiful crystals, especially visible on the extremities of the coral-shaped specimen.

DR. GIBB for MR. J. H. THOMAS, *15th of November, 1859.*

5. *Tubercular disease of the bladder and urethra.*

H. G., æt. 32, had been ailing for two or three years with purulent urine, but had never placed himself under medical treatment until he came to Guy's Hospital with a perineal abscess. This was opened;

but it then being found that he was labouring from internal complaints, he was placed under Dr. Wilks' care. He was then exceedingly ill of advanced phthisis, having a perineal fistula, and purulent urine. After lingering for some weeks, he died.

On *post-mortem examination*, the body was found to be much wasted, and the lungs disorganized, and the intestine the subject of tubercle. This disease was comparatively recent to that found in the right kidney, which was much enlarged, and converted into one mass of scrofulous matter. Some of this had softened into a pus-like material, and scarcely a trace of the original tissue was left. The left kidney contained also a mass of similar deposit. The right ureter was much dilated, and its walls thickened—the interior containing a tuberculous deposit. The left was similarly, but less affected. This disease had extended downwards to the bladder:—thus, on the exterior of this organ, the vesiculæ seminales were converted into the same material, and on the interior, a large patch of tuberculous ulceration existed. The whole of the *trigone* was thus affected, the parts above the ureters being quite healthy. The margin of the diseased part was composed of distinct tubercles, which were softening in their centres; but all within the edges consisted of a broken tuberculous surface. This condition extended over the surface of the prostate, and along the membranous and spongy portion of the canal, as far as the middle of the latter. In the membranous portion, a softening and ulceration had occurred, which had given rise to the perineal abscess.

The case was brought to the Society, as affording an example of the method in which tuberculous disease of the bladder takes place: that is, that it is secondary to more deep-seated disease in the abdomen, and does not occur as a primary disorder; that, generally, the kidney has been long affected; and that in the course of years the disease creeps down the ureter to the neck of the bladder. The affection is analogous to tuberculous disease of the uterus, which, in like manner, is an affection secondary to tuberculosis of abdomen, the disease in this case passing down the Fallopian tubes to the inner surface of the uterus. There would be more strict analogy between such and a case which the author has seen, where a tuberculous disease of the testis had travelled along the spermatic cord to the surface of the prostate. The analogies of the uterus and prostate have been shown, not only in their structure, but in their diseases; and they are again also witnessed in this tuberculous affection, whereby their interior is covered with tubercle which has proceeded from one of the canals leading thereto.

Although the two diseases in the male and female appear thus to be secondary, and to have only a pathological interest, it so happens, that owing to the primary disease often being unattended by any manifest

DESCRIPTION OF PLATE V.

The Figures illustrate Mr. Lawson's case of Encysted Calculus,
p. 139.

Fig. 1. Represents the stone, of the natural size, in the position which it occupied in the bladder.

Fig. 2. Represents one half of the bladder, and shows the large pouch (*a*) in which the stone had been retained.



♀

Fig 1



Fig 2

symptoms, it is not until an organ which is nearer the exterior of the body is involved, that advice is sought; and thus it has happened, that the surgeon in the one case, and the obstetric physician in the other, are the first who may be consulted in the matter. Thus, in the present instance, a perineal abscess first brought the patient to the surgeon; and in a very similar case, an extravasation occurring, surgical treatment was, first of all, required. Dr. WILKS, 15th of November, 1859.

6. *Sacculated stone in the bladder. Lithotomy. Fatal result.*

J. M., æt. 65, late a corporal in the 16th Hussars, was admitted into the Great Northern Hospital, on the 23rd of July, 1859, labouring under all the usual symptoms of stone in the bladder. He dates the first symptoms as far back as 1819, when he suffered intense pain in the loins, for which he was treated in the Bristol Military Hospital.

He was discharged unrelieved, but after long suffering, he one day, on attempting to micturate, passed a calculus from the bladder into the urethra, where it became impacted; was subsequently removed by a surgeon. Still, however, experiencing great annoyance from his old symptoms, he was in 1820 invalided from the army. Since that period, he has continued to suffer more or less from pain in the loins, and has, at various times, passed gravel and small calculi by the urethra.

His urine, as far as he can remember, has, ever since his first attack, deposited a tenacious ropy sediment.

The present urgent symptoms commenced about eighteen months since, and have continued to increase in severity.

The condition of the patient on his admission into the Hospital, was that of extreme emaciation and debility. He had an almost incessant desire to pass his urine, and complained of a heavy dragging pain in the loins.

His urine deposited a large amount of mucus, and some pus. No casts were detected under the microscope. I examined the bladder with a sound, and found a stone, evidently of large size, and lying close to the prostate. On the 29th of July, I performed the usual operation of lithotomy, and removed a large lithic acid calculus.

Some difficulty was experienced in catching hold of the stone with the forceps, in consequence of its resting in a pouch, from which it was not easily dislodged.

The stone, of which the chromo-lithograph (Plate V., Fig. 1) is a good representation, presented an appearance characteristic of its having remained for some time partially encysted.

A clear margin around its circumference marked the depth of its seat in a pouch; while above this line there was a copious reddish

deposit, evidently of more recent date than that which formed the bulk of the stone. The patient progressed very favourably for the first fortnight, but afterwards he slowly sank, without exhibiting any untoward symptom beyond extreme exhaustion, and died at the end of three weeks after the operation.

Post-mortem examination.—All the abdominal viscera were healthy, with the exception of the bladder. The mucous membrane of this organ was much thickened, and at the neck of the bladder there was a large pouch (Plate V., Fig. 2), which extended into the prostatic portion of the urethra forming a distinct sacculus. This pouch was of the size of the calculus, and lined with calcareous matter, mixed with a tenacious mucus.

Mr. LAWSON, 20th of December, 1859.

7. *Old rupture of the kidney, healed.*

Mr. Holmes exhibited two kidneys taken from a patient, in whom the right kidney had been ruptured by the kick of a horse, eighteen months previously: he was thirty-six years of age at that time, and in good health, as far as was known. On the 2nd of June, 1858, he had been grooming a horse with his right elbow bent in front of his body, when the animal kicked him over the elbow, striking him also on the hepatic region. He was brought immediately to St. George's Hospital, being conscious, at first, only of the injury to the arm. The fracture was put up, and he was then so unaccountably faint that he was put to bed. He seemed at the point of death, breathed only in gasps, and the pulse was exceedingly feeble. It was conjectured that some internal hæmorrhage was going on; and soon it was found that the belly was swelling, and this swelling increased rapidly. Very large quantities of wine were given, and in a few hours the man somewhat revived. In the evening he passed water with large quantities of blood in it. Next day, a small quantity of blood appeared in the urine, and none afterwards. Gallic acid was now administered in half-drachm doses every hour, as the effusion into the peritoneum seemed to be on the increase. This remedy was persisted in for two days. The belly then seemed less tense, but continued very tender. A course of calomel and opium was then commenced, and the fluid appeared to be rapidly absorbed. A very large bruise showed itself over the part struck (*viz.*, the right hypochondrium), a few days after the accident. The man was discharged cured on the 20th of July. The case was supposed at the time to be one of rupture of the liver, with perhaps some injury to the kidney, and was so reported in one of the Journals. Nothing more was seen of the man till the 14th of December, 1859, when he was admitted for dropsy, of six weeks' standing, of which he died in a few days. There was no history of

illness previous to the accident, all that he said on that point being, that he had been subject to pain in the loins, and that for a year or two, his urine had been increased in quantity, and had been passed with undue frequency.

On *post-mortem examination*, numerous old adhesions were found uniting the right lobe of the liver to the diaphragm. No distinct mark of injury to the liver could be seen; except that, at the upper part of the gland, just to the right of the suspensory ligament, was a small round red spot, looking like an old ecchymosis. On section, this was seen to be confined to the capsule (which looked a little puckered round it), and not to penetrate at all into the substance of the liver.

Both kidneys were small, granular, and full of cysts. The cellular tissue around the right kidney was much consolidated; and on making a section of the gland, a large clot of blood was seen to occupy its pelvis and interior, communicating also with the exterior, where a considerable quantity lay in the subperitoneal cellular tissue. The line of rupture could be faintly traced through the substance of the gland.* The ureter, where divided, about one inch and a-half below the hilus, was found to be completely impervious.

It seems reasonable to suppose that dissections of kidneys which have been the subject of accidental injury sometime previous to death should be on record, since the accident is one from which recovery is very common; but I am not able, at present, to refer to such an account. In the present instance, the points of chief interest in the dissection are, the morbid condition of the kidneys, the obstruction of the ureter on the injured side, the singularly fresh appearance of the blood-clot so long after the accident, the traces of old peritonitis around the liver, and the dubious appearance of bruise on the surface of that organ. With respect to the disease of the kidneys, the most probable supposition is, that it existed previous to the accident, since, otherwise, we should have expected some difference in the size of the two kidneys, and in the appearance of their surface. If this is so, it is singular that a man with granular degeneration of the kidney should have recovered from so extensive a lesion of that organ, and still more so, that he should have remained in perfect health for above a year, with only one kidney, and that in a state of extensive degeneration. The symptoms during life obviously indicated the lesion of one of the abdominal viscera, but both the nature of the accident, and the sudden distention of the peritoneum, appeared to point much more to the liver than the kidney, and the transience of the hæmaturia (caused as the dissection proved, by obstruction of the ureter by the clot), naturally increased that impression. That some

* Preparation now in St. George's Hospital Museum, as No. 4, Sub-series 1, Series 38.

injury had been done to the liver is highly probable from the appearance above-described; but it is quite clear that this could not have been a deep or extensive laceration; nor did any trace remain of blood on the surface of the peritoneum, which, considering the fresh appearance of the clot in the kidney we should have expected to find. The case was, at the time, regarded as a signal example of the virtue of Gallic acid, but this conclusion is rendered doubtful by the above facts, which seem to prove that the effusion into the peritoneum, was rather that of inflammation than of hæmorrhage.

Mr. T. HOLMES, 17th of January, 1860.

8. *Case of moveable kidney.*

Upon opening the abdomen of J. C., æt. 34, it was at once noticed that the left kidney was situated lower down and nearer the middle line than usual; the descending colon was also nearer the middle line, and formed no sigmoid flexure in the left iliac fossa, but passed across the last lumbar vertebra, and entered the pelvis on the right side of the sacrum.

Upon slightly pressing the kidney, it slipped at once into its normal situation, and upon further examination it was found to be moveable to a most remarkable extent. By changing the position of the body, or by gentle manipulation, the kidney was caused to pass according to circumstances, quite up under cover of the ribs, across on to the front and slightly to the *right* side of the bodies of the vertebræ, or down into the iliac fossa. This mobility appeared to depend principally upon the unusual disposition of the peritoneum, which was associated with the misplacement of the colon. Instead of passing over the anterior surface of the kidney, and then forming the descending mesocolon, the peritoneum from the side of the spinal column only just touched the lower part of the inner border of the kidney, and then having been reflected over the descending colon, touched the lower part of the outer border of the kidney, as it passed on to line the side of the abdominal cavity; and again, the "lesser sac of the peritoneum" extended behind the spleen, and as low down as the upper border of the kidney. Thus, the kidney, instead of being fixed in its position by a single layer of peritoneum over its anterior surface, was placed, as it were, in the middle of three diverging layers, none of which could afford much support.

Before any of the viscera were injured or removed the trunk of the subject was exhibited to the Society:—and careful diagrams were made of the disposition of the viscera, and of the various positions which the kidney could be made to assume by mere motion of the body.

Upon dissection, it was found that there was little or no fat in the lumbar region, and that the kidney was, consequently, only surrounded by very loose cellular tissue. To this circumstance, doubtless, must be attributed, in great part, the remarkably prominent appearance of the kidney when the abdomen was laid open. The renal artery was somewhat longer and thinner than usual. The kidney itself was rather small, but of perfectly healthy structure. No other anatomical peculiarities than those already described were met with. No history of the recognition of the mobility of the kidney during life could be obtained.

Mr. DURHAM, 17th of January, 1860.

9. *Misplaced kidney (felt during life, and supposed to be an abdominal tumour of doubtful character).*

W. S., a gentleman, æt. 45, having become considerably emaciated in consequence of an attack of fever, perceived for the first time, a tumour in his hypogastric region, slightly on the left side of the promontory of the sacrum. The tumour was oval in form, and presented no distinct elevations nor depressions. Manipulation gave rise to very disagreeable sensations but not to acute pain.

Four years afterwards the patient died of pulmonary disease. He had never recovered the good health he had enjoyed previous to his attack of fever.

At the request of Mr. —, Mr. Durham made a post-mortem examination of the body. The left kidney was found situated over the sacro-iliac synchondrosis, and extending on to the promontory of the sacrus. The artery came from the aorta just above its bifurcation; —the ureter passed from the lower part of the organ—there was, therefore, no hilus. The corresponding supra-renal capsule was large, flat, and in its normal position.

Mr. DURHAM, 17th of January, 1860.

10. *Three calculi removed from the bladder of a man, between sixty and seventy years of age, on three separate occasions, during a period of seventeen months, by the operation of lithotomy.*

In the month of June, 1858, Mr. Price was consulted by a patient, æt. 63, concerning irritation and pain attending the act of micturition, and giving rise to more or less frequent distress, so that he was compelled to desist from his occupation, and keep to his house.

The patient had long suffered from the symptoms under which he then laboured, and had undergone the usual treatment with no relief for chronic cystitis. The urine frequently passed with excessive pain, was small in quantity, thick, ropy, and highly ammoniacal. The sym-

ptoms indicated stone, but as the introduction of instruments had frequently been resorted to, it became doubtful, whether they were really not due to chronic disease of the bladder. A sound was, however, passed, and a small stone lying at the neck of the bladder detected. Lithotomy was advised; the patient submitted, and the operation was performed on the 7th of June, 1858. The man was about in three weeks, and the old pain having in a great measure left him, he was soon enabled to resume his employment. In the course of a few months the old symptoms began to recur. The urine became scanty, frequent, ropy, and ammoniacal. A considerable quantity of a muco-purulent substance would occasionally pass, after which greater relief would be experienced. At the expiration of a year, the pain and other symptoms became as far advanced as ever, and the patient who had fallen into other hands, again sought advice from Mr. Price. The introduction of a sound readily detected a small calculus. The irritation of the canal and bladder was extreme. Lithotomy was again recommended, and on the 25th of July, 1859, a stone, in size and shape similar to the last, removed. The bladder was entered by cutting through the old cicatrix, and the stone with no difficulty extracted. The patient was this time cut in the Great Northern Hospital, which Institution he left in three weeks benefited in health, although not absolutely free from his old pain.

In the course of three months, he came to Mr. Price, with his unfortunate symptoms again increasing in severity. Now, as after the former occasions, the greatest attention was paid to his daily mode of life, and especially to his diet. Medicinal means were also resorted to. His bladder was daily washed out with nitro-hydrochloric acid with good effect, and morphia in combination with buchu, pareira brava, hyoseyamus, &c., &c., given by the mouth.

The now almost constant pain was further combatted by opium injections.

At the commencement of January, 1860, his sufferings had attained to the worse degree, so that it became advisable to sound the bladder. A calculus close to the neck of the viscus was touched by a small curved sound; and as a crushing operation was out of the question, on account of the extreme irritability of the canal, and disease of the bladder, lithotomy was for the third time advised, and performed on the 12th of January, 1860, and a stone closely analogous, both in shape, size, and composition to the former ones, removed.

In performing the operation, the knife was carried through the cicatrix of the former wounds. The tissues about the wound seemed more condensed than usual. The prostate offered considerable opposition to the passage of the forefinger; but in other respects the operation was unaccompanied with any difficulty. The man, at the end of three

weeks, left the Hospital with the wound completely healed; but the bladder irritation still continued, although much mitigated.

Remarks.—The history connected with the specimens is of much interest, as illustrating the following features:—

1. That the patient from whom the calculi had been taken, was operated on three times during the short space of eighteen months, and that the lateral operation was performed on each occasion, the same line of incisions being practised.

2. The case shows that calculi of a certain kind may be produced in the bladder at a very rapid rate, the rapidity of formation depending on the nature of the concretion.

3. That in resorting to successive operative measures, it was deemed advisable to re-open the bladder through the original track that had been left after the first operation, and that, by so doing no important difficulty was met with; but the wound seemed to close with less irritation and greater rapidity. Mr. PRICE, 21st of February, 1860.

[Since exhibiting these specimens, the patient has very greatly improved in health, is now able to hold his water for a longer time, and experiences less pain about the neck of the bladder and prostate gland.—P. C. P., June, 1860.]

11. *Kidneys taken from a woman who had not secreted any urine for twelve days, during which period the usual symptoms of urea-poisoning were not exhibited.*

On the 10th of February last, the patient eat a hearty tea with fried sprats, being then as well as usual; during the evening she was seized with severe vomiting, and some pain in the back and body which continued all night. At six o'clock on the morning of the 11th, she passed water and a very small calculus—not much larger than a pin's-head; after this no more water was passed. The vomiting continued, and the following day, the 12th, she was prescribed for without my seeing her; such remedies were given as had on former occasions relieved her when passing renal calculi, of which she had had during the last eighteen months two or three attacks, when calculi of considerable size had been voided.

On the morning of the 13th, I saw her, when the vomiting of grass-green biliary matter had continued incessantly. She was free from pain, except that caused by the intense acidity of the ejected matter. There was no tenderness or fulness of either back or body. The pulse was natural, and with the exception of no urine having been passed, there

was an entire absence of symptoms. The catheter introduced, showed the bladder to be empty and firmly contracted. The bowels were constipated.

Calomel with opium and alkaline purgatives were administered, with frictions of croton-oil to the back, and continued without any effect for three days. A large blister was then applied over the loins. It induced a copious discharge of serum having a decidedly urinous smell. As the bowels were obstinate, elaterium, which on a former occasion had been most beneficial to her, was ordered. Several doses had to be given before it acted, when the bowels were copiously relieved, and kept well acted upon for four days. As the vomiting continued incessantly, the elaterium was omitted, and the tincture of sesquichloride of iron and tincture of lythe tried, at the suggestion of my friend, Dr. Chadwick, who now saw the case with me. As not any good resulted from this, and the sickness was made even worse, creosote was given in drop doses, with carbonate of potass, and turpentine enemata used instead, by which the sickness was to some extent allayed, but no other effect produced. On the sixth day, a slight subsultus of the tendons of the wrist was noticed, and afterwards, there was for three or four days, a decided muscular jerking of the shoulders and arms, which, however, subsided two or three days before death, and was nowhere perceived but in the upper extremities. About the same time she became dull and indisposed to move, as she said from the sickness; she was never lethargic. She slept quietly at times, but on the whole was wakeful. On the tenth day another blister was applied to the back, the serum from which was caught upon a cloth: not only had it a strong urinous smell, but crystals of nitrate of urea were obtained from it by my friend, Mr. Reynolds, whose report showing the processes adopted, I append. It was her catemenial period, the flow was in all respects natural.

She got gradually weaker, and died on the afternoon of the 23rd. When I called to see her, I found her dying, but so sensible that she rationally answered me a question not one minute before she ceased to breathe.

During the illness, on two occasions, she fancied she could pass water, but none came, and the repeated introduction of the catheter always showed the bladder to be firmly contracted and quite empty, except on one occasion, the night before she died, when two drops of fluid were obtained, having the colour, but not the odour of urine. A cloth was applied to the vagina when she had a motion, but it was never wetted, and the evacuations were carefully examined to see if any urine could have passed. Neither these, the skin, nor the breath ever had an urinous smell.

She was during the whole time perfectly sensible, the pupils were neither contracted nor dilated, and were obedient to light, the pulse was not above 80. Indeed, with the exception of the suppression of urine, thirst and vomiting, she had hardly a symptom of ailment. Whatever she took was shortly, often instantly, rejected. She lived twelve days after the secretion of urine had been totally suspended.

Post-mortem examination, forty-eight hours after death.—Though the weather was cold, the body was still quite warm. There was a large amount of oily fat both without and within the abdomen; the bladder was most firmly contracted without a drop of fluid in it, indeed it was almost dry and free from mucus. All the abdominal organs with the exception of the kidneys were healthy; these were embedded in a large quantity of hard, dense fat, and both were larger and softer than natural, allowing the fibrous covering to be readily stripped off. Within the pelvis of the right kidney was felt a large calculus, and on the upper part of its convex edge was a deep depression, like an old cicatrix. The pelvis of the left kidney contained several calculi, some of them small like sand, the calices were much enlarged; the distinction between the medullary and cortical portions was hardly to be detected. Under the microscope scarcely a vestige of the normal urinary tubes could be found, but a mass of epithelial scales, and an enormous quantity of granules, a few broken urinary tubes, most of them without scales, were present; hardly a trace of Malpighian bodies could be seen.

The heart was large, fatty, and rather soft, with the mitral valve thickened and much contracted; the tricuspid valve was healthy.

History.—I had known this woman for many years; she was not a healthy person; she had formerly had disease of the bones of the right wrist, and the heart had for some time been involved. Her father, mother, and one, if not more, sisters, died of diseased hearts, and a brother has it affected.

She married when thirty years old, and was thirty-three at the time of her death. Eighteen months before this she was delivered of a child, after a long, hard labour. For many weeks previously the legs were much swollen, and the breathing so much affected that she could not lie down in bed, for which no advice was sought. I saw her two days after her confinement, when I found the lower extremities enormously swollen, and effusion in the chest. She continued most dangerously ill for weeks, unable to walk or lie, passing only a few ounces of thick puddle-like urine in the twenty-four hours. Nothing appeared of much service until elaterium was freely given; it was continued for some weeks with so much benefit that she became as well as she ever had been, attended to her household duties, grew quite

fat, and had no illness afterwards, except a sharp attack of periostitis of the tibia, which passed off without suppuration, and, as before said, the passing of renal calculi two or three times, when she was not ill for more than two or three days.

MR. NUNNELEY, 20th of March, 1860.

As it may be of some interest to know the process employed for the detection of the urea, I append the report of Mr. Reynolds, who was kind enough to make the analysis.

Chemical report on the above case.—The results of the experiments made upon the serous fluid with which the cloth was saturated were as follows:—

The cloth was laid in distilled water overnight, and then squeezed; a little acetic acid added, and the fluid evaporated on a water bath. The albumen had now separated, and the residue was treated with cold alcohol, and the filtered and filtrate evaporated rapidly, for the chloride of sodium to crystallize out; and still farther, to ensure its absence, the solution in alcohol was repeated.

The whole product now occupied but the space of a few drops; when nitric acid was added to a portion of it, a mass of nacreous crystals instantly formed.

When a drop was treated with nitric acid under the microscope, abundance of crystals, having the form of hexagonal plates, were noticed.

The assumed nitrate of urea, when heated to decomposition, deflagrated in the same manner as some of the pure salt tried against it. The alcoholic solution yielded crystals with oxalic acid also; but this test is more liable to error.

I feel no doubt of the presence of urea in the serum from the above examination, though the quantity submitted is insufficient for very striking results.

Lehmann is the authority I have consulted (Vol. i., p. 159 *et seq.*). It appears that Marchand added one grain of urea to two hundred of serum, and could only recover one-fifth of the quantity, the decomposition by associated organic matters being very speedy.

It appears, therefore, that large quantities of blood must be taken for experiment.

MR. REYNOLDS, 20th of March, 1860.

12. *Cystic disease of the kidney.*

H. L. F., æt. 50, came under my care in the early part of the year 1853, having then suffered for some time from symptoms which must previously have been more or less obscure, as the case was thought at

one time to be stone, then abscess in the prostate, then kidney disease; the latter opinion was confirmed by myself from microscopical examination of the urine; and from notes I then made, I find he was passing a large quantity of muco-purulent matter, with some blood-corpuscles, and uric acid; part of the urine, upon the application of heat, solidified. The symptoms more particularly complained of were incessant pain at the orifice of the urethra, and a continual desire to pass a diminished quantity of pale, turbid urine, which deposited a white sediment on standing. This was accompanied by pain through the loins, but not at that time of a very distressing character, and no swelling whatever could be detected. These symptoms were not at all of such a severe nature as to compel the patient to relinquish his professional engagement at the theatre; and his general health, in most particulars, remained tolerably good; he lived carefully, drank very little, and kept good hours. He looked much younger than he really was. His father suffered greatly from gout before he died, and he thought his own illness might arise from a form of the same disease developing itself; but as he had been entirely free from all symptoms of either rheumatism or gout, I could not see what this could have to do with his present malady. This constant and depressing pain induced him to consult many eminent members of the profession, among others, the late Dr. Golding Bird, who pronounced the disease to be *cattarrh of the bladder*, and prescribed buchu, pareira-brava, with other remedies, which only aggravated the symptoms, and were, consequently, soon abandoned. In turn he consulted the late Mr. Guthrie, who suspected stone, but, upon using the sound, detected none. Sir B. Brodie believed the disease to be chiefly seated in the prostate gland, but his remedies were of no avail, and were soon given up. His rest was at this time much disturbed by almost constant pain. I abandoned all medical treatment with the exception of palliatives, opiates, &c., and a daily use of the catheter; about a fluid drachm of pus was drawn off daily.

Under this treatment he improved, and in August, 1854, being desirous of trying change of air, he went to Margate, where he remained a week or two, and returned home, and on the 20th of September following, was laid up with gout in the right great-toe; this yielded to colchicum. Afterwards his health again improved, but only for a few months, when he was again attacked by gout in various situations, and he only had intervals of a few weeks' cessation from similar attacks, so that he became, as it is not inaptly said, "a martyr to gout," and this, superadded to the kidney disease, gradually weakened him; nevertheless, medicine always arrested his gout, except in his last fatal illness, which occurred December, 1859; his stomach, for the first time, rejected all nourishment; vomiting remained persistent for days, and

was only slightly abated by doses of chloroform and opium; subsequently, brandy and soda-water only were retained, and this went on for three days and nights preceding his death, on the 17th of January, 1860. A few hours before he died all sickness and pain vanished, and he thought himself once more about to recover.

He was seven years under my care; during that period I continued to use the catheter, and I believe that a quantity equal to one drachm of pus was drawn off each day; so that we may calculate that he passed in the seven years, at least four hundred and six ounces of solid matter, pus and albumen. A hernia which had existed on the right side of the scrotum for many years, added to the difficulties of his case. No bronzing of the skin was observed.

Post-mortem examination, thirty-six hours after death.—The body presented an emaciated appearance; a large knuckle of gut was found in the right scrotum, giving it a very large pendulous appearance. Intestines healthy, and distended with flatus; otherwise perfectly empty. Liver healthy, and lungs perfectly so.

Heart very pale, flabby, and bloodless, externally covered with fat. The left kidney small, and flabby, and its inferior extremity fragile, evidently in a state of degeneration. The medullary substance, infundibulum, and pelvis converted into fat. The whole organ pale and bloodless. In the cortical substance, a cystic cavity as large round as a fourpenny-piece.

The right kidney had become pushed up and displaced, and so altered, both in size and form, that I doubted for some time whether it was there at all, and whether I had not come upon a large lumbar abscess; especially when, in the difficulty of separating and cutting away a dense fibro-cellular tissue, I accidentally opened into what afterwards proved to be a cyst, and out poured an immense quantity of its whitish creamy-looking contents. Before I could detach it, I was obliged to remove the whole of the viscera, when I found the large kidney, presented to the Society, firmly adherent to the under concave surface of the diaphragm, as well as the lumbar fascia.

This enlarged kidney measured eight inches and a-half long by four inches and a-quarter wide. Although it had attained such dimensions, it retained, on the whole, the natural shape. But it was at once seen and felt to have lost all ordinary kidney-structure, and to have been converted into a mass of what appeared to be cysts, containing some doughy, lardaceous material. On removing the capsule, which was very much thickened by a good deal of adventitious fibrous tissue, this appearance was much more striking; the size and number and independence of the cysts were clearly seen, and the kidney had the look as if it had been tied by strings crossing it in different directions, producing bulging convexities

of different sizes, with deep fissures between them. On the whole, the capsule, though adherent in some parts, shelled off very freely and smoothly from the surface of the cysts, and was only adherent to the fissures between them. The walls of the cysts were in all the large ones so thick, as entirely to conceal their contents; in some parts they were conspicuously vascular, and in some were straightened by bands or trabeculæ of fibrous tissue, springing mostly from the fissures between them, interlacing and forming a coarse areolation on their surface. But in some parts of the kidney the surface was covered with innumerable small cysts, varying in size from a pin's-head to a French bean, so superficially placed, that their white and pale-buff contents were barely covered, and showed clearly, though imparting to the kidney an appearance not unlike the granulated surface of some biliary calculi. Near the fissure was a free opening of a large cavity, evidently that of a cyst of the same nature as the others, and as large, apparently, if fully distended, as the whole of the rest of the organ put together. It was partly filled, and its whole inner surface lined with a peculiar material, having a consistence of cream-cheese, very smooth, opaque, and of a pale buff-colour, a large quantity of it escaping when the cyst containing it was ruptured, in separating it from its attachments and removing it from the body. There were one or two small cysts bulging from the surface, with clear walls and contents, which, from their red colour, transparency, and strong refraction, looked like carbuncles when the light shone through them. On examining, microscopically, the soft, cheese-like material from the cysts, it was seen to consist mainly of amorphous granular matter, some of which might be the debris of old broken-up cells, but which appeared chiefly to resemble amorphous earthy matter—phosphate, and carbonate of lime. There were also numerous rhombic crystalline plates, single and in aggregation, which had all the appearance of cholestearine. Lastly, there was a great deal of free oil. The bladder was very much thickened and reduced in size, and the prostate smaller than usual in men of my patient's age, but otherwise healthy.

Mr. JABEZ HOGG, 3rd of April, 1860.

Minute examination of the above.—On cutting the kidney open, and dividing it into two equal portions by a longitudinal section, it was seen to be nothing but a membranous capsule, entirely filled with the same material as that which had escaped from the ruptured pouch; and the convexities of the surface were seen to represent, not independent cysts, but open cells, looking into, and freely communicating with, the general cavity, like the cells that excavate the walls of a frog's lung. Some of these open cells or pouches communicated with the general

cavity by small circular orifices, and contiguous cells thus opening, were seen also to communicate with one another.

The only difference in the character of the occupying matter was, that in some parts it was of the consistence of cream, in some of putty, evidently from inspissation; and in some parts the cream-colour that characterized it verged towards pink. About the fissure there was a material looking like soft-soap, but tough and firm. Under the microscope, it was seen to be partially disorganized fat, the cells being very large, and their fatty contents in great part supplanted by serum.

On squeezing and washing out the putty-like material, the number and extent of the communicating chambers was seen; and it was also seen, that though all the larger ones communicated with one another and the general cavity, the smaller ones did not, and their contents remained shut up in them. There did not, however, appear to be any part of the kidney consisting of true gland structure: the small cysts, which remained solid, and were not emptied by a general section of the organ, appeared to consist of nothing but the same membranous walls and the same contents. On cutting through some of the cyst walls, they had an almost calcareous hardness, so as to turn the edge of the instrument with which the section was made. Gritty masses, too, like little fragments of mortar, existed in the material filling the kidney.

There can be no doubt, from the smallest cysts being shut, the larger communicating imperfectly, and the largest forming one great cavity, that they all began as independent depositions of the matter by which they were filled, and that they communicated by extension.

The following is the result of a proximate analysis of the material filling the cysts, made by Mr. Juson, of Charing Cross Hospital:—

| | |
|--------------------------|--------|
| “ Moisture | 51.11 |
| Organic Matter | 23.18 |
| Mineral do. | 25.71 |
| | <hr/> |
| | 100.00 |

“The organic matter appears to consist of fatty substances, while the qualitative analysis of the mineral portion of the material shows that it is composed principally of phosphate of lime, a notable quantity of carbonate of lime (at all events in the *ash* obtained by incineration), chloride of sodium, and a trace of sulphate of soda.

“From the fact of no effervescence being produced on the addition of acids to the original substance, while the ash obtained from it by burning effervesced considerably when treated with acids, I think it probable that some of the lime originally existed as an organic salt, probably as a margarate or stearate.

“No uric acid could be detected.”

What was the nature of this curious morbid change? From the previous history of gout in the case, I was at first disposed to think that the material filling the kidney was urate of soda, which it very much resembled. The chemical analysis, however, showing that uric acid was not present, and that the base was lime and not soda, proved that this was not the case. Its microscopical and chemical analysis showed it very much to resemble, if not to be identical with, the material of tubercle; and I should be disposed to pronounce it scrofulous disease of the kidney. If that opinion is correct, it is an instance of what is so frequently seen,—the concurrence of gout (or rheumatism) and struma. The case is chiefly remarkable for the enormous quantity of the matter accumulated (which could not have been less than three or four pounds), for the completeness of the destruction of the kidney tissue, and for the freedom of the other kidney from any such change.

Dr. HYDE SALTER, 3rd of April, 1860.

13. *Villous growth of the bladder, passed during life.*

A delicate-looking woman, æt. 35, with an anxious expression, applied to Dr. Braxton Hicks for relief with the following symptoms:—For nearly two years she had experienced pain, and at times difficulty in micturition which had much increased during the last two months. The urine passed frequently, and in small quantities, at times the flow being interrupted and again returning. Occasionally, these attacks were associated with violent straining and the passage of blood. As the symptoms indicated the existence of stone, Dr. Hicks requested Mr. Bryant to examine her, and although much care was taken, and several examinations were made, no calculus or growths could be detected; the symptoms, however, were so marked, that some obstruction to the vesical orifice of the urethra was confidently predicted, a polypus being suspected. On the 14th of April, 1860, during micturition accompanied with some straining and the passage of blood, she passed the growth which was presented to the Society. It presented very much the appearance of the chorion, being flocculent, and when floated out, presented well-marked delicate villi. There could be no doubt of its nature, and that it was part of a villous growth situated near the vesical orifice of the urethra; such growths are not common, although many are on record, but that a portion should have been passed during life is a point of considerable interest.

Minute and microscopical examination of the growth above-mentioned, by Dr. Hicks, gave the following results:—

“The mass consisted of two portions—1. The central part, more

solid and dense. 2. The villous growths springing from the surface. (Plate IV., Fig. 1.)

“1. The villi were composed of branching tufts of capillary loops; each branch containing, in nearly every instance, the trunks of three blood-vessels, joined together by numerous capillaries, as is shown in Fig. 2. A very delicate membrane (probably the representative of the basement membrane) surrounded the network of capillaries; and a few delicate ill-defined cells existed in the spaces between them.

“The power which set in action this new growth, seemed principally concentrated on the formation of blood-vessels. Nothing could be more beautiful than to trace the whole process of blood-vessel formation in the various villi. These I have endeavoured to show in Figs. 3, 4, 5, 6, the first step being the projection from the end of a scarcely-formed villus, of a pyriform cell with a large nucleus (Fig. 3), whose diameter-cell was about $\frac{1}{1100}$ th of an inch, which subsequently gave off processes. (Fig. 4.) These afterwards joined two others of similar origin, as shown in Figs. 5 and 6. At a later stage, the formative cells became smaller, the connecting portions larger, till at length the nucleus was the only portion of the original cell remaining visible. Then the connecting portions began to be tubular, and after further growth, the threefold capillary loop had assumed its proper form and function.

“The nuclei could be observed in the walls of the largest and oldest vessel, now increased in number probably by division, whereby the growth of the vessel was secured.

“The diameter of the fully formed capillary was about $\frac{1}{700}$ th of an inch.

“On the base of some of the villi I found some columnar epithelium still attached.

“2. The central denser portion I found to consist wholly of an informal assemblage of cells, varying in all degrees from the globular, to the elongated spindle-shaped nucleated fibre (Fig. 7); some possessing two or three processes. All had very large nuclei, which were invariably single.

“The average diameter of the cells was about $\frac{1}{1100}$ th of an inch; that of the nuclei was $\frac{1}{2500}$ th, while their length was one diameter and a-half.

“*Remarks*—From the above description and drawing, it will be readily seen, that the activity of development of the villous portion, was principally concentrated on the vascular loops, and in that particular, it differs from those villous growths, described and figured by Mr. Sibley in the ‘Pathological Transactions,’ Vol. VII. p. 215, and Vol. VIII. p. 18; although in general external appearance they resemble each other.

“In Mr. Sibley’s case of villous colon, he found that the capillary network was formed in the villi, *after* the development of the other cell-growth had advanced very considerably, or was nearly completed; in

DESCRIPTION OF PLATE IV.

Figs. 1 to 7 illustrate the microscopic structure, in Mr. Bryant's case of Villous Growth of the Bladder, p. 154.

- Fig. 1. Portion of the mass, of the natural size, composed of rapidly-growing villi.
- Fig. 2. Magnified view of the end of one of the villi, showing three trunks of blood-vessels, communicating by capillaries, in the walls of which are seen the nuclei of the formative cells. Diameter of cells 1-780th of an inch.
- Fig. 3. Formative cell, elongating to form a capillary. Diameter about 1-1100th of an inch.
- Fig. 4. Formative cell more developed.
- Fig. 5. Apices of three newly-formed villi (*a a a*), giving off formative cells (*b b b*), which are connected by threads not yet formed into tubes.
- Fig. 6. The same in a more advanced stage.
- Fig. 7. Structure of the basis of the growth, composed wholly of cells, more or less tending to fibre-cells, with large single nuclei.
- Cells*—Average diameter, 1-1100th of an inch.
Length, from two to ten times the diameter.
- Nuclei*—Diameter, 1-2500th of an inch.
Length, one and a-half times the diameter.

Fig. 8 represents the worm-like blood-cast of the ureter, in Dr. Hyde Salter's case of Renal Hæmorrhage, p. 165.

Fig. 9 represents the microscopic elements in Dr. Bristowe's case of Alveolar Cancer of the Uterus, p. 179.

Fig 1



Fig 2



Fig 7

Fig 3



Fig 4

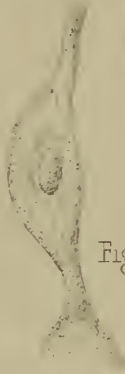


Fig 5

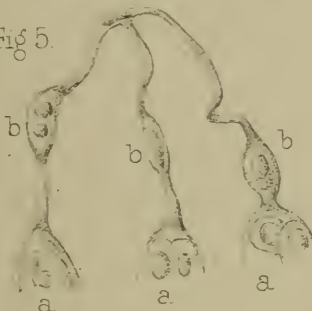
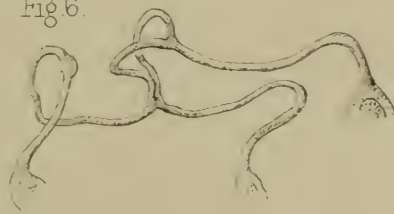


Fig 6



D^r Eicks del.

Fig 8



D^r Hyde Salter del.

Fig 9



D^r Bristowe del.

Tuffen West sc.

W West imp.

the present case, on the contrary, the formation of the vascular portion commenced *first*, the development of the other elements remaining subjective to it.

“It is well known, that there are many forms of villoid growths, some occurring where no true villi exist naturally, as into the walls of cysts, &c., and which have no structure in common with true villi; while others are merely villi in a state of superabundant growth. In endeavouring to determine the true nature of such a formation, it is important to ascertain whether the blood-vessels run through the interior of the growth, or pass up on the exterior.

“In comparing the present with Mr. Sibley’s cases, it appears, as is more or less the case in all compound structures, that when a true villus takes on an abnormal activity, whether after the natural, or the so-called malignant method, the unusual development of one of its elements may exceed those of the others, or be exclusively concentrated upon it. Perhaps the present case may represent the almost exclusive development of the vascular element, whilst cauliflower excrescence of the os uteri, exhibits that of the other element.”—J. B. H.

Mr. BRYANT, 17th of April, 1860.

14. *Large hydatid cyst at the base of the bladder. Cancer of the pylorus.*

W. A., æt. 52, was admitted into Guy’s Hospital under Dr. Habershon’s care, the 28th of March, 1860. He had enjoyed good health till eight months previously, when loss of appetite, and vomiting after food came on; the rejection of food took place either at once or after longer intervals; the bowels were constipated. Emaciation had gradually become extreme, and when brought to Guy’s Hospital, it was thought that he would scarcely reach the ward; he rallied, however, and survived for three weeks. Vomiting did not recur till two days before death.

There was no physical or general signs of disease of the chest. The abdomen was much contracted, and an ill-defined hardness could be felt in the region of the pylorus. There appeared to be no doubt that he suffered from chronic disease of the stomach; and, as was afterwards confirmed, of a cancerous character. He had not suffered from hæmatemesis, neither did he complain of any pain at the stomach. In the hypogastric region was a tumour reaching as high as the umbilicus, and precisely resembling in form a distended urinary bladder. It was dull on percussion, rounded in form, and fluctuation was distinct; it was also readily felt in the rectum. The patient stated that he had never experienced any difficulty in micturition, nor had he suffered any pain in the lower part of the abdomen. A catheter was passed without

difficulty, except that arising from position (the patient remaining on his side), and a small quantity of healthy urine was drawn off, but without at all affecting the size of the cyst. The possibility of cancerous disease, secondary cyst from the bladder, or hydatid disease were mentioned, but the character of the pelvic disease could not be satisfactorily ascertained during life.

Post-mortem examination.—The thoracic viscera were found in a healthy state. The peritoneum was healthy. The stomach was slightly distended; and, on drawing it aside, a marked constriction was observed at the pylorus, and several of the glands at the lesser omentum, and near the pancreas were enlarged from the infiltration of cancerous product into them. A firm growth was found to exist at the pylorus, extending into the stomach for about one inch and a-half to two inches, where it terminated by a rounded, raised, and vascular border; the valve was surrounded by the growth, and slightly ulcerated, but the little finger could be passed through it. The growth had a similar vascular and raised edge on the duodenal aspect, but was less prominent; it was of a yellowish-grey colour, moderately firm, containing succulent fluid, and composed of cells with large nuclei, free nuclei, elongated cells, &c., and evidently of a form usually considered to be cancerous. The liver, kidneys, and spleen were healthy; so also the intestine. The ureters were normal, excepting that the right one was slightly spread out on the walls of the pelvic cyst. This cyst occupied the usual position of the bladder, which was flaccid, and situated on its left side. The peritoneum was everywhere smooth and healthy; the mucous membrane of the bladder, the prostate, vesiculæ seminales, and vasa deferentia were all healthy. To the right of the bladder, in the median line, and apparently developed in the loose cellular tissue of the walls of the bladder was a large hydatid cyst, containing nearly three pints of cysts, varying in size from a line to an inch in diameter. At the base of the cyst was a firm yellowish-grey substance, containing plates of cholestearine. Numerous hooklets of the echinococcus were observed within, and the cyst had apparently commenced in the neighbourhood of the prostate.

Dr. HABERSHON, 1st of May, 1860.

SUBSECTION II.—GENITAL ORGANS, MALE.

15. *Stricture of urethra, and extensive disease of the bladder and prostate.*

The patient was aged 73. Fifty-two years ago he suffered an injury to the perineum, from a fall on board ship, and stricture of the urethra, with perineal abscess and fistulæ, followed.

He was under observation only forty-eight hours, and during that time the urine flowed mostly by the fistulæ, very little coming by the natural passage.

On *post-mortem examination*, the bladder was found shrunk, thickened, fasciculated and sacculated, the mucous membrane showing all the signs of long-standing chronic inflammation.

The principal sacs were one on the posterior wall, about its middle, and one on either side, near the opening of each ureter.

The ureters were dilated and thickened, especially the left, which was about three-quarters of an inch in diameter: the corresponding kidney was almost entirely destroyed by abscess, and contained much very foetid pus.

The lateral lobes of the prostate were both hollowed out by abscesses.

The urethra was dilated at its membranous portion, immediately anterior to which it was strictured to the extent of an inch, only allowing a small probe to pass, and surrounded by much hard, thickened tissue. Large and ramifying abscesses surrounded this portion of the canal, communicating with it and with the surface by several openings.

Mr. JOHN C. MESSER, 20th of December, 1859.

16. *Undeveloped sexual organs of a male adult.*

A tall man, æt. 46, of feminine appearance, died of paralysis, in the Hackney Union; and I am indebted to Mr. Novell, of Clapton, for the opportunity of making an examination of the body. It measured six feet one inch in height. The body was fat and rounded, the shoulders were somewhat narrow, and the pelvis was remarkably wide for a male. The skin of the face was smooth, without any appearance of beard or whiskers. The hair was deficient generally over the body, a few only being scattered over the pubes. The external organs of generation, the penis, and scrotum were extremely small—strikingly so in a man of so large a frame. They were of about the size usually seen in a child four or five years of age. The testicles could be felt in the scrotum, and seemed no larger than haricot-beans. The abdomen was covered with a tolerably thick layer of fat. Each testicle was enclosed in its vaginal sac. The fold of membrane so commonly found attached to its upper part, close to the head of the epididymis, was red, and proportionally of larger size, as in very young subjects. The left testicle was somewhat larger than the right, and measured half-an-inch in its longest diameter. There were no adhesions, and no marks of disease. When incised, the glandular structure seemed healthy, and exactly in the usual condition observed in an undeveloped testicle in early life. The tubuli could not be separated and drawn out. No

spermatozoa could be detected in the fluid pressed out of it. No deficiency of intellect was noticed during life.

Mr. CURLING, 3rd of January, 1860.

17. *Specimen of spurious hermaphroditism.*

This specimen having been alluded to as the only known instance of true hermaphroditism, Mr. Spencer Wells brought it before the Society from the Museum of the Grosvenor Place School, and proposed that a Committee should be appointed to obtain permission to examine it. Dr. Wilks, Mr. Curling, and Mr. Spencer Wells, were nominated as the Committee. They obtained permission from the executors of the late Mr. Pilcher to whom the specimen belonged, and furnished the following report. The only reliable information they could obtain as to the habits and peculiarities of the person during life was from Dr. Barron, who said he had heard Mr. Pilcher speak of his patient distinctly as an *old lady*, and although he could say nothing positively as to the development of the mammæ, yet he had no doubt of the sexual organs being the chief peculiarity, or suspicion as to sex would have been excited earlier—she had passed through life as a female, and no doubt presented the chief peculiarities of the sex.

Report on the above specimen.—The external organs revealed nothing as to the true sex, all that was seen being a small penis or enlarged clitoris, and on each side a projection corresponding to the female labia. The latter appeared to be composed of dense cellular tissue, and contained no organs within them; between was a sulcus, but no canal. At their junction above was an organ consisting of a glans and prepuce, but not perforated, the canal of the urethra opening below, as in hypospadias of man.

On examining the parts immediately behind, no bodies corresponding to testes could be discovered, but only the roots of the organ just named, and which had been truncated. These consisted clearly of corpora cavernosa and corpus spongiosum; the latter being cut through the original mode of termination could not be made out, but the former appeared to divide into two crura, just as the cavernous body does naturally; the attachment of these was also in like manner cut off.

The external opening (below the glans) led backwards by a long canal into the bladder; and this urethra was about two inches and a-half long. The bladder was of moderate size, having some of its muscular trabeculæ somewhat hypertrophied. At the neck was a slight eminence as seen in the male organ, surrounding the commencement of the urethra, and corresponding in shape and general appearance to the

prostate, but scarcely more than half the usual size of the adult organ. A section of it showed its composition to be a tough fibrous tissue. The urethra appeared to be of ordinary dimensions, but it had been occupied by a bougie which had stretched it, and injured its surface, and thus it could not with certainty be said that the present corresponded with the original appearance. No sinus *pecularis* or *verumontanum* existed, and no follicles corresponding to the prostatic could be seen; nor on section of the prostate, near the mucous membrane, were any ducts visible, neither any secretion or concretions resembling what are often seen in the perfect organ. Apart from these essential peculiarities, the general conformation of the bladder, with prostate and urethra, resembled closely the same parts in the male. This was especially seen in the raised border of the prostate at the neck of the bladder at that part which is sometimes developed into the so-called third lobe.

There was no trace of *vesiculæ seminales* nor *vas deferens*, indeed, as the interior of the bladder resembled a male organ, so the external resembled a female; for coming off from the fundus of the bladder was a pouch of peritoneum, which was again reflected up on a tolerably well-formed *uterus*.

The uterus, when opened, displayed the well-marked surface of the cervix, which expanded above into the body; the whole organ was small, and the walls very thin, being scarcely thicker than those of the bladder. The cervix did not end in a rounded manner below, to form an os, but gradually passed into a small membranous canal, which, being carried along behind the prostate, terminated in the urethra, just below this organ. This opening in the urethra was large, and evidently artificial; but whether there had been any communication in the living state, or whether the vaginal canal had terminated in a cul-de-sac, it is difficult to say.

On the left side of the uterus was a membrane corresponding to the broad ligament, and in this was a small ovary,—the latter being not more than half the adult size. A section displayed Graafian vesicles, and thus proved the true nature of the organ.

Within the uterus there was a small opening which apparently led into a Fallopian tube, but no corresponding structure could be discovered externally. There was no ovary on the other side.

Remarks.—It will be seen that this interesting specimen exhibited some of the peculiarities of both sexes; the uterus and ovary, and the absence of true male organs, showing clearly its feminine character. On the other hand, the bladder, prostate, and prolonged urethra, with the absence of the vagina, caused a strong resemblance to the male. As, however, the latter are not essential, it is evident that the female

characters predominate, and that the case was one of imperfect female development. It is interesting, however, to observe, that the organs do not exhibit simply an arrest of growth, but that the deviation from the normal standard has taken place in the direction towards the male sex; thus, not merely is there a want of vagina, a small uterus, and an imperfectly-developed single ovary, but the condition of the clitoris, the long urethra, and the prostate, approximate in character to the male. The slight development of the female organs prevented, probably, any characteristic manifestations of the sex, and thus the subject of this interesting malformation might rather be regarded as of the neuter gender. The only question which could arise as to the duality of the sex would be in reference to the co-existence of a prostate and uterus; whether, indeed, if the vagina correspond to the sinus pocularis in the male, the prostate should not also be carried back to form the uterus; and thus, whether the prostate and uterus existing in the same subject do not denote a double sexual condition. As, however, this is doubtful, and no other part of the genital apparatus is repeated, it may be regarded as unimportant.

Mr. T. B. CURLING.

Dr. SAMUEL WILKS.

Mr. T. SPENCER WELLS, 17th of January, 1860.

18. *Seminal fluid from a gentleman aged 24, both of whose testicles remain in the belly.*

There is no sign of the left testicle, but at the upper extremity of the right inguinal canal there is a slight fulness produced by coughing, and an indistinct nodule seems to be thrust forward; but whether this is the testicle cannot be determined.

The following particulars may be added, viz., That the patient masturbated for several years when a lad, and that he had sexual connection for the first and last time when twenty-two years of age.

He has sexual desires, and has frequent nocturnal emissions, accompanied by erections. Four examinations of the seminal fluid under the microscope, at different times, within a period of three weeks, have failed to detect spermatozoa.

Mr. PARTRIDGE, 17th of January, 1860.

19. *Hæmatocele of the right testis.*

This was removed from a man, æt. 34, who was admitted into Guy's Hospital upon the 10th of January, 1860, under the care of Mr. Poland.

He was a cachectic-looking engineer, who had drunk freely. From childhood his right testis had been much larger than natural, although it had never caused him any inconvenience till the last two months; at this period, when the swelling was about the size of a large egg, it suddenly began to enlarge; it was tapped, and about five ounces of a thick chocolate-fluid drawn off, somewhat diminishing the size of the growth; this soon re-collected, and, when admitted, the testicle was about as large as a cocoa-nut. The scrotum became inflamed and very painful.

Upon the 17th of January, chloroform having been given, an incision was made into what was considered to be the body of the growth, and, as it presented a solid character, it was thought right to examine the organ. The tumour was firmly adherent to the scrotum from inflammatory effusion, and upon a free section of the tumour being subsequently made, it was clear that the original enlargement was due to an old hydrocele, which had become a hæmatocele. The walls were much thickened, being almost cartilaginous. The epididymis had been evidently inflamed, as it was infiltrated with purulent deposit, and was firmly adherent to the scrotum, the cellular tissue of which was also filled with old and organized inflammatory effusion.

The man subsequently did well.

MR. THOMAS BRYANT, 17th of January, 1860.

20. *Tumour of the testicle from a young child.*

Mr. Holmes exhibited a testicle removed, a few days previously, by Mr. Athol Johnson, at the Hospital for Sick Children, from a boy æt. 5.

The history was as follows:—He was admitted on the 16th of December, 1859, from the country. The affected testicle was the left one. The right testicle had not descended, and there was no trace of it in the spermatic canal. He had been hurt, some time in September, by having the testicle violently pinched. He suffered great pain at the time, and the parts were, to use his mother's words, "black and swollen." Under his parents' treatment he got well, but was, unfortunately, again subjected to the same violence. The testicle now enlarged and became painful, and the same remedies which had been used before now only succeeded in relieving the pain. In October he was placed under medical care. The testicle was then much enlarged, and slightly tender. Iodine was used externally, and iodide of potassium internally; but the external application caused so much pain that it was discontinued, and mercurial ointment applied. The testicle was afterwards strapped, and under this treatment it was thought at first to be slowly diminishing in size; but as this seemed afterwards doubt-

ful, he was sent to London. At this time the tumour was of large size, occupying the whole scrotum, and extending nearly up to the ring. The skin was quite free from disease. The cord above seemed healthy. The swelling was firm, uniform, opaque, and not at all tender. At its front part it was divided by a groove running across it, which was joined by another passing downwards. It was punctured with a needle, and bled freely, but contained no fluid.

He remained in the Hospital for some time, on account of a rather acute attack of pleurisy, for which no cause was discovered. This weakened him very much. On his recovering from it, an attempt was made to bring him under the influence of a mild course of the liquor hydrarg. bichlorid. and mercurial ointment was applied to the tumour. The latter, however, increased in size so rapidly, and had come so near to the external abdominal ring, that the operation seemed inevitable, and was accordingly performed on the 4th of February. The cord, where it was divided, seemed healthy. The child recovered favourably from the operation, but his convalescence was retarded by a severe cold and influenza.

On making a section of the tumour, it was seen to be of a uniform white colour, and firm consistence. Its section presented numerous bands of white fibrous tissue, dividing it into lobules, or spaces, filled with a homogeneous pearly-white matter. No traces of the original tissue of the testicle appeared to the naked eye. The tunica vaginalis was similarly affected, and was, in one part, more than a quarter of an inch in thickness, causing a corresponding depression on the surface of the principal tumour, and hence giving rise to the groove above-mentioned.* On *microscopical examination* of the tumour, the bands traversing it were found to consist of ordinary white fibres, and the intervening substance principally of small nuclear bodies, scattered among which were a few fibres, and a very small number of fibre-cells. At one part, however, towards the lower and superficial portion of the tumour, a number of curious flattened bodies were found (which are described in the report appended to this specimen), and which, at first sight, suggested the idea that they might have been derived from some transformation of the seminal tubules. This opinion, however, was negatived by their small size.

Should any facts come to the knowledge of the writer tending to prove the innocence or malignancy of this affection, they shall be communicated to the Society. Mr. T. HOLMES, 7th of February, 1860.

Report on the above specimen.—The great mass of the tumour con-

* The preparation is now in St. George's Hospital Museum, No. 1, Sub-series 2 k, Series 43.

sists of a close web of wavy interlacing fibres, the meshes of which are filled with cells and nuclei. The larger cells are circular and elliptical; they vary in diameter from $\frac{1}{4300}$ th of an inch to $\frac{1}{1435}$ th of an inch; the smaller ones are oat-shaped and caudate, or highly attenuated and drawn out into fibres. There are a few spots where the tumour has a soft brain-like consistence, and in these the circular cells and nuclei occur very abundantly, almost to the total exclusion of the fibrous element.

These characters lead us to assign the growth an intermediate position between the fibro-plastic and the recurrent fibroid tumours, to both of which it presents close affinities.

But in addition to the elements which we have described, the lower end of the tumour, towards the outer surface, contains elements of a very peculiar character. The thin juice obtained by scraping a cut surface at this part, presents great numbers of large scale-like objects of irregular breadth, varying from $\frac{1}{4300}$ th of an inch, to $\frac{1}{1325}$ th of an inch across, and many of which are as much as $\frac{1}{215}$ th of an inch long; some are nucleated, whilst in others no trace of a nucleus can be detected. Many are marked with delicate lines, suggestive of a longitudinal dehiscence into fibrillæ, and a few show traces of a transverse striation. By a careful study of these slices, these curious structures were ascertained to be fragments of large, flat band-like fibres of uneven breadth and great length. In recent specimens, the broader portions of these bands exhibited a distinct transverse striation, very closely simulating that of voluntary muscle, with which, however, their chemical reaction proved that they were not identical. Not having had an opportunity of examining the healthy testis in so young a child, we are unable positively to determine whether these objects are in any way derived from imperfectly developed glandular structures; but we incline to regard them as new formations.

Mr. HULKE and Mr. W. ADAMS, 21st of February, 1860.

21. *Peculiarities of the genital organs, and extraordinary development of the mammæ, in a male subject.*

Of the history of this subject nothing could be learnt, except that he was æt. 25, and "very like a girl in his manner."

The general appearance of the body was decidedly feminine. The face was free from hair, the skin soft and delicate, the limbs were rounded, the fingers tapering, the bones light and thin, and the pelvis wide.

The breasts were large and prominent. In size, appearance, and structure they resembled those of a young virgin. The penis was

remarkably short and small; the frænum of the glans very wide. Upon the upper part of each testis was a peculiar-looking oval body, rather larger than the testicle, and covered by a reflection of the tunica vaginalis. Upon cutting into these bodies, they were found to consist of a firm fibrous stroma, with a considerable quantity of fat. The epididymis was in each case perfectly distinct, but smaller than usual. The testicles were normal in structure, but small for the age of the subject. The cord was normal, except that the bodies described extended some short distance along it. The peritoneal sac was perfect, and there existed no evidence of any hernia. The other organs were natural.

MR. DURHAM, 20th of March, 1860.

22. *Blood-cast, probably from an ureter, mistaken for a worm.*

The case which furnished the worm-like body exhibited, was a case of obstinate and obscure hæmaturia, to which I was called by Mr. Wickham Barnes, of Islington. The patient was a mail-guard of the General Post-Office, æt. 53, who sent suddenly to Mr. Barnes, on the 14th of February, to pass a catheter for him, as he was suffering from stoppage of his urine, not from any stricture, but from the urethra being occluded with clotted blood. He then stated that he had been passing blood by the urethra, since the 8th of October, 1859,—more than four months,—but had not sought medical advice till within five weeks. The first occurrence of the bleeding was at Plymouth, without any warning or pain, quite suddenly, on a Tuesday; it did not occur again till the following Tuesday, and so for the two next Tuesdays. From that time, the intervals had been of shorter duration, and continued so since. He stated, moreover, that fourteen years ago, while sorting letters in a railway carriage, the train ran into some goods'-trucks, and the shock drove him against the table in the centre of the carriage, the edge of the table coming against his loins: he passed blood immediately afterwards with his urine, but did not lay by more than two or three days, during which time the blood continued to pass. About a year and a-half after the accident he had, as was supposed, inflammation of the kidneys, and again passed blood for seven days. He has had pains in the loins, and passage of blood occasionally from that time to the present.

When I was called to the patient, he had the look of a florid man blanched: there was colour in his cheeks, but the rest of his face, lips, and conjunctivæ, were white. He was passing so much blood in his urine, that at times a firm coagulum was formed in the chamber-pot. The curious part of his case was, that except the passage of the blood, he suffered from no symptom whatever; no functions were disordered,

there was no pain, and nothing to localize the hæmorrhage. The case looked, perhaps (in spite of the man's impression that the blow in the loins was the original cause of it), more like calculus in the kidney than anything else, except for the absence of the characteristic symptoms of that condition. There was, as I have said, no pain; there was no retraction of the testicle, no vomiting. There were also no bladder symptoms. Under these circumstances it seemed impossible to say where the blood came from,—whether from the bladder or from the kidney. A few days after I had seen him, Mr. Barnes sent me the worm-like thing (Plate IV., Fig. 8), which had been passed from the bladder in making water. It is six inches and two lines long, cylindrical, pointed at each extremity, and coiled up. The patient's son declared that he had seen it move just after it was voided, and it was sent to me as a veritable worm.

On examining it, however, I immediately came to the conclusion that it was a coagulum of fibrin, and saw at once, from its shape, that the only place in which such a mould could have been formed was the ureter; it, therefore, clearly showed that the blood came from above the ureter, that is, from the kidney. And thus the problem of the seat of the hæmorrhage was solved, although its actual cause remained as doubtful as ever.

On *microscopical examination*, my conclusion was confirmed. I found small particles, taken from any part of it, presented the same appearance, and consisted of fibres of coagulated fibrine entangling blood-globules. I was very particular to examine it thoroughly, in consequence of Dr. George Johnson having lately received some genuine strongyli passed from the kidney of a patient suffering from hæmaturia. I examined both extremities, and also portions from the surface and centre of the body, and could find nothing more than what I have described,—blood-globules and fibrine. The figure is an accurate representation of this body, of the size of nature.

Dr. HYDE SALTER, 3rd of April, 1860.

23. *Fibro-nucleated tumour of the testicle from a very young child.*

Mr. Holmes exhibited a testicle which he had removed from a little child, æt. 3, a patient of Mr. Faithorn, of Chesham.

The child was in good health, and his parents were healthy country-people. The left testicle had been observed to be enlarging for more than a year, and had latterly become so heavy, that it weighed down the child's body, and prevented him from walking comfortably. Its shape bore a great general resemblance to that of a hydrocele, but it was heavier, quite opaque, and extended almost up to the external

ring. On puncture, no fluid was found, but it bled pretty freely. Mr. Faithorn kept the child under observation for a few weeks, when, finding that the tumour was increasing rapidly, he recommended excision. The operation was performed on the 26th of March, and the child recovered without any bad symptom.

On making a section of the tumour, it was found to have a striking resemblance to that of Mr. A. Johnson's patient, above described (p. 161). The separation into lobules, however, was not so distinct, and the tumour contained much less fibrous tissue, and was altogether of a much lower organization than that specimen. The tunica vaginalis displayed the same affection as in the former case, and even to a greater extent, being half-an-inch in thickness in some places, and causing the same depression on the surface of the principal tumour as was remarked there.* On examination with the microscope, only a few fibres could be seen, and those not very perfectly formed; the greater part of the tumour being formed of a mass of small nuclei of similar size and appearance.

The preceding case was brought forward, as affording an apparently unequivocal instance of a rapidly-growing innocent tumour of the testicle. Very little is to be found in our authors on this head. Mr. Curling only gives a slight reference to a case of "fibrous transformation of the testis" in Cruveilhier's work (*Anatomie Pathologique*, Livr. V., Fig. 3); and most general works on surgery pass over this affection unnoticed. In the absence of microscopical details, it may be reasonably concluded that Cruveilhier's case was similar to that above described; but nothing is given there with reference to the final event of the disease. In this case, as in Mr. Johnson's, the patient will, most probably, be under observation for some years; and if any return of the disease should occur the fact shall be communicated to the Society.

Mr. T. HOLMES, 3rd of April, 1860.

24. *Fourteen calculi removed from the bladder of a man aged 72, by the operation of lithotomy; curious form of the larger stones.*

A few weeks since an elderly man was sent to Mr. Price by Dr. Chance, the subject of irritable bladder, from which he had suffered for nearly thirty years, but within the last two years the pain and inconvenience had so increased as to compel him to seek some definite relief. He had been previously treated under the impression that the urethral canal was strictured, but it readily admitted the passage of a moderate-sized instrument. On sounding the patient, a large stone was readily detected lying far back in the bladder.

* The preparation of the tumour is now in St. George's Hospital Museum, No. 2, Sub-series 2 k, Series 43.

The proceeding of lithotripsy being inappropriate to the case, the man was submitted to lithotomy, and the lateral operation was performed on the 5th of April. Fourteen calculi were removed, varying in size from a large irregular-shaped chestnut to that of a pea. The patient went on favourably for a few days, but ultimately sank from shock and exhaustion, some unhealthy condition of the bladder having arisen about the third day, accompanied with retention, and ammoniacal, dark-coloured urine. What is interesting in this case is the peculiar shape of the two larger calculi, which are well represented in the woodcut (Woodcut 8).

WOODCUT 8.



Represents the two largest calculi, of the natural size.

The larger of the two is bigger than a full-sized chestnut, and covered with from eight to ten spines, varying in shape and length. They stand out from the body of the stone—two especially, which are nearly half-an-inch in length—and are not mere subsequent depositions, but portions of the calculus.

On section, the nucleus was found to consist of oxalate of lime; but surrounding it were numerous layers of uric acid and urate of ammonia, with phosphatic salts. The formation of the spines was well and clearly seen; they were formed of waving lines of similar salts, and apparently contained no oxalates, nor was there any fresh or specific nucleus deposited, on which the peculiarity of shape might reasonably depend.

How can the unusual appearance of the calculus be accounted for? It is improbable that it obtained its special proportions from any vesical causes, as it had no fixed site in the bladder, and was certainly not contained in a pouch or sac. Is it not more likely that its retention for some time in the pelvis of the kidney might have allowed of its assuming the spiked form? But no distress, such as is occasioned by the

passage of a stone down the ureter, was ever experienced. It has been suggested that the peculiarity in form was dependent on crystallization of oxalates, but the section shows that no oxalates enter into its composition.

It is to be regretted that no post-mortem examination was allowed, as it would have been exceedingly interesting to have found the reason of this very unusual formation of vesical or kidney calculi.

The stone next in size to the largest one, also represented in the above woodcut, was assuming an analogous shape; and, doubtless, if the cause of its so doing were vesical, the other twelve, which had showed no signs of irregular formation, would likewise, in time, have taken on an identical condition.

A layer of phosphatic deposition covered over the whole of the larger stone, but the smaller ones were smooth and polished, as is usual with small kidney stones.

Mr. PRICE, 17th of April, 1860.

SUB-SECTION III.—GENITAL ORGANS, FEMALE.

25. *Tumour of the labia pudenda.*

The patient, a young woman, had come under Dr. Priestley's care in the out-patient room of the Samaritan Hospital. She was 27 years of age, unmarried, but had been delivered of a child some months before. She complained of swelling of the genitals, accompanied by discharge. Her general appearance was that of a stout and healthy young person. On examination, the integument of the mons veneris and labia majora, on both sides, was found covered with flattened, hard tubercles, and the right labium was so much hypertrophied as to form a round pendulous tumour, the size of an orange, with a broad base. The left labium was less enlarged. The nymphæ were also much hypertrophied, but had not been invaded by the tuberculous eruption. At this time there was a considerable muco-purulent discharge from the vagina. The patient stated she had never had syphilis, and neither sore-throat nor skin eruption, but the growths on the labia had begun before her pregnancy, and had been accompanied by much pruritus and irritation. After being received into the Hospital, the tumour on the right labium, together with the enlarged nymphæ, were removed by Mr. Spencer Wells. The *écraseur* was used in their removal. Not a drop of blood was lost in the removal of the larger growth, but some hæmorrhage occurred from the divided nymphæ. The tumour from the labia majora resembled one removed by Mr. Henry Thompson, from the same locality, which was of much larger size, and which is noticed in a previous

volume of the "Pathological Transactions." The tumour was composed of white fibro-cellular tissue, arranged in meshes, which contained a large quantity of serous fluid, and corresponded to the serocystic tumour of M. Boivin. Dr. Priestley considered it analogous to the so-called elephantiasis of the scrotum found in men.

Dr. PRIESTLEY, 1st of November, 1859.

26. *Twelve ovarian cysts and tumours removed by ovariectomy.*

1. This tumour had been preserved by the petrifying process of Professor Raddi. It had shrunk into a very small bulk. It weighed ten pounds when removed, and had been surrounded by upwards of forty pounds of ascitic fluid. The operation was performed on the 24th of May, 1859. A full report of the case is published in the *Medical Times and Gazette*, July 2nd, 1859. [The patient was seen in July, 1860, in robust health.]

2. This was a compound ovarian cyst which had been emptied, stuffed, and dried. It had been removed from a patient on the 24th of June, 1859, who recovered well. It consisted of one large cyst and a group of smaller cysts. The case is published in the *Medical Times and Gazette*, July 16th, 1859. [The patient was seen in June, 1860, in good health.]

3. This was a compound ovarian cyst removed on the 28th of October, 1859, from a lady, æt. 38. With its contents it had weighed fifty-three pounds. The patient went on perfectly well for a week, when tetanus came on, and she died the tenth day after operation, the third day of tetanus. This case is fully detailed in a paper on Cases of Tetanus, in which woorara was used, published in the *Proceedings of the Royal Medical and Chirurgical Society*.

4. This was a compound cyst peculiar from the extreme thickness of the walls of the principal cyst, which had contained nine pints of thick fluid. It had been removed from a single lady, æt. 37, on the 11th of October, 1859. It was closely connected to the right side of the uterus, and a firm band of adhesion to the cæcum had to be tied and divided before the clamp could be applied. Scarcely any blood was lost, and the patient went on well until the third day, when bilious vomiting and excessive distention of the intestines with gas became very urgent, and she died of exhaustion.

5. This was a fibrous and cystic tumour, consisting of a lower solid portion, simply fibrous in structure, and of a large cyst at the upper part which had contained several pints of fluid. The tumour weighed seven pounds and a-half. The patient died forty hours after operation.

A full report of this case is published in the *Medical Times and Gazette*, July 9th, 1859.

A portion of the abdominal wall of this patient, including the incision, was also exhibited to show how accurately the divided peritoneal edges of the wound unite when they are folded together by passing harelip pins through them. The pins are quite invisible on the peritoneal aspect, partly from the folding of the membrane, and partly from the effused lymph.

6. A multilocular ovarian cyst with masses of pseudo-colloïd substance in its walls removed from a married woman, æt. 47, on the 25th of July, 1859. The case is reported in the *Medical Times and Gazette*, August 13th, 1859. The patient entirely recovered, and remained in good health. The tumour was on the right side, but the left Fallopian tube, having been found diseased and adherent to the cyst was also removed.

7. A multilocular ovarian cyst which had been removed successfully from a married woman, æt. 41, on the 6th of October, 1859. The chief interest of this case, is the fact, that tetanus had appeared a fortnight after the operation, and the patient had recovered during the use of woorara. The details are fully reported and published in the *Proceedings of the Royal Medical and Chirurgical Society*. [The patient was in excellent health in July, 1860.]

8. A multilocular ovarian cyst removed successfully from an unmarried woman, æt. 29. The cyst and contents had weighed forty-five pounds. The case is reported in the *Medical Times and Gazette*, December 17th, 1859. The operation was performed on the 12th of October, 1859, and the patient completely recovered.

9. The Fallopian tube and remains of the peduncle of a multilocular ovarian cyst successfully removed from a young lady æt. 17. The cyst and contents weighed thirty-eight pounds, but the whole had not been preserved on account of the difficulty of showing the numerous aggregations of small cysts of which it was composed. The pedicle had been completely twisted round during the growth of the tumour; a point of some interest, as a case is recorded as occurring in New York where such a twisting of the pedicle had led to strangulation, obstruction of the veins, and gangrene of the cyst, followed by the death of the patient. The operation was performed on the 19th of November, 1859, and the patient was in robust health in July, 1860. [A full report of this case may be found in the *Medical Times and Gazette* of 25th of August, 1860.]

10. A semi-solid ovarian tumour, weighing eleven pounds and a-half, and two large cysts attached to it, which had contained forty-one pounds of fluid, forming together a very large tumour of the right

ovary, was removed on the 6th of December. The patient died twenty-three hours after the operation. The case is published in the *Medical Times and Gazette* of the 7th of December, 1859. A model of this tumour was also exhibited.

11. A multilocular ovarian cyst, removed from a single woman, æt. 23, on the 24th of January, 1860, at the Samaritan Hospital. The case is published in the *Medical Times and Gazette*, 25th February, 1860. The patient recovered perfectly, and has remained in good health.

12. A multilocular ovarian cyst, removed from a married lady, æt. 26, on the 6th of February, 1860, who died thirty hours after the operation. No post-mortem examination was permitted. The peduncle was so short that it had been left within the abdominal cavity. The symptoms were those of putrid absorption and low fever. The large cyst contained twenty-two pounds of fluid, and two groups of smaller cysts had been accurately moulded to the pelvic cavity. [This case is also reported in the *Medical Times and Gazette* of 25th of August, 1860.]

These specimens, and others described in the ninth and tenth volumes of the "Transactions," complete the series of cases in which Mr. Wells had performed ovariectomy up to the last meeting of the Society in the Session 1859-60. The general result of his experience in Hospital and private practice has been ten recoveries and seven deaths out of seventeen cases.

MR. SPENCER WELLS,

1st of November, 1859, and 3rd of January, 1860.

27. *Specimens showing the condition of the abdomen nine months after ovariectomy.*

In the tenth volume of the "Transactions," page 197, there is a description of a "Pseudo-colloid ovarian tumour, successfully removed." The operation was performed by Mr. Spencer Wells, on the 5th of November, 1858. The patient recovered well, left the Hospital a month after the operation, and remained so for several months, working in the fields, and appearing robust. But in July, 1859, she began to suffer from symptoms of chronic peritonitis, followed by those of obstructed intestine, and she died on the 26th of August.

One specimen, now exhibited, showed a portion of the abdominal wall containing the cicatrix, the peduncle of the removed ovarian tumour adhering to the cicatrix, and connecting the uterus closely with it; and the left ovary, in which disease had commenced and gone on to the formation of a compound cyst, about the size of a small orange.

Another specimen showed two strictures of the ileum, very near the cæcum, caused by deposits of cancerous matter between the peritoneum

and the muscular coat of the intestine. A similar deposit, in small nodules, had been strewed over nearly the whole of the peritoneum and its reflections. Mr. Jardine, of Capel, examined these nodules *microscopically*, and reported as follows:—"The masses are, when small, situated only between the peritoneum and the muscular coat of the intestines, and have a distinct limiting membrane of their own, nowhere appearing to be infiltrating growths. As they increase, the general tendency seems to be to push out the peritoneum, and to become pedunculated rather than to spread flatly under it. The bulk is composed of cells about the size of pus corpuscles, with large nuclei (in some cases almost filling up the cells), refracting light more strongly than the cells themselves. Most of the cells approach the globular form, but many are fusiform and elongated. No nucleoli exist, but some oil-globules in cells, and nuclei, and much free oil; a small amount of fibrous tissue runs throughout, but not with definite arrangement."

Mr. SPENCER WELLS, 1st of November, 1859.

28. *Virgin uterus (from a female, æt. 50 years), with a bony tumour attached to its fundus.*

The preparations exhibited were taken from a female æt. 50, who died suddenly on the 13th of November, 1859. The heart was found large and flabby, with hypertrophy of the ventricular walls, the cavities being filled with semi-coagulated blood; the valves were healthy. The lungs were enormously congested and emphysematous, the bronchial tubes being full of frothy mucus. The liver was enlarged, congested, and of a nutmeg appearance. The spleen, small intestines, and kidneys were much congested; the last were, in addition, granular. The longitudinal folds of the stomach were flaccid from congestion, and the organ contained an ounce and a-half of fluid resembling porter. The uterus was very small, weighing one ounce; it was two inches long from the cervix to the fundus, with a tumour attached to the upper part of its fundus the size of a Barcelona-nut, and of an ossified consistence. The interior of the uterus was full of glairy mucus, exuding from the os. The left ovary was atrophied to the size of a bean, whilst the right was normal in size, and contained a fibrous tumour embedded in its substance the size of a pea. The hymen was perfect, and the brain healthy, with the exception of congestion of the membranes, and some subarachnoid serous effusion.

This person had never borne any children. She was in bed with another woman, and had been dead for some hours before the fact was discovered, death being attributed to the condition of the heart, but

she was known to be a great sufferer from asthma during life, and this must have had a good deal to do in bringing about the fatal result.

On an examination of the specimen by Dr. Gibb, he found that the body of the uterus had undergone absorption, which thus accounted for its small size; and he looked upon the small horny growth as a degenerated fibrous tumour, whose pedicle had now become membranous.

Dr. GIBB for Mr. J. T. PAUL, 15th of November, 1859.

29. *Fibro-cystic growth expelled from the uterus.*

The specimen was expelled from the uterus of a lady æt. 55, a patient of Mr. Cholmondeley, whose husband had been dead some years. It was not known whether she had had children. The catamenia were reported as having been present up to the present time. The expulsion of the substance exhibited took place after a severe, and even alarming hæmorrhage from the uterus, of two or three days' continuance; and a week afterwards, a mass resembling the one exhibited, but smaller in size, was expelled in a similar manner. The only thing known as to the previous history of the patient was, that some months previously she had suffered from varicose veins of the legs.

The mass, smooth on one side and rough on the other, resembled in shape a cast of the uterine cavity: at its broader extremity there was an appendage, evidently a part of the mass, which had been moulded to the interior of one of the Fallopian tubes. Externally (measuring two inches by one and a-half), it resembled a fibrous tumour of the uterus, and, when examined microscopically, was found to be composed of elements similar to those of fibroid tumours. The surface presented small cysts, however, in places, which cysts contained a grumous, whitish matter. On incising the growths at various points, the structure was found to be semi-cystic in character,—that is to say, circumscribed cavities were seen, containing a white substance quite soluble in æther,—evidently fat; and the greater part of the mass appeared to consist of cavities more or less considerable in size, all filled by a substance more or less resembling those described, and covered superficially by tissue identical with that of fibroid tumours.

The interpretation given to the appearances above described was, that the specimen was one of fibroid tumour of the uterus,—of the sub-mucous variety, most likely,—which had been growing for a long period, had had its growth arrested some time, possibly for years before its expulsion, and that the various centres of development in the fibrous tumour had become softened down and converted into fatty matter, giving rise to the cystic appearance. The tumour had become gra-

dually separated from the uterus, and finally cast off and expelled, the expulsion being attended with loss of blood.

The reported regularity of the catamenia up to a recent date, was probably only a semi-periodic discharge of blood, caused by the irritation produced by the presence of the tumour.

Dr. GRAILY HEWITT, 15th of November, 1859.

30. *Fibrous tumour of large size. Enucleation. Death.*

The following notes were furnished by Dr. Tyndall Robertson, of Nottingham:—

The tumour, part of which was sent, had been growing about five years. The patient was a lady, æt. 50. She was the mother of two children, and had been in indifferent health for some time. When the tumour began to protrude from the labia, she began to suffer greatly from dragging pains in the loins, difficulty in micturition, and sanguineo-purulent discharge, by which she was much exhausted.

I saw her, with Mr. Hine, on the 20th of September. Protruding from the vagina was a large pear-shaped mass, covered with mucous membrane. This was ulcerated in parts, and sensitive. The finger could detect no os uteri, and the mass seemed to extend beyond the reach of it. On the 27th of October, Mr. Hine, with the assistance of Mr. Jos. Thompson, removed a large portion of about the size of an orange. The enclosing membrane bled at first pretty freely, but the tumour itself, which was firm and whitish in colour, did not bleed more than a few drops. The patient took chloroform, felt no pain, and speedily recovered from the effects of the operation. After some days had elapsed, another examination discovered the os uteri with the tumour attached to the posterior lip. The os grasped it firmly, and would not admit of the finger passing between them.

There was still a good deal of purulent discharge from the inflamed surface of the tumour; and it was determined to remove the whole mass as near as possible to the uterus, which could not be done before, on account of its large size preventing its attachment being discovered.

Accordingly, on the 17th of November, the patient was again put under chloroform, and two pairs of hooks were applied to the tumour, so as to make gentle traction upon it, and bring it as much as possible into view.

After a short time, without much force being applied, the os uteri suddenly seemed to dilate, and the whole mass came away. There was a smartish bleeding for a few minutes, easily controlled by plugging.

The tumour had contracted some adhesions with the posterior wall of the vagina, which had to be broken down with the fingers.

On examining the uterus after the operation, the os was found widely open, the internal surface smooth, with the exception of one point, about an inch in size, at the back. From this a nipple-shaped projection hung into the cavity of the vagina, about half-an-inch long. It seemed, on comparing this with the intra-uterine surface of the tumour, that there had been some closer adherences at this spot than elsewhere, and that this was a piece of the lining membrane of the uterus, which was separated when the tumour became detached.

Under the microscope the tumour presented wavy fibres, irregularly distributed throughout a granular-looking stroma.

The patient progressed most favourably until the 25th of November, when she had a rigor, and great pain down the course of the left sciatic nerve. (She had previously had swelling and pain along the course of the femoral veins.) This was removed by a stimulating liniment. For two days she was easier. On the 27th, the rigors recurred, and she sank gradually without pain, dying on the 29th.

No post-mortem examination was allowed. Pyæmia was believed by Mr. Hine to have been the immediate cause of death.

DR. PRIESTLEY for Dr. TYNDALL ROBERTSON,
20th of December, 1859.

Report on the above tumour.—The Committee report, that the specimen submitted for their examination has all the characters of a fibrous uterine tumour of considerable size. Its weight is about one pound; its form ovoid and slightly flattened,—an appearance of constriction being present towards one extremity, beyond which a portion of the tumour, the size of a small orange, is of less diameter than the rest, and seems like a smaller tumour united to the main mass at the seat of constriction. The larger end of the tumour is covered, for the most part, with pavement-epithelium similar to that on the vaginal mucous membrane. On what is supposed to be the posterior aspect, the surface of the tumour is lacerated, as though some adhesions had been torn through, and a large vein filled with coagulum is here laid bare, running in the direction of the long axis of the tumour.

The smaller end of the mass, which is said to have been enclosed within the os uteri at the time of operation, is not clothed with epithelium; but its surface is perfectly smooth, and there is no appearance which indicates the pre-existence of a pedicle, as in the common forms of polypus.

On section, the mass is of uniform texture, pale, or of milky-whiteness, and rather soft, but no milky-juice is yielded on scraping. The microscope shows the structure to consist principally of fibrous tissue, which, on the addition of acetic acid, dissolves in the usual way,

leaving the ordinary small oval nuclei. In addition are many fusiform and simple rounded or oblong cells, with single nuclei, but no elastic tissue or large muscular fibres.

Dr. WM. O. PRIESTLEY.

Dr. SAMUEL WILKS.

Dr. J. LANGMORE, 3rd of January, 1860.

31. *Cancer of cystic ovaries. Cancer of stomach, liver, peritoneum, &c.*

M. G., a widow, æt, 64, was admitted under my care on the 8th of September, 1857. She stated, that six months previously, after three or four months failure of health, her abdomen began to swell, and her appetite to fail; and that the legs became œdematous two months since.

On admission she was extremely emaciated, was suffering from ascites and anasarca of the lower extremities, and complained of thirst, loss of appetite, nausea, and constipation. There was epigastric uneasiness, but no tenderness; the superficial abdominal veins were enlarged; tongue dry and furred; pulse 100.

She was tapped on the 18th, and died three days afterwards.

Post-mortem examination.—The body was much emaciated. The thoracic viscera were tolerably healthy. There was a little recent peritonitis, and a considerable amount of cancerous infiltration of the peritoneum. The liver presented numerous cancerous growths; a malignant ulcer existed in the stomach, and three or four in different parts of the small intestine. Many of the abdominal lymphatic glands were the seat of cancerous deposits.

The uterus was somewhat flattened, but it was firm, and its arteries were somewhat rigid. The os uteri, vagina, and bladder were healthy. The ovaries formed two lobulated masses, the right somewhat larger, the left somewhat smaller than the fist. The lobules appeared to vary in size from that of half a hen's egg to that of a small pin's-head. Many of them, and especially the smaller ones, had an opaque-white colour, and a solid consistence and look; and many of them were also thin-walled cysts, through the parietes of which fluid could be distinctly recognized. Their surface presented many shallow circular pits of various sizes. On section the tumours were found to be distinctly cystic; the cysts varying from the size of a hen's egg downwards, and containing in all cases a clear limpid serum. The walls varied remarkably in thickness, in some cases measuring at least an inch in this direction, in others constituting an exceedingly delicate membrane; and occasionally, too, perfectly solid lobules of considerable size were observed.

The solid substance of the tumours was softish, but elastic; juicy, yet furnishing little creamy fluid; generally of a milk-white colour, but in

some situations pink from vascular congestion. It was for the most part homogeneous, but was here and there somewhat softened, or presented small imperfect cysts, or irregular cavities, which were possibly commencing cysts.

The cysts themselves varied in form, occasionally being spherical, but generally irregular, from the fact of several having more or less perfectly coalesced. Their internal surface presented the ordinary serous character. It was sometimes smooth (with the exception of being marked here and there by crescentic folds, and circular or oval depressions, such as are common in ordinary ovarian cystic growths); but more commonly studded with clusters of small spheroidal solid nodules of a white colour and soft consistence. These clusters were found quite as frequently in the smaller as in the larger cysts, and formed patches of irregular outline, and from a square inch or more in area downwards. The individual nodules were generally the size of a mustard-seed or smaller, sometimes sessile, sometimes pedunculated, always closely aggregated, frequently more or less blended with one another by their bases, and producing a cauliflower-like appearance. In no case probably did the nodulated growths project more than a quarter of an inch beyond the general surface of the cyst.

The ovarian tumours were incrustated in a thin tough fibroid membrane, like that covering ordinary ovarian tumours, and to some extent distinct from the softer cancerous material forming the chief thickness of the walls. Similarly, the immediate boundary of the cysts was in general a thin but tough fibroid layer, except in those situations in which nodulated excrescences projected from the surface. Further, in most cases, when cysts were separated from one another, or from the surface by a thin translucent membrane, this membrane consisted solely of fibroid tissue.

The view I have taken of these ovarian tumours is, not that they were primarily cancer, but that they were ordinary cystic growths which had become the seat of cancer, just as the peritoneum and other serous membranes may become affected by the like disease. I believe, therefore, that the cyst, and the fibroid membranes bounding them, were due to the original disease; that the abundant softer material now forming the chief bulk of the tumours, had originated in cancerous infiltration of the walls; and that the nodulated excrescences into the interior of the cyst, and, to a less degree, from the surface of the tumours, were the result of an out-growth of the infiltrating material. In some places the gradual encroachment of the malignant growth into the partitions between the cysts were well marked.

Microscopical examination.—The fibroid layer on the surface of the ovarian tumour, and those forming septa between the cysts, consisted

solely of fibroid tissue and vessels. But the soft material, forming the chief thickness of the wall, was constituted of a delicate network of fibroid tissue, with large meshes which were occupied by nuclei. These were round or oval, about as large as blood corpuscles, and, occasionally, only presenting indications of being contained within cells. The vegetations were formed almost wholly of nuclei of the same kind, and the surface of the vegetation presented a sharp, well-defined line, which might be the indication of a basement membrane, but looked rather like the limit of some transparent gelatinous (?) matrix. There were indications of epithelial lining to some of the cysts.

Dr. BRISTOWE, 17th of January, 1860.

32. *Alveolar (not colloïd) cancer of the uterus.*

S. P., a widow, æt. 38, was admitted into St. Thomas's Hospital on the 27th of July, 1858, and died on the 4th of the following January, with most of the usual symptoms, needless to detail, of cancer of the uterus.

Post-mortem examination.—The body was extremely emaciated. In the right groin was a nearly circular ulcer, about two inches in diameter, with thick fungating edges, and an irregular excavated surface. The thoracic viscera were all healthy. Peritoneum for the most part, stomach, intestines, spleen, pancreas, and supra-renal capsules quite healthy. The liver, which was generally pale and healthy, contained several masses of cancer, from the size of a chesnut downwards. They consisted chiefly of a softish creamy-white material, yielding copious cancer-juice, were more or less globular, and shaded off generally at the margins into the surrounding tissue. The kidneys presented, in their cortical substance, several circumscribed white patches, doubtless cancerous. Many of the lumbar glands were converted into tumours, from the size of a pigeon's egg downwards; and a mass of glands (distinct from those in the groin), about as large as an orange, occupied the right side of the pelvis, and adhered to the uterus. All of these were soft, and, on section, found to consist of comparatively large cavities, full of a soft, opaque, greenish-white, sebaceous-like material, and separated from one another, more or less completely, by a fibroid network—the remnant of the original gland-tissue.

The uterus was about as large as a duck's egg, and beyond being more rounded than natural, little altered in shape; but the surface was rather thickly studded with broad-based, pearly granulations, from the size of a split-pea downwards. The cavity of the organ was normal as to size, and its mucous membrane generally healthy. The walls were increased in thickness, and, on section, presented, in many

respects, the appearance furnished by the section of a cirrhoted liver—an appearance due to the muscular parietes being studded with globular cavities, from the size of a tare downwards, filled with white sebaceous-like matter, which projected in a hobnailed manner from the sectional surface. The contents of the cavities could be readily squeezed out, and scraped or washed away—a peculiar honeycombed appearance being then produced. The cavities were very abundant, and increased in size and number from the inner surface of the organ towards the outer, on which latter they constituted the projecting pearly bodies, previously described. The cervix uteri was similarly affected; but the os, with the upper part of the vagina, was in part destroyed by ulceration. The walls of the lower and posterior half of the bladder, in their entire thickness, were involved (by extension) in the uterine disease, and the corresponding mucous surface was ulcerated. The malignant deposit occupied, as in the case of the uterus, distinct sacculi. The ovaries and Fallopian tubes were healthy, but partly adherent to surrounding parts.

Microscopical examination.—The cancerous material, whencesoever derived, was found to consist of elongated cells, irregular in form, and with indistinct nuclei (Plate IV., Fig. 9). Their arrangement in the uterus reminded one of that of epithelial cancer-cells; but the individual cells did not present the usual epithelial character, and there were none of the thick-walled cells, or of the distinctly-laminated capsules so characteristic of epithelial cancer. The tissue surrounding the sacculi of cancerous matter in the uterus presented the same ultimate structure as healthy uterine walls.

Dr. BRISTOWE, 21st of February, 1860.

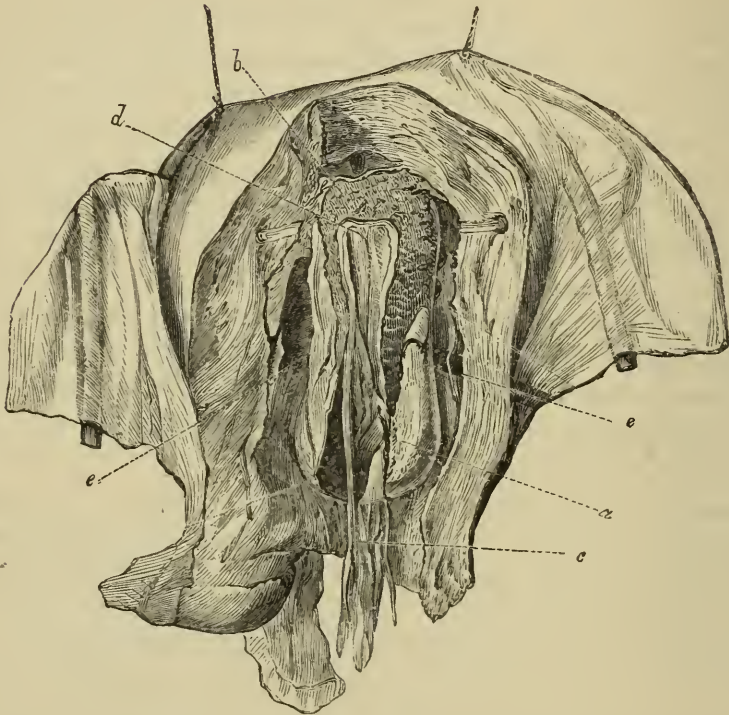
33. *Large mass within the cavity of the uterus, supposed to be a fibrous tumour, but which proved to be formed by retained placenta and fetal membranes.*

The specimen consisted of an unusually large, but completely contracted uterus, and its appendages, with the substance in question attached to its inner surface at the fundus, and occupying the entire cavity.

The woman from whom the uterus was removed, died after an operation for femoral hernia, and on removing the uterus, a quantity of dark semi-coagulated blood, along with some shreddy tough material was found protruding from its orifice. On passing the finger through the os uteri, a firm resisting substance was detected within, and on laying open the cavity, the large mass before spoken of, and figured in the accompanying drawing was brought into view. (Woodcut 9.) As before said, the mass occupied the whole of the cavity. It was more

or less cylindrical in shape, of a brownish-red colour, smooth on its surface generally, and was rounded at its lower extremity (Fig. *a*), but

WOODCUT 9.



Represents the uterus laid open, to show the polypus-like mass within its cavity.

- a.* The lower rounded portion of the mass.
- b.* The upper spongy part of the mass.
- c.* The loose membranes proceeding from its interior, where they form (*d*) a cavity.
- e.* The thick layer of material lining the inner surface of the uterus.

perforated for the passage of the shreddy membranous material alluded to as protruding into the vagina and covered with blood. Excepting at its upper termination where it was, as it were, continuous with the muscular structure of the uterus (so closely united was it with the organ itself, that its structure looked as if identical, at first sight), its whole extent was free, and could be with ease lifted out of the uterine cavity in which it was embedded. Posteriorly, it was somewhat marked and indented longitudinally, having rather a plicated appearance. On longitudinal section through its centre, the following appearances were met with. The lower part of the mass was firm, and of a dark colour, being full of blood which stained it, but this firmer more dark-coloured part gradually passed, towards the attached or upper portion of the mass, into a lighter-coloured and more sponge-like part (Fig. *b*); and the loose

membranous materials pendant from the apex of the mass were found to pass upwards, almost to the summit of the mass internally, and to form the boundaries of a central cavity (Fig. *d*) in which much serous and bloody fluid was contained. The walls of this central cavity were very firm and of a light colour, and were thrown into longitudinal folds projecting inwards. From this cavity the blood which was seen oozing out from the apex of the mass, had evidently found its way along and between the membranes (Fig. *e*) which formed a kind of channel for its exit. The main portion of the mass, the spongy-looking part, was permeated by small canals looking like veins, and some of them appeared continuous with the central cavity, but were not so in reality. The entire mass was connected with the substance of the uterus, by means of very strong, dense, and short bands which proved to be parts of the muscular tissue of the uterus, which, owing to firm adhesion of the mass to the interior of the organ had been drawn out by the pressure, or attempts at expulsion of the mass.

In addition to the polypus-looking mass, the inner surface of the uterus was found to be lined by a very thick and rather firm layer of substance, which, at first sight (see Fig. *e*), looked like ordinary fibrinous exudation of somewhat old standing; and which could be elevated and dissected off by a little manipulation.*

Microscopical examination showed that the large proportion of the mass was evidently of a villous character; the villi being in some places much altered, rendered opaque, and occupied by fatty deposit. The lower part of the mass consisted of coagulated fibrin or blood chiefly, which had become contracted and moulded by the uterus. The membranes which hung from the mass and passed upwards forming the parietes of the central cavity were found to consist of simple fibrous structure.

The dense fibres connecting the whole mass to the inner part of the uterus were seen to be of exactly the same character as those composing the body of the uterus, viz., the ordinary muscular fibre-cells, which are so well known to exist in the virgin uterus, and in the uterus a few weeks after parturition. None of the elongated fibre-cells of the impregnated uterus were met with.

Remarks.—Considering all these facts, there seems no doubt that the whole structure was formed by the retention of some part of the placenta and membranes of some foetal growth. Nothing like a foetal growth or germ itself was found, and no history could be obtained of the patient's antecedents as to when, or whether she was supposed to have been pregnant. Most probably there had been an abortion, and

* The specimen is now put up in St. George's Hospital Pathological Museum.

certain of the appendages of the fœtus had been retained and tolerated by the uterus, and in time became so increased in size, by the addition of coagulated blood and fibrin, as to form the large polypus-like substance described.

That this substance had existed in the uterus for some length of time is, I think, evident, as well from the general appearances of the mass, the contracted and firm condition of the uterus, &c., as from the manner in which it was united to the fundus of the uterus. No doubt the placenta, or part of it, where adherent to the uterus, had never been removed; it had shrunk, become folded on itself by the contracting uterus, and, partly by its own pressure, partly by reason of the efforts on the part of the uterus to exclude it, had so dragged upon the inner part of the fundus uteri as to pull down from its walls the large number of muscular fibres forming the oblique dense bands seen in the drawing as uniting the mass to the body of the uterus.

The interest of the case arises (1.) from the rarity of such an occurrence as the retention of the placenta and fœtal membranes; (2.) the complete immunity from anything like decomposition or septic action, which might be anticipated in such a case; and (3.) the curious resemblance which the entire mass had, at first sight, to a fibrous polypus of some kind.

DR. JOHN OGLE, *6th of March*, 1860.

34. *Case of extra-uterine fœtation, in which the fœtus was retained fifteen years in the abdomen of the mother.*

Twenty-eight pieces of bone were exhibited, which now form part of St. Thomas's Hospital Museum. For these specimens, and for the following history of the case connected with it, I am indebted to my friend, Mr. Sutcliffe, late House Surgeon at the West Herts Infirmary.

"M. H., æt. 56, living at Watford, was admitted into the West Herts Infirmary on the 9th of April, 1857, under the care of Mr. Whately; is the wife of a servant on the North Western Railway, has been married thirty-six years, and has had three children, the youngest of whom would now have been twenty-one years old had she lived. After the birth of her last child she enjoyed her usual good health for about five years, when, whilst walking one day in the street, she was suddenly attacked with syncope, and fell down; she was carried home and soon rallied; about a month after this she noticed she was increasing in size, but did not think herself pregnant, as the enlargement was confined to the right side; her catamenia had, however, ceased, and did not reappear for about a year; she felt ill, and not getting better, gained admittance into University College Hospital, three months having elapsed since she first noticed the tumour; she

remained there nine weeks, during which time the swelling was leeches and poulticed without much effect; she left of her own accord, her abdomen having become immensely distended, and 'feeling as if the integuments would burst.' Shortly after leaving the Hospital she felt movements in her inside, which she compared to what she had previously felt when pregnant; her breasts also became enlarged, and had well-marked areolæ around the nipples, from which there was some discharge; her bowels were habitually constipated, and her legs became œdematous. She remained much in the same condition for about five months after leaving University College Hospital, when she began gradually to decrease in size, and continued to do so until she became nearly her natural size, though still feeling a considerable tumour, which, however, did not cause her any very great inconvenience for about thirteen years. At the end of this time she began to suffer much from pain in the back and loins, but it was not until two years later that she observed bones were being passed by the rectum. This brings the history to about one year previous to her admission into the Infirmary; during the whole of this year she had, at times, passed bones, some hair, and masses of a substance very like India-rubber.

On admission (9th of April, 1857), she looked very anxious and careworn, was suffering much from pain in the loins of a dull, aching character, which prevented her from getting much sleep; her pulse was 100—very feeble; the parietes of her abdomen were flaccid, but there were evidently signs that it had been previously distended; the muscles seemed to have lost all their tone, the abdominal surface being uneven and depressed. The vagina was healthy, no communication existing between it and the rectum. On introducing the fingers into the rectum, much the same sensation was experienced as one would feel had it been filled with oyster-shells: a number of flat bones could be reached and moved about; one was brought quite to the anus; but the sphincter contracted firmly when any attempt was made to draw it through that orifice, and shortly after, the bone was evacuated at stool, and proved to be a considerable part of a parietal bone, fitting with another portion which she had voided before. She brought with her several bones that had been discharged previous to her admission—viz., a tibia, a humerus, a scapula, a clavicle, three ribs, part of a parietal bone, the petrous portion of a temporal bone, a sphenoid, half of an inferior maxilla, some processes of vertebræ, &c. All were much discoloured, and smelt very offensively: some were encrusted with a crystalline substance.

During her stay in the Infirmary of eleven weeks, the following bones were passed at different times:—Two frontal bones, the upper part of the occipital bone, and four pieces of parietal bones. She was

allowed full diet, with porter, and took two grains of quinine three times a-day. Her health much improved, and, when discharged on the 18th of June, 1857, no tumour was to be felt, or any bones, on examination per rectum. She had lost the pain in her back, slept well, and was altogether in very good health. She promised to inform us if any more bones were passed; but we have not heard from her, so suppose that all have been voided. Many were lost, as she did not always take precaution to save them.

Mr. Sutcliffe remarks:—"The probability is, that this was a case of tubal foetation, the first symptoms being produced by the rupture of the dilated Fallopian tube, causing hæmorrhage, but which could not have been to any great extent, as she recovered so soon without any abdominal inflammation. The very sudden manner in which it first manifested itself would favour the idea of the Fallopian tube being the seat of the arrest of the ovum."

"The case is one of much interest, from the long time the foetus was retained—viz., between fifteen and sixteen years. Dr. Cambell gives a list of seventy-five cases of this nature, in only fifteen of which was it retained a longer period than in this case; in one it was retained so long as fifty-six years." SYDNEY JONES, M.B., 17th of April, 1860.

35. *Case of tubarian pregnancy, terminating fatally between the fourth and fifth month.*

History.—Mrs. F., æt. 23, residing in Maida Vale, pregnant with her first child, having, according to her calculation, and that of the medical man who attended her, entered into her fifth month of utero-gestation, and being in good health, was seized with abdominal pain of a severe character, and attended with vomiting. About five o'clock on the 10th of February, 1860, her medical attendant was sent for, and visited her about seven P.M.: he made a vaginal examination, and did not think that her pains were uterine, and prescribed aperient pills and an anti-spasmodic mixture. She continued to get worse, and died in a state of collapse a little before four o'clock on the following day. The friends of the lady were anxious to have a post-mortem examination made, and I was requested to make it, which I did on the 13th of February, in the presence of Mr. McOscar (the patient's attendant), and my neighbour, Mr. Smale, who kindly rendered their assistance.

Post-mortem appearances.—On exposing the peritoneum I could see through it serum and a quantity of coagulated blood above the pubic region, and on laying the membrane open, I removed about three pints of bloody serum; occupying the whole pelvic cavity, and extending upward to the abdomen, was an immense coagulum, which, on removal,

exposed to view the ruptured tube, and the fœtus, contained in the amniotic bag, was seen resting on the small bowels. I made an examination per vaginam, and found the os slightly dilated. Having had permission to remove the specimen, I took great pains in removing the uterus, with a portion of the vagina, and all its appendages, in a perfect state.

The uterus was found increased considerably in size, and a quantity of bloody mucus exuded from it; on laying it open, a deciduous membrane of an unmistakable character was presented to view. The left Fallopian tube had become greatly increased in size, and the rupture had occurred in correspondence to the attachment of the placenta. The ovaries were of the usual size, and the fœtus was a well-developed male. I am not aware of there being any case, so far advanced as this, on record.

Mr. ADAMS for Dr. J. ALLEN, 15th of May, 1860.

VI.—DISEASES, ETC., OF THE OSSEOUS SYSTEM.

1. *Disease of the inferior fourth of the left femur and of the knee-joint.* *Amputation. Description of the morbid parts.*

History.—G. H., æt. 44, was admitted into Guy's Hospital, under Mr. Birkett, on the 16th of May, 1859. He was healthy-looking, a carpenter, and resided in a village in Kent. He attributed the disease to an injury inflicted by falling on the part, about eleven months since. A short time after this accident, the knee gave him so much pain that he was compelled to keep in bed, and he remained five months so confined to the recumbent posture. Suitable measures were employed to afford relief, and he recovered sufficiently to be able to get out, and, with the assistance of crutches, to walk about.

The disease had existed about ten months, when he came under the observation of Mr. Birkett. The head of the tibia was behind, and to the outer side of its normal relations with the condyles of the femur, so that considerable prominence existed at the outer side of the knee, and the leg was twisted. The patient himself attributed this deformity to a habit of sitting by the side of a low bedstead, upon which he supported his leg; and, indeed, this seems a good explanation of the circumstance. The inferior third of the left thigh was much larger than the same region of the right limb, was hard, and the soft parts firmly united together. The patella and tibia were firmly united to the femur; and two sinuses, one on either side of the condyles of the femur, discharged pus, and, through them, exposed bone was easily felt with a probe.

As there seemed to be no hope of restoring the limb to a useful condition, and as the man's health was failing under repeated inflammatory attacks, Mr. Birkett proposed to amputate. To this proposition the man readily assented, and the operation was performed on the 14th of June. Great difficulty was experienced in reflecting the flaps, the soft parts being so firmly united together by adhesive lymph, and the irregularities on the surface of the femur preventing a free use of the knife. The wound united by adhesion, and the man left the Hospital on the eighteenth day after the operation, well.

The knee-joint was perfectly disorganized. The articular cartilage was entirely destroyed, with the exception of traces on the external surface of the tibia and the external condyle. The internal semilunar cartilage had disappeared,—traces of the external remained. The internal condyle of the femur, and the internal articular surface of the head of the tibia, were united together by bone. The patella was united by bone to the anterior surface of the external condyle of the femur. The external condyle and the external articular surface of the tibia were separated by soft, vascular granulations of fibre-tissue. The cancellous tissue of the condyles of the femur was carious; that of the tibia was not diseased. A small sequestrum existed in the shaft of the femur; and the external surface of the shaft, and of both condyles, had large quantities of new bone developed upon them.

Mr. JOHN BIRKETT, 18th of October, 1859.

2. *Laceration of the articular cartilage of the femur.*

Mr. Holmes exhibited the lower end of the femur, showing a small piece broken off the articular cartilage. The patient had sustained a compound fracture of the femur, communicating with the knee-joint, and other severe injuries, for which primary amputation was performed. He died of pyæmia.

The preparation showed the lower end of the femur, which had been separated from the shaft by an irregular fracture just above the condyles, and was traversed by another fissure passing through the internal condyle into the joint. The cartilage on the external condyle was affected with old disease (fibrous degeneration), and near the diseased part, but not apparently connected with it, a shred of the cartilage was found torn away as far as its circumference, and hanging down from the bone by a pedicle composed of the soft parts (periosteum, &c.), around the bone. The surface of the bone was thus quite denuded.

The case was reported as bearing upon the one communicated to the Medico-Chirurgical Society,* by Mr. Teale of Leeds.

* Med.-Chir. Transactions, Vol. XXXIX., p. 31.

In that case, indeed, the injury of the cartilage is not so clearly demonstrated as in the one before us, since it is possible, that the portion of cartilage, which was afterwards found loose in the joint, may have been separated, not by injury, but by that chronic action which some writers describe as fibrous degeneration, and others as chronic ulceration. It is to be remarked upon Mr. Teale's case, that the disease and the direct effects of the injury are separated from each other by an interval of twelve months, during which there is no history: so that, without denying that Mr. Teale's explanation of the case is the correct one, and in fact while fully adopting it, we must allow that it is not proved to demonstration to be correct. But in the instance before us, we believe no such ambiguities to exist. The parts were removed immediately after the accident, and the laceration of the cartilage was perfectly fresh, its edges quite cleanly cut, and bearing no resemblance whatever to the effects of chronic action of any kind. Besides, the neck by which the portion of cartilage was suspended was formed, not of the cartilage itself, but of the periosteum and fibrous tissue around the bone, the laceration having extended beyond the limits of the cartilage. Further, although some portions of the articular cartilage were in a diseased condition (as to which disease no particulars were ascertained from the patient), the part where the laceration existed seemed perfectly healthy. These appearances, we think, leave no doubt as to the reality of the lesion pointed out by Mr. Teale, and the fact furnishes an additional support to his conclusion, that loose cartilage in this joint may sometimes be produced by the partial laceration of the articular cartilage, and its subsequent separation by chronic morbid action.*

Mr. T. HOLMES, 18th of October, 1859.

3. *Bony parts forming the left knee-joint, removed by the operation of excision, on account of disease of long standing.*

This specimen consisted of the osseous structures forming the left knee-articulation, which were removed on account of a very diseased condition of the joint.

History.—The patient was a man æt. 28, and was sent to Mr. Price at the Great Northern Hospital, by Mr. Garland of Yeovil. The man was a labourer, and for many years had suffered from repeated attacks of chronic inflammation of the knee-joint. Each attack was worse, and kept him for a longer time in Hospital or at home, incapable of doing work. Some few months ago he sustained an injury of the affected joint, and was compelled to give up all occupation. The

* Preparation now in St. George's Hospital Museum, as No. 2, Sub-series vii., Series i.

lungs now began to show evidence of implication. Cough, dyspnœa, pain, and night-sweats became constant symptoms, which were increased in proportion to the distress complained of in the joint. The man having been treated by moxæ, blisters, issues, &c., for some time without experiencing any relief, Mr. Garland strongly advised him to submit to some operation which might permanently remedy the disease of the joint. For this reason he was sent to Mr. Price. The joint presented all the symptoms, in a marked degree, of what is termed "ulceration of the cartilages." Pain on the slightest movement, of a darting and severe kind, and of a still severer character when any manipulative examination was attempted, plainly told the great extent to which diseased action had advanced. The head of the tibia was partially dislocated, while the head of the fibula had been slightly loosened from its attachments. No amount of opium could procure the patient rest and ease from pain, and as he was gradually sinking, an effort was made to save his life. One serious drawback, however, existed to an operation. A few days after the patient was admitted into the Hospital he had two severe attacks of hæmoptysis, which greatly reduced his strength. An examination of the chest showed that the apex of the right lung was extensively involved, and that, in all probability, tuberculous mischief had considerably advanced. The rubbing in of croton-oil liniment over the side of the chest, free administration of iron, and liberal diet soon caused a great improvement in the poor fellow's condition. The disease of the joint evidently was advancing, and on this ground, although the patient was in a condition not very favourable for a severe operation, still it was deemed expedient to point out its importance, provided it could be resorted to with moderate hope of success. The man willingly acceded to the suggestion, and the joint was removed. The operation was attended with marked relief and improvement to the general health. Sleep was obtained the first night, without recourse to opium; and so rapid was the improvement, that, at the end of the seventh week, he left the Hospital with a sound and useful limb. The cut ends of the femur and tibia were united apparently by bone. The general condition had also greatly improved, although there still remained undoubted proofs of existing lung mischief.

On examining the portions of bone which were removed, it was found that the synovial membrane was completely destroyed; the ligaments much altered, and the surfaces completely deprived of their cartilaginous coverings. The femoral portion, which consisted of about two-thirds of the condyles, was deeply eaten into at parts, and the head of the tibia presented the same condition. The patella was likewise deprived of its cartilage.

The specimen was interesting as exhibiting the following points:—

1.—That disease of the joint had greatly accelerated co-existing mischief of the lungs, but that, on removal of the destroyed articulation, the pulmonary disturbance rapidly mended.

2.—That the practice of removing a disease which was doing incalculable mischief to the system was, although the prognosis was far from favourable, attended with cure of the local affection, as well as marked mitigation of the pulmonary lesion.

3.—That chronic inflammation of knee-joint, even when remedied, is capable of reproduction on the slightest stimulus, and at last attains to such a degree as to demand removal ere the system succumbs to the irritation it occasions.

4.—That this form of disease—one that is limited to the structures immediately composing the joint—may be advantageously treated by excision in preference to amputation. Mr. PRICE, 1st of November, 1859.

4. *Right leg removed by amputation, on account of extensive ulceration of the soft structures, as well as disease of the tibia and fibula, in a highly scrofulous girl.*

Some months ago, a girl, æt. about 18, had been sent to the Children's Hospital at Margate, on account of scrofulous affections of the eyes and legs. Under treatment, the ophthalmic mischief was soon arrested; but the extensive nature of the disease involving the legs was such as to resist any remedial measures.

The disease consisted of extensive ulcerations of a deep and angry character, excavating for an inch or more in depth the integument and muscles of the calf and sides of the leg.

These ulcers were conglomerative, and discharged a semi-purulent secretion; they were attended with the most acute pain, and, under special circumstances, displayed considerable tendency to increase. On probing those situated over the tibia and fibula, rotten bone could be felt. Such being the case, the patient was placed under chloroform, and all the included bone that could be detected was taken away. The ulcers were also removed, so that a clean surface might be obtained.

Previously to this operation, the unhealthy sores had been destroyed with nitric acid, but no good followed. Constitutional treatment had been amply tried. Large doses of opium, iodide of potash, mercury, bark, &c., &c., had all been employed, but to no great advantage. Finding that the health of the patient, by reason of the excessive pain that she hourly suffered, was fast declining, and that all medicinal means, local applications, and partial removals of appreciable disease were of no permanent avail, amputation of the limb was performed,

about three inches below the knee. Complete healing rapidly ensued; the girl became free from all her former pain, and soon regained a much improved state of health.

The left leg, however, which was affected, but to no such degree, gave her at times some annoyance; but hopes were entertained that the existing mischief might be removed by an energetic resort to medicinal and other local means.*

Although the disease occurred in a girl aged eighteen years, of a highly scrofulous constitution, still it was open to question if it did not partake somewhat of the characteristics of syphilis. No history, however, could be obtained of the pre-existence of this disease, either hereditary or acquired; so that, while some of the symptoms and physical characters of the affection simulated those arising from venereal infection, still there was no further reason to suspect more than a scrofulous origin. Certainly it is seldom that scrofulous ulceration of soft and hard tissues assumes such an extreme form, although it does so occasionally.

Mr. Price had recently seen a case of similar disease in the person of a young lady of the same age; but in this instance, resolution was obtained without recourse to amputation.

It is difficult, however, to account for the unyielding nature of the ulcerations, even when the general condition of the patient was improved; and the specimen shows that it is occasionally necessary to resort to the removal of a limb, even when disease of both hard and soft structures is limited, but rendered unbearable by reason of the distress it occasions.

MR. PRICE for Dr. W. P. PRICE, 1st of November, 1859.

5. *Head of the right femur, removed on account of scrofulous disease of the right hip-joint, of four years' standing, from a boy nine years of age.*

A few months back, a little boy, *æt.* about 9, was admitted into the Children's Hospital at Margate, suffering from extensive disease of the right hip-articulation. The child was of a naturally delicate constitution; but the pain which he had endured during three or four years had induced that amount of wasting and hectic which is so commonly met with in those who labour under well-marked scrofulous disease of the larger joints.

Although the little fellow could offer but an imperfect history of the origin of the affection, still it was not difficult to surmise that poorness

* Since this report, the other limb had become so diseased as imperatively to demand removal.—P. C. P., *May*, 1860.

of living, and other circumstances, combined with extreme poverty, had favoured any natural or induced tendency to diseased action.

On a careful examination, the buttock was found greatly swollen, although the muscular coverings had disappeared. One or two fistulous communications with the deeper parts opened on the outer side of the great trochanter, which was rendered prominent, by reason of the position which the thigh had assumed—viz., drawn across its fellow—so that its inner and anterior surface rested against the lower portion of the belly. The slightest motion caused excessive pain; while the painful startings that occurred at night tended to increase the general irritation of the entire system. Although, at first sight, from the position assumed by the upper portion of the femur, and the twisted appearance of the pelvis, luxation of the head of the thigh-bone might be supposed, with good reason, to exist, yet symptoms, and certain peculiarities, were exhibited, which induced the belief that the capsular ligament was still entire, and firmly encased the femoral portion of the joint.

From the very painful and distressing nature of the joint-affection and the improbability of any serviceable amount of resolution obtaining, even if the health of the little fellow held out, no hesitation was experienced in arriving at the conclusion that an operation,—the removal of the implicated parts,—was not only advisable, but necessary. On the 10th of January, 1860, the child being placed under chloroform, a still more careful examination of the joint was made. Any slight doubt that existed as to the position of the head of the femur was now dispelled, for it was distinctly traced occupying the cavity of the acetabulum.

On opening the articulation, the head of the femur was found, in parts, bared of its cartilage, the synovial membrane was pulpy, dark-purple in colour, much thickened, and otherwise greatly diseased. The floor of the acetabulum was *quite* healthy, except at one or two spots, which, however, were only *suspected* to be in an unnatural condition.

The wound soon closed, and the little fellow rapidly improved in health and condition.

The head of the femur, showed that a slow, tedious inflammation of the right hip-joint had resulted in the total change of the synovial tissue, and in deprivation of the articulating cartilage of the caput femoris. The bone beneath the remaining portions of cartilage, and that which had been deprived of its covering, was softer than natural, although, to all appearance, not in an actual state of disease.

The specimen likewise illustrated a fact which many surgeons and pathologists dispute—viz., the absence of disease in one portion of the

bony parts forming the hip-articulation; and also that a very considerable amount of disease may invade this special joint, without leading to rupture of the capsular ligament, and displacement of the head of the thigh-bone.

Mr. PRICE, 7th of February, 1860.

6. *Head of the right femur, and portions of acetabulum, removed on account of scrofulous disease of the right hip-joint, of four or five years' standing.*

A boy, æt. 10, had been sent to the Metropolitan Infirmary for Scrofulous Children, at Margate, suffering very acutely from scrofulous disorganization of the right hip-joint. The lad was extremely exhausted, and appeared to have been a severe sufferer for some years. Bad nourishment and indifferent management had tended greatly to reduce a naturally weak and sickly frame.

On admission, the body was thin and impoverished, the limbs slight, and the appetite poor; in fact, the child had become greatly reduced. The right hip presented all the signs of extensive disease. One or two sinuses opened by fistulous ulcers on the back part of the buttock. On the inner side of the thigh, about two inches below the groin, a large ulcerated hole existed, which admitted the passage of a probe for some distance towards the pelvis. The nates were flattened, and the muscular portion almost entirely wasted. The thigh tissues had gradually disappeared, and the bone seemed merely covered with skin. The position assumed by the child was characteristic of the disease. As the little fellow lay on the bed, the body was twisted, and reclined on its left side, with the head and shoulders turned towards the right side. The right thigh, firmly grasped with the right hand, was flexed upon the pelvis, so that it touched the somewhat enlarged belly. The leg was flexed at an obtuse angle to the thigh. The head of the femur did not appear to be dislocated, while, from the thinning of the nates, the great trochanter was clearly distinguished. Through the fistulous canals unhealthy matter was constantly discharged. The child could not bear the least motion of the affected joint. Considering the nature of the disease—which I took to be extensive implication of the head of the femur and acetabulum, with total destruction of the functions and organisms of the joint—I strongly urged removal of such portions of the articulation and neighbouring parts as were diseased. The operation was acceded to, and on the 29th of October, 1859, I removed the head of the bone, which was firmly held in the cavity of the acetabulum by means of the capsular ligament, and such portions of the acetabulum as I found diseased. Two-thirds, if not more, of the acetabular portion of the pelvis, in a necrosed state, were taken away

by means of the cutting-pliers and forceps. A large abscess was detected within the pelvic bones, which was cleared of unhealthy-looking pus and lymph; and the head of the femur robbed, to a great extent, of its investing cartilage, and deeply ulcerated, was removed by cutting through the base of the great trochanter. The parts were adapted and retained in position by means of a long interrupted side-splint. After the operation the child was greatly relieved, although he suffered somewhat from shock. Some days elapsed ere he received any marked benefit from the proceeding, when he rapidly improved, and although the suppuration, owing to the very large cavity that remained, was extensive, still he gradually gained flesh, appetite, rest, and strength.

At the present time he is steadily advancing towards convalescence, although it will be sometime before a useful limb is obtained.

The specimen shows, that in disease of the hip-joint, the morbid action may be confined more to one bony portion of the articulation than to another, for while the head of the femur was only really diseased so far as its cartilage and connecting layer of bone were concerned, the acetabulum was seriously involved, the greater portion of its floor being necrosed. Moreover, that although the destruction to the joint was so great, yet no rupture of the capsular ligament, admitting the luxation of the head of the femur had occurred. And, lastly, that even when the hip articulation is so involved, especially that portion formed by the pelvis, and usually indicated by the fistulous openings on the inner side of the thigh, operative measures may be undertaken with a greater freedom and hope of success than is generally admitted.

Mr. PRICE, 7th of February, 1860.

7. *Rectangular fibrous union of a fractured femur.*

This specimen was removed from a female subject, æt. 74, in the dissecting-room of the Westminster Hospital. (*v.* Deformed pelvis from same subject p. 202.) The whole bone was very slight and fragile, the compact tissue being exceedingly thin, and the medullary canal filled with fatty matter, presenting, in fact, the appearances of one form of *mollities ossium*. The fracture had taken place about three inches below the great trochanter, and the upper fragment was united to the shaft at a right angle by strong fibrous tissue, which allowed of slight motion. A section through the point of union showed the non-existence of a synovial cavity.

Although no reliable data could be obtained, it appears probable from the condition of the parts, that the fracture took place in adult life, and it was remarkable how slight the amount of external deformity was as the body lay on its back, owing to the rotation of the head of the bone,

allowing the limb to come into the same line as that of the opposite side.

All the bones of the extremities were exceedingly brittle, so that a number of post-mortem fractures were discovered in the course of dissection.

Mr. CHRISTOPHER HEATH, 7th of February, 1860.

8. *Necrosis of the os hyoïdes, with ulceration of the pharynx.*

This specimen was taken from a girl, æt. 22, who was admitted, under my care, into Guy's Hospital, upon the 3rd of January, 1860. She was a pale, attenuated-looking patient, who had never experienced good health, but had no definite complaint or illness.

Three weeks before coming under observation, she was attacked with an ulcerated throat, which gradually became worse; but when seen there were no symptoms of laryngeal mischief. The ulceration of the throat was very extensive, involving the whole soft palate and the posterior wall of the pharynx. The uvula had entirely disappeared.

Regarding the case as one of syphilitic origin, careful inquiries were instituted; but no other questionable symptoms were present, and no history of it could be obtained, the girl denying most positively having been in the way of contracting such a disorder.

Tonics and local stimulants were given with apparent advantage, as the soft palate cicatrized. Upon the third day after admission, some huskiness of voice appeared, accompanied with difficulty in deglutition. Stimulants and liquid nourishment were freely administered; but the patient gradually sank, six weeks after the first appearance of the disease, and three weeks after her admission into the Hospital, having for a few days previously been confined to her bed from pneumonia, but unaccompanied with any laryngeal obstruction.

Post-mortem examination.—Extensive pneumonic consolidation existed of a low type, having evidently been the primary cause of death.

The walls of the pharynx, base of the tongue, and the whole of the upper part of the larynx, down to, but not involving, the vocal cords, were covered with ulceration. The two greater corners of the os hyoïdes were projecting and necrosed, one being loosened from the body of the bone. The epiglottis had disappeared, with all the folds of the mucous membrane of the larynx above the rima.

Upon examining the genitals for any signs of syphilis, nothing could be detected: the vagina was small, and a partial hymen was present. The uterus was also in a healthy condition. The skin was clear, and free from any stain, and the inguinal glands were also natural. Upon the whole, no one fact could be obtained, with the exception of the character of the pharyngeal ulceration, to support the opinion that the

case was one of syphilitic origin; and it remains a question whether the primary seat of the disease might not have been located in the os hyoides, and the extensive ulceration be produced as a secondary result.

Mr. THOMAS BRYANT, 7th of February, 1860.

9. *Separation of the shaft of the femur from its epiphysis at the knee, the result of violence. Excision of the joint. Recovery.*

W. J., æt. 15, was admitted into the Charing Cross Hospital on the 21st of October, 1859, under the care of Mr. Canton. At the time of the accident he was playing with another boy, and, with the view of eluding him, he was about to run under the body of a horse that stood close by. The animal, however, seeing him approach, rose on his forefeet, knocked him down, and then kicked him violently above the left knee with one of his hind hoofs. On his attempting to rise, the lad found himself unable to stand, and, to escape further injury, he was forced to roll along the ground out of the horse's reach.

On admission, the affected limb was seen to be shorter than its fellow; foot quite everted; leg slightly flexed; patella directed outwards; great and general swelling around the knee, and with such distortion of the parts as to give the impression of the tibia being dislocated backwards and somewhat outwards. The inner femoral condyle appeared to project unduly, and the skin covering it was tense and abraded. On the outer side, and above the patella, a forward elevation of bone could be felt. Careful manipulation of the lower end of the femur elicited crepitus. By extension and counter-extension, the due length of the limb was restored, the patella resumed its natural position, and the projections referred to became obliterated. The usual appliances maintained adjustment.

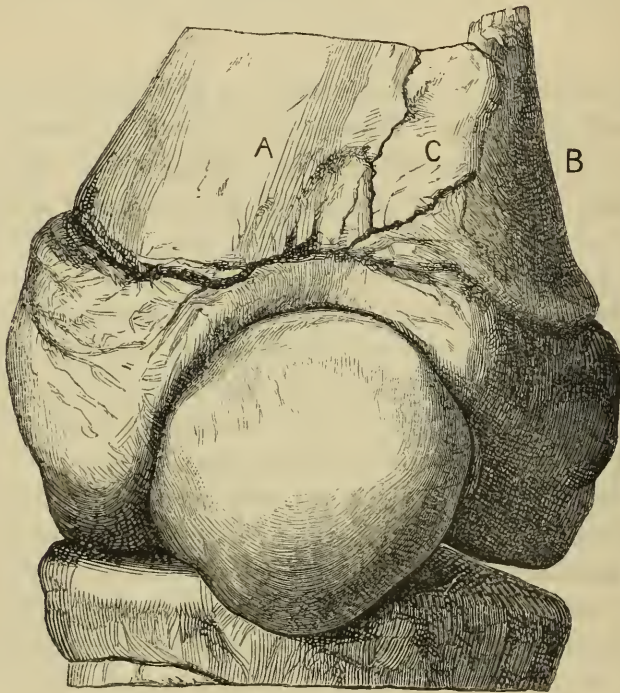
The progress of the case was favourable until the end of October, when the great restlessness of the patient, from his intolerance of restraint, gave rise to inflammation of the joint. On the inner side of the knee, a slough began to form, and its separation, after two days, allowed of slight projection of the subjacent bone. High constitutional irritation set in, and Mr. Canton excised the articulation on the 3rd of November.

In the operation, the fragment of bone marked c, and which had been driven backwards by the kick, was found lying loose in the popliteal space. (Woodcut 10.)

The preparation shows a separation of the shaft of the femur from its lower epiphysis to have occurred in about three-fourths of its circumference (A), whilst the remaining fourth is still firmly fixed in normal position (B). An oblique fracture extends through the substance

of the shaft, and, commencing at its outer side, reaches down to the epiphysis, where it joins with the line of separation between these two

WOODCUT 10.



The figure represents the portions of bone removed by the operation. The different parts are sufficiently described in the text.

parts. Between the attached (B) and separated (A) portions, the fragment (C) before spoken of is seen (restored to place).

The patient made a perfect recovery.

In referring to the numerous excisions of the knee-joint which have been performed within the last few years, Mr. Canton stated that they had, almost invariably, been undertaken for *disease*. Besides the present case, which formed an exception, Mr. Canton referred to another which had fallen under his care, and presenting almost exactly similar features to the one now before the Society.* In this case, also, he had excised the knee-joint. By a curious coincidence, both of these examples occurred within the course of twelve months.

MR. E. CANTON, 7th of February, 1860.

* Vide the "Lancet" of 28th of August, 1858.

10. *A specimen of disease of the tarsal bones, in a foot removed by Pirogoff's operation.*

The principal seat of the disease was the head of the astragalus, which was extensively destroyed, and the navicular and cuboid bones; and in character it might be described as a combination of caries and necrosis, presenting the usual characters of both in different parts.

The disease had existed for three years, and two years ago amputation was proposed at St. Bartholomew's Hospital, but declined by Mr. Lawrence, after a medical report that tubercular disease existed in the lung.

The patient had since remained under the care of Dr. Richardson, who considered that the lung disease had not advanced, whilst the strength of the patient had been much impaired by the pain and exhausting influence of the disease of the foot. Under these circumstances, Mr. Adams removed the foot by Pirogoff's operation, on the 16th of February, 1860, and the patient is making rapid recovery. Dr. Simpson's method of acupressure was successfully employed, and easily controlled the hæmorrhage from the anterior tibial artery, from which the needle was removed in forty-eight hours, without any secondary hæmorrhage occurring. It could not be so well applied to the posterior tibial artery, in consequence of the thickness of the skin of the heel and bending of the needles.

Mr. W. ADAMS, 21st of February, 1860.

11. *Case of diseased tarsus. Amputation of the foot at the ankle-joint.*

The patient, a gentleman, æt. 50, of rheumatic habit of body, came under my care in November, 1858. The disease in the foot for which he sought for advice had existed twenty-five years, during the whole of which period there had been but little surgical interference, beyond the evacuation of matter by incision from time to time from the seat of suppuration in and around the diseased part.

The state of the foot at this time was as follows:—The ankle-joint was sound, and its movements perfect, the whole anterior part of the foot was normal in aspect. The soft tissues on the outer and inner side beneath the malleoli were swollen and œdematous. Immediately below the outer malleolus was a patch of diseased integument, about one inch and a-half in diameter, riddled with openings discharging a copious and very offensive pus. Through each of these a probe could be passed into the interior of the os calcis to a considerable depth in a direction downwards and backwards over rough and irregular bone. In the expectation and belief that the disease was limited to the os calcis, an

exploratory operation was advised, consented to, and performed, and a sequestrum about an inch in length removed. This was found lying loose in a perfect sequestral capsule, the walls of which were formed by the surrounding substance of the os calcis. A close examination of the parts exposed failed to detect any other disease, and, therefore, the case afforded abundant hope of cure, without further mutilation, in which opinion the surgeon who assisted me (Mr. Henry Smith) concurred. The wound slowly filled up, the œdema subsided, and the diseased integument became healthy, but one small sinus never entirely healed. The patient, however, rapidly recovered his health and strength.

On the 2nd of August, 1859, he received an accidental kick near the seat of operation, which caused him excessive momentary pain. On the 6th, regardless of this, and of the caution enjoined—in the excitement of his business he hung up his stick which served him as a support, and walked about unaided for three consecutive hours. The result of this indiscretion was a violent attack of inflammation of the whole foot, and extensive suppuration in various parts of it; this suppuration recurred at intervals, greatly undermining the patient's health and spirits, so that on the 25th of October, it being evident on examination that the entire tarsus was in a diseased state, amputation was proposed, and this advice being confirmed by consultation, I accordingly removed the foot on the 2nd of November, by the method which bears the name of Mr. Syme. The patient made an excellent recovery.

The examination and dissection of the foot removed, showed that the sinuses which honeycombed the outer surface of the tarsus, led down into a large suppurating cavity, which was bounded by the bones normally limiting the cuboid bone, and which enclosed, within the irregular space thus constituted, the carious cuboid itself. This bone although deprived of all its cartilaginous and ligamentous structures, and further reduced by caries to about two-thirds of its original bulk, still retained an outline somewhat resembling its pristine shape, and it lay loose within this suppurating cavity. Around it the tarsus showed two varieties of disorganization, erosion and ulceration of cartilage, such as involved the opposed surfaces of the scaphoid and astragalus and the free posterior articular surfaces of the fourth and fifth metatarsal bones; and general thickening of the ligamentous tissues with firm ankylosis, amounting to fusion, of the os calcis and astragalus.

The articulation of the scaphoid with the inner and middle cuneiform bone also appeared thus firmly ankylosed, but prolonged maceration shows that motion still existed between them. These bones are soft, and easily penetrated with the knife.

In short, caries of bone and erosion of cartilage had not only attacked the cuboid itself engaging all its articular surfaces, but had further

extended into the contiguous astragalo-scaploid joint, while around this radius of caries and its changes, nature had effected the limitary, if not reparative change of inflammation, ending in a great and osseous re-productive effort. Mr. T. CARR JACKSON, 6th of March, 1860.

12. *Little finger with entire long flexor muscle and tendon torn off by machinery.*

The man to whom this belonged when at his work as a mechanic, got his finger fast in the belt of rapidly-revolving wheels; the finger-end was torn off with the whole of the tendon and muscular fibres of the deep flexors of the little finger. The middle phalanx of the finger, which was much broken, was removed, and the wound healed by the first intention. The arm soon lost the tenderness, without any suppuration, and the arm was shortly as well as ever, with the full power of flexion and extension of the proximal phalanx.

Almost invariably when long muscles with their tendons are thus violently torn away, a considerable amount of suppurative inflammation ensues, and often a tedious and incomplete recovery is the result. In this case not a drop of pus formed.

Mr. NUNNELEY, 20th of March, 1860.

13. *Bone removed in an amputation at the hip-joint.*

The specimen was a portion of the femur, all that was left of that bone after two consecutive amputations performed at St. Bartholomew's Hospital; the former by Mr. Lawrence in December, 1858, the latter by Mr. Coote in August, 1859. The patient came under Mr. Hancock's care in the Charing Cross Hospital, on the 19th of February last in a very emaciated and worn condition, with the hope that something might be done to save his life.

The stump of the thigh had never healed after either amputation; the skin and muscles were much wasted; the stump was conical, and from its end projected a swollen-looking bone covered by florid granulations; two ragged ulcerations on the outside of the limb, and one on the inside just below the groin, kept up a constant discharge of dark-coloured pus. It was deemed desirable to give him a chance by amputation at the hip-joint, which was accordingly performed on the 25th of the month (February, 1860). The only unusual circumstance at the operation was, that the femoral artery was obliterated, its place in the stump being supplied by a quantity of the smaller vessels so greatly enlarged that many required ligature, as soon as the interior flap was

formed. After the operation the man rallied considerably; but about two o'clock on the following morning faintness came on, from the effects of which he rapidly sank.

The end of the bone, which during life had projected from the stump, was found to be much enlarged—the enlargement consisted chiefly of a growth from the end left after the last amputation, it was larger in circumference than the rest of the femur, but consisted of hard and apparently osseous tissue. On the inner side of the femur was another growth, larger than a walnut, of firm bone, which was connected only in one part by osseous matter to the shaft, and elsewhere only by a cartilaginous material.

The stump of the femur was split open from end to end, laying open its medullary cavity, in which there was greater vascularity than usual, and in parts the medulla was suppurating. The substance of the bone was rather redder than normal, and its thickness seemed somewhat increased. In this view the relations of the additional bone at the end of the stump could be more distinctly traced; it appeared to grow chiefly from the inside of the cavity, and in part also from the truncated end, hardly from the outside of the bone. In front and to the outer edge it projected less than behind and to the inner side where it grew out and overhung, forming a mushroom-like cap to the end of the stump. The head of the bone and the joint were healthy. The only abnormal condition—that which had prevented the healing of the stump after the previous amputation, appeared to be this development of new bone. Ordinarily, after amputation, osseous substance is thrown out at the end of the sawn bone, and of its medullary cavity, which covers the truncated end and closes in the tube. After a time a process of absorption commences rounding off or pointing the end. In this case it appears that the first process, the formation of bone, was too abundant, and continued too long—absorption did not set in, so that the new bone constantly grew and projected at last out of the amputation wound.

Mr. BARWELL, 20th of March, 1860.

14. *The parts removed in an excision of the elbow-joint.*

This case was one of suppurative inflammation of the elbow-joint, under the care of Mr. Canton; the joint was removed on account of the ravages which the local disease had produced in the general health of the patient. The cartilages were in general thinned and soft, but nowhere fibrous. Particular attention was directed to a small round ulcer in the centre of the cup of the radius, where it was evident, that no false tissue from the synovial membrane (such as that to which Mr. Aston Key attributed cartilaginous ulceration) could have reached.

DESCRIPTION OF PLATE VI.

Fig. 1 illustrates Mr. Barwell's paper on the Microscopic Structure of the Articular Lamella of Bone, p. 201.

Figs. 2 and 3 illustrate Mr. Hulkes' communication on the same subject, p. 216.

Fig. 2. Represents a vertical section of the articular lamella, of the proximal end of the second phalanx of the toe.

- a.* Superficial limit of articular layer.
- b.* Deep limit of do.
- c.* Stratification of articular lamella.
- d.* Cartilage cells, appearing as large black objects.

Fig. 3. A similar section, treated with dilute nitric acid, to show the striation of the matrix.



Fig. 1.

Fig. 3.

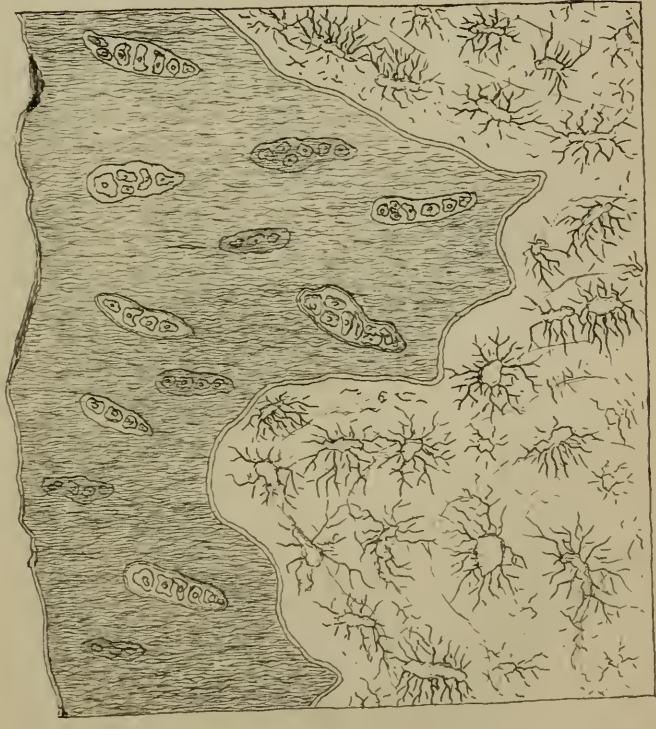


Fig. 2.

The edges of this ulcer were sharp and defined, "as though cut out with a chisel" (Sir B. Brodie), and presented that appearance which Mr. Barwell attributes to acute inflammation of the cartilages.

Mr. BARWELL, 20th of March, 1860.

15. *Articular lamella.*

Mr. Barwell brought forward in reply to a desire expressed to the President, by Mr. Toynbee, sections and preparations of bone, showing the articular lamella in two different views.

1. A section through the condyles of the human femur. (Male, æt. 31.)

2. A similar section from the humerus. (Male, æt. 20.)

3. A section through the condyles of the femur of a rabbit.

4 and 5. Two specimens of the articular lamella cut from the lower end of the tibia. See Woodcut 11. (From a girl, æt. 19.)

In the first three specimens the articular lamella is seen in section, as it were in profile, and it is easily distinguishable by its generally greater transparency than the rest of the bone, and by the lines of black cells (undeveloped bone cells of Koelliker) running at right angles to its edge. It is about a tenth of a line in thickness in the human subject, but this is very variable; it is lighter in colour and more transparent near its free than its attached edge, where it is brownish in hue. The structure is very hard, closes in the spongy texture of the bone towards the joint, and presents a firm unyielding support to the cartilage, but it never lies immediately upon a cancellous cavity; some ordinary bone material always interposing between the space and the structure in question. Where such a cavity is large, the enclosing bone encroaches a little upon the thickness of the lamella, on the other hand, where an interval, larger than usual separates two cancelli, an angular process of the lamellar structure dips further into the bone. Thus the thickness of the material is varied. The free edge is also serrated, but more finely and evenly.

On examining this material with some of the higher powers of microscope (either a one-eighth or a well-defining one-fourth object glass) a number of fine wavy lines may be seen running from the attached to the free edge of the section. They do not appear to have any especial connection with the lines of black cells. (Plate VI., Fig. 1.)

Specimens 4 and 5 show this lamella from the surface, that is to say, that these specimens are not so much sections, as merely the actual lamella cut from the rest of the bone. In them the black cells do not appear lengthened ovals, as they do in the profile view, but circular, the whole specimen between these black circles being occupied by a mul-

titude of minute scattered spots, which in the thicker parts of the section tell dark, but in the thinnest sections look like holes; these are the ends of the wavy lines. (Woodcut 11.)

WOODCUT 11.



This figure represents a section through the thickness of the articular lamella, with the subjacent cancellated bone, of the upper end of the human humerus (500 diameters). [From the "British and Foreign Med.-Chir. Review," October, 1859.]

The wavy lines were described by Mr. Barwell in his paper on the subject (*Medico-Chirurgical Quarterly Review*, October, 1859), as tubes as far as bony substance is concerned; he still maintains them to be so, but he does not conceive them to be lined by a tubular membrane, but probably by compound fibre, as he also believes the canaliculi of ordinary bone to be occupied. Such fibre would allow the transmission of fluid, even more freely, he conceives, than a tube of so fine a calibre. The appearances of the 4th and 5th specimen require no comment.

Mr. Barwell founds upon these appearances, the idea that nutrient fluid passes from the epiphysal vessel to the cartilage through this lamella, and that this is the only nutrient source for the cartilage. Mr. Toynbee and others have conceived that the cartilage might derive some of its nutrition from the bone, but the possibility of such deviation is contradicted by their assertion, that the articular lamella is impervious.

Mr. BARWELL, 20th of March, 1860.

16. *Contracted female pelvis.*

This pelvis was from a female subject in the dissecting-room of the Westminster Hospital, the same from which a fractured femur was

taken (*vide* page 193). The body was of diminutive size, and the limbs presented several post-mortem fractures in addition to the one noted above. The age of the subject was 74, and she was ascertained to have been bedridden for two years previous to death, but no further particulars could be learnt. The pelvis exhibited the changes ordinarily caused by mollities ossium, the acetabula being thrust upwards and inwards, and the pubes forward, a space of one inch only intervening between the opposite rami. The following are the principal measurements:—

| | Antero-Posterior. Inches. | Tranverse. Inches. | Oblique. Inches. |
|------------------|------------------------------|-----------------------|---------------------|
| Brim | 3½ | 4⅔ | 4½ |
| Cavity | 4⅛ | 4¾ | 4 |
| Outlet | 2⅜ | 2 | 3 |

The sacrum was much bent, its promontory projecting considerably above and the coccyx below, thus diminishing the measurement of the inferior aperture to a great extent.

The bones of the pelvis were soft and flexible, but those of the limbs were excessively brittle and filled with fat, and thus apparently the two varieties of mollities ossium were found in the same subject. The hymen was found entire, and the vagina and uterus of small size; and as the woman was known to have been an inmate of a workhouse all her life, it may be presumed that impregnation had never taken place.

Mr. CHRISTOPHER HEATH, 3rd of April, 1860.

17. *Fracture of the head of the femur (apparently produced during life), the result of injury sustained by jumping, in a maniac.*

The specimen exhibited showed the summit of the head of the femur to have been separated from the other parts, and to be much softened, the fractured surface of the neck being also softened.

Extensive ulceration of the cartilage in the acetabulum was also found, and much purulent matter escaped on cutting down to the joint.

History.—The patient was a maniac, æt. 41, who for many months had been in the habit of jumping and stamping violently. It was suddenly found that she was unable to stand or rise from bed, and it was conjectured that she might have broken the neck of the femur. No alteration, however, in the shape or length of the limb was observed, but she was never again able to quit her bed. She died eventually of phthisis with perforation of the bowel *five months after* the supposed accident to the thigh-bone.

The specimen was sent to me by Dr. Boyd, of the Somerset Lunatic Asylum.

Remarks.—The point of special interest in this case to my mind, would have been to have determined, if possible, whether the fracture of the bone was accidentally made during the post-mortem examination, the bone having been previously carious and brittle; or whether the fracture was affected at the time of the supposed accident, and was to be considered as the direct and immediate result of the violence of jumping and stamping maniacally, the diseased state of the bone following the fracture, being in fact secondary to it.

Dr. JOHN OGLE, 3rd of April, 1860.

18. *Diseased and ankylosed knee-joint removed by excision.*

This joint was removed from a boy, æt. 11½, in June, 1858. He had suffered from disease of the left knee, following scarlet fever, and had lately been under treatment at one of the Metropolitan Hospitals where amputation had been proposed, but refused by the parents. When he came under my care at the St. George's and St. James's Dispensary, the knee was fixed at a right angle, and was slightly swollen, there were several discharging sinuses about the joint and he complained of pain in the part. The anchylosis being quite firm (even under chloroform), and the extent of disease considerable, I determined to excise the joint. On turning up the flap, I found the patella attached to the outer condyle of the femur, and the femur firmly ankylosed to the tibia, and I therefore removed the whole articulation in a wedge-shaped piece, and afterwards a further slice of the femur. The boy made a good, though tedious, recovery, owing to the persistence of sinuses, and there is now exactly two and a-half inches difference between the two limbs. (For cases and drawings, *vide Lancet*, 7th of July, 1860.)

The portions exhibited had been macerated for a few weeks to remove the diseased and thickened synovial membrane, but not sufficiently to remove the remaining cartilage. The part of the femur removed measured exactly one and three-quarter inches, and that of the tibia at least one-quarter of an inch, so that the present shortening (after nearly two years), is only half-an-inch more than the portion removed.

The articular cartilages of the femur and tibia are almost entirely destroyed, the extremities of the bones, particularly the femur, being also considerably eroded. The patella is attached to the external condyle, and the internal condyle to the tibia by very strong fibrous tissue admitting of slight motion, but the anchylosis between the external condyle and the tibia has become ossified, as can be seen by a section made for the purpose. The whole of the epiphysis of the femur seems to have been removed, but only a small part of that belonging to the tibia, and in the latter is a cavity which was occupied by strumous material.

The present condition of the boy is most satisfactory, firm osseous ankylosis having taken place, and the limb with the aid of a high boot being a most servicable member.

Mr. CHRISTOPHER HEATH, 3rd of April, 1860.

19. *Necrosis of the frontal bone of a child.*

A female child, æt. 15 months, was brought to me at Guy's Hospital, with a large discharging abscess over the left frontal bone.

History.—Six months after birth she had received a scratch from a rusty nail over the left eye, and inflammation and suppuration, which lasted some months, followed.

When seen there were several fistulous openings communicating with necrosed bone. She was admitted into the Hospital, and the bone was removed, and as will be seen from the specimen presented, it includes nearly the whole left half of the frontal bone, leaving only the orbital plates. From the commencement of the child's disease, no head symptoms made their appearance. The child was well nourished and evidenced no symptom of any general affection. The dura mater of course was freely exposed, and appeared to be granulating. It will be interesting to watch the process by which nature will repair such an extensive mischief in so young a child, and to observe whether ossific matter may not be deposited from the so-called Wormian bodies, and thus by extension cover in the exposed brain. Up to the present time (about six weeks after the removal of the bone), repair is going on most satisfactorily.

Mr. BRYANT, 17th of April, 1860.

20. *Portions of bone, being the remains of the head and neck of the femur, and part of the acetabulum, removed in consequence of disease of the hip-joint.*

These specimens were removed from a boy æt. 6½, who had been the subject of disease of the hip-joint during two years and a-half. The larger fragment was the remains of the head and neck of the femur, with a portion of the healthy epiphysis of the trochanter-major attached. The smaller portion was one of many pieces of necrosed acetabulum found loose. The patient was much reduced by pain and suppuration, the buttock being riddled by sinuses. The head of the bone was dislocated and lying upon the dorsum ilii, causing great distortion of the affected member. An incision about three inches in length over the head, and parallel to the long axis of the femur, readily exposed the diseased bones to the finger.

Mr. MAUNDER, 17th of April, 1860.

21. *Fracture of the acetabulum.*

Mr. Holmes exhibited an os innominatum, showing extensive fracture through the acetabulum. The patient, a man *æt.* 70, was admitted into St. George's Hospital on the 26th of March, 1860, having fallen from a scaffold, a height of between eight and nine feet. He could not give a very clear account of the accident; but it appeared that he had fallen upon the left buttock, as that part was extensively contused. He had not the slightest power of moving the left thigh. There was no shortening of the limb, and no eversion of the foot. On making passive motion of the femur, no crepitus could be detected, but acute pain was produced. The pelvis was carefully examined, but appeared natural. He was put to bed in the horizontal posture, and during the next week went on well, except that he could not quite empty his bladder, though he could pass some urine. He complained, at the same time, of pain about the lower part of the abdomen, which he attributed to his retention of urine. The daily use of the catheter relieved him, and he soon recovered complete control over his bladder.

On the 9th of April, it is noted that he was quite well in health, but a large bed-sore had formed on the lower part of the back. Accordingly an attempt was made to get him out of bed, so that he might sit on a chair; but the attempt gave him such acute pain in the hip that he almost fainted. After this he complained of more pain, principally referred to the knee, but also in the thigh; and there was much *œdema* of the left lower extremity. A bandage was applied. He was ordered to take laudanum and stimulants; but his appetite failed him, and he began to sink, without any very definite symptoms. He had no vomiting, rigors, or perspirations; but his pulse gradually failed, and his tongue became dry and brown. On the day before his death he complained of pain in the right wrist and shoulder, but no redness or swelling existed there. He died on the 21st of April, twenty-six days after the accident.

Post-mortem examination.—The legs seemed of exactly the same length, but they were not accurately measured. The left was freely moveable in all directions, while the right was stiff, from post-mortem rigidity. No crepitus was felt in the left hip, and on cutting down upon it the capsule of the joint appeared intact,—the joint was full of sanious pus. The condition of the ligamentum teres was not noted. The head and neck of the femur were removed. The bone was very strong and solid, and was quite uninjured. On placing the finger in the acetabulum, it was found to be traversed by a very extensive fracture, causing a wide gap or chink in the floor of that cavity, through which the finger could be thrust into the pelvis. The floor of the

DESCRIPTION OF PLATE VII.

The Figure illustrates Mr. Holmes' case of Fracture of the Os innominatum, p. 207.

- fig. 1. Represents the external surface of the left os innominatum.
- fig. 2. The internal surface of the same bone.

Fig. 1.

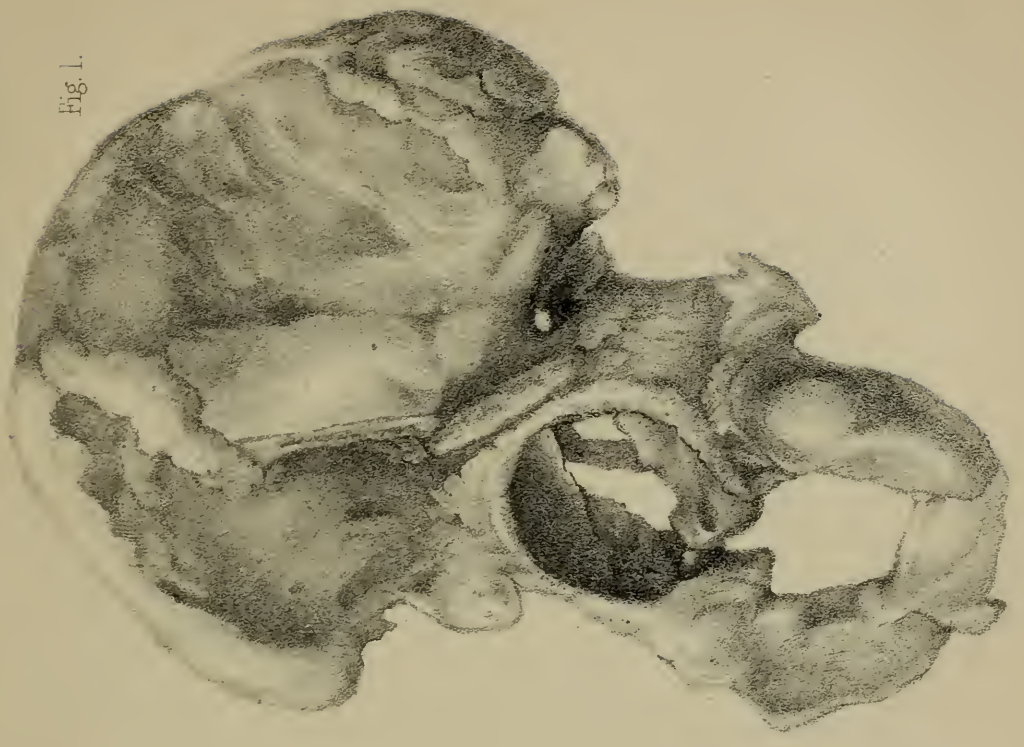
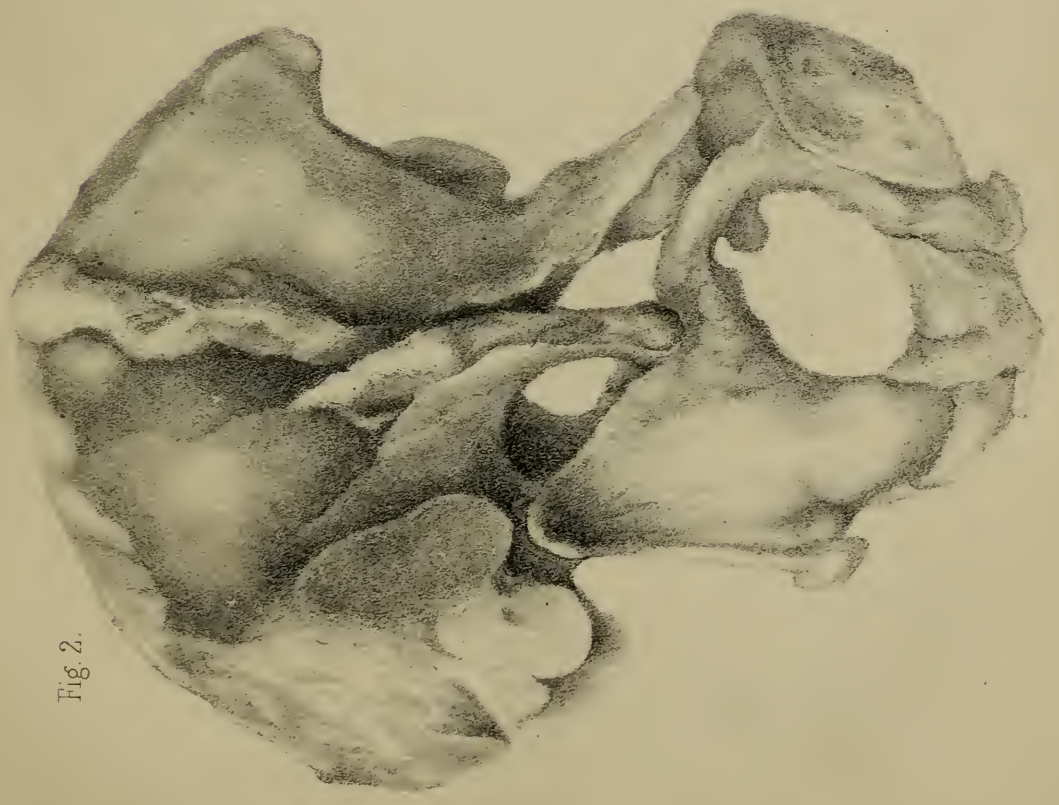


Fig. 2.



acetabulum had been driven inwards towards the pelvic cavity (Plate VII.); and thus a very complicated fracture of the os innominatum had been produced. The principal fissure ran across the acetabulum, passing from the upper part of the great sacro-sciatic foramen nearly horizontally forwards to the spine of the pubes, dividing the acetabulum into two unequal portions (the larger below), and separating the expanded portion of the ilium from the rest of the os innominatum. This principal fissure was joined by another running obliquely upwards from the acetabulum nearly to the crest of the ilium, but not quite reaching it. The two parts into which the ilium was thus separated were not on the same level, the anterior being displaced inwards, so as to be depressed, near the acetabulum, about half-an-inch below the other. The posterior fragment terminated in front in a large toothed process, which crossed the gap in the acetabulum, and had apparently opposed the passage of the head of the femur between the fragments into the pelvis. Another sharp process, connected with the anterior fragment of the ilium was found sticking into the fibres of the iliacus muscle; but the latter appeared quite healthy, and no pus was found inside the pelvis.

Besides these principal lines of fracture, three others ran into the obturator foramen, one in the acetabulum, from the principal fracture near its anterior end, another through the junction of the rami of the ischium and pubes, and a third through the ascending ramus of the ischium. The two latter fractures were covered by the periosteum, and did not come into view till the bone was scraped. A considerable quantity of fibrous tissue had been laid down between all the fractured surfaces, and over the diploë of the ilium, where it was exposed by the depression of its fragment; but none of the fractures were united.*

This case showed a minor degree of the same injury, of which cases have been brought forward by Sir Astley Cooper, Mr. C. H. Moore ("Med.-Chir. Trans.," Vol. 34, p. 107), and others; and in which the head of the thigh-bone, driven forcibly against the acetabulum, causes a starred fracture of the latter, and passes through the interval between the fragments into the cavity of the pelvis. So extreme was this displacement in Mr. Moore's case, that the trochanter-major was even buried in the acetabular cavity, or at least had worn away a portion of the bone in that situation, and was no longer distinguishable externally. In that case, also (which will well repay perusal, on account both of its surgical interest and the pathological changes which followed the injury), there was fracture on the opposite side of the pelvis, and much distortion of the pelvis from subsequent changes, probably inflamma-

* The preparation is now in St. George's Hospital Pathological Museum, No. 2, Sub-series xiv. (b), Series i.

tory, in the bone, which had thus been so much disintegrated as to yield to the pressure of the body in walking. Still, the patient had recovered so far, that the fractures were all firmly united, though not by bony tissue; and he was able to walk with "only a moderate limp." The case above detailed would very probably have terminated still more happily, inasmuch as union was rapidly progressing in all the lines of fracture, and there was no difference in the length of the limbs, had it not been for the unfortunate occurrence of the abscess around the fracture in the joint, followed by secondary deposit. The direct cause of this suppuration may have been, and very probably was, the displacement and rubbing together of the fractured bones, caused by the attempt to get him out of bed; and the patient's great age and weak constitution (as shown by the early formation of bed-sores), together with the presence of disease of the kidneys, acted, probably, as predisposing and concomitant causes. There is no intention in saying this of blaming the treatment adopted; indeed, some change of position was rendered indispensable, in order to arrest the progress of sloughing in the back. In point of diagnosis, the case is only useful as showing how much injury of the pelvis may be present with very few symptoms. Fracture, both of the femur and pelvis, was, of course, suspected from the severity of the injury, and both were carefully examined; but the absence of shortening negatived the former supposition, and the absence of crepitus the latter.

Mr. T. HOLMES, 1st of May, 1860.

22. *Bursa patellæ removed for chronic inflammation and thickening.*

The subject of the operation, a woman, æt. 39, had suffered from an enlarged bursa for ten years. She had been treated in a great variety of ways without benefit; and, as she was suffering very great inconvenience from it, Mr. Sydney Jones removed it. It was about the size of a large orange, and not only covered the ligamentum patellæ, but extended on each side of this, lying close upon the capsule of the joint. After a removal of the tumour, the edges of the wound were united by sutures, and the limb kept perfectly at rest on a splint. No bad symptoms followed, a great part of the wound healed by the first intention, and in a fortnight she had quite recovered.

The bursa presented a central cavity capable of holding three or four drachms of fluid, and divided into compartments by numerous delicate membranous septa. The walls had a very dense fibrous structure, and were from half-an-inch to an inch in thickness.

SYDNEY JONES, M.B., 1st of May, 1860.

23. *Exfoliations of portions of the maxillary bones with contained teeth (temporary and immature permanent), after attacks of the eruptive fevers in children.*

In the fourth volume of the third series of the *Guy's Hospital Reports*, issued in 1858, I published a little Memoir on the shedding of teeth and exfoliation of the alveolar processes, consequent upon the eruptive fevers; since then many cases of the same nature have come under my notice, and have confirmed the opinions I then expressed.

Had I preserved notes of all the cases of this kind that have been under my own care, I might have recorded the particulars of some twenty cases, and have exhibited a very large collection of these exfoliations. The uniformity of the symptoms and conditions, however, which my little patients have exhibited have rendered the keeping and the record of many histories quite unnecessary, while the display of numerous specimens would be nothing more than material evidence of the singular sameness in all essential characters which they have always displayed. I have preserved only the seven following specimens of exfoliation—four after scarlet fever (two of which were from one person), two after measles, and one after smallpox. This proportion of specimens does not, however, absolutely represent the relative frequency of their occurrence after their three several causes. In some twenty instances that have been under my own observation, two only were after smallpox, about four or five after measles, and the great majority—twelve or fourteen—after scarlet fever.

i. The first specimen consists of the intermaxillary bones and their contained teeth exfoliated after smallpox.

WOODCUT 12.



My patient from whom this was obtained, is a little boy, 5 or 6 years of age, who applied to me at Guy's Hospital on the 23rd of February last. His face at that time exhibited numerous dark, inky pits of recent smallpox, from which he suffered seven weeks previous: from

this attack he was quite convalescent, and he seemed a healthy well-nourished child. About a fortnight after his recovery from the small-pox, the gum from the front of incisive bone on the right side was observed to recede, or ulcerate away, and this was followed in a few days by a similar affection on the left side: the mucous membrane, gradually receding from the bone till near the point where it reflects upon the lip—that on the right side being a little in advance of the left. At the same time the bone was being denuded on its palatal surface. The recession of the mucous membrane here ceased, and in a few days the right incisive bone came away of itself. This occurred early on the morning the patient came to me. When I saw the patient, the left incisive bone was so loose and so nearly detached, that I readily removed it with my finger and thumb. The temporary teeth and the immature lateral permanent incisors had fallen into the child's mouth and been lost.

The exfoliated incisive bones (Woodcut 12), are mere osseous shells, and contained the large crowns of the central permanent incisors: there is a partial excavation on the outer side of each incisive bone, which was occupied by the immature lateral tooth. At their lower margins are the alveolar cavities which contained the fangs of the temporary incisors.

This case is analogous to one brought before the Pathological Society last year by Mr. Bryant—analogous in all essentials, but not in every respect the same, as his case was after an attack of measles, mine after one of smallpox. (See "Pathological Transactions," Vol. X., p. 216.) In Mr. Bryant's case the patient was unusually youthful, only three years old.

In the lower jaw I perceived, on examination, the same process was going on, though in a much less advanced stage—the edges of the gums, corresponding to the four incisor teeth, had just peeled from the edge of the bone. After this the patient did not return to the Hospital and the issue of the case, as respects the lower jaw, I did not know, nor had I an opportunity of getting the specimen. It was quite clear, however, that the same result would occur in the lower as had happened in the upper jaw, and that the incisors—temporary and immature permanent with their containing alveoli and loculi—would be shed.

II. The second specimen was obtained from a child who had suffered from measles, and is similar to the one which would be shed from the lower jaw of the patient I have just referred to. It consists of the central portion of the alveolar part of the lower jaw, just so much as corresponds to the incisor teeth. The temporary teeth were lost, while the bone remained in the mouth, as is generally the case; the immature dentine capsules of the permanent teeth being retained in the shed

bony loculi, excepting the right lateral which escaped and is here figured.

WOODCUT 13.



The figure represents the exfoliated bone, and the crown of the right lateral inferior incisor, which fell from the imperfect sequestrum.

The crowns of the remaining immature permanent teeth remain in their bony loculi in the sequestrum.

I have no further notes of the case, than the record that the previous eruptive fever had been measles, and that the patient was a girl, 4 years old.

III. The third specimen represents the superior first temporary molar and the crown of its succeeding tooth—the first bicuspid. These teeth came away with numerous minute sequestra of the alveolar processes, just sufficient to admit of their liberation.

WOODCUT 14.

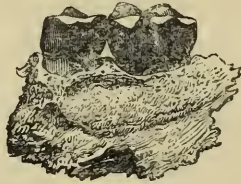


The patient was a little girl, 4 or 5 years old, and just convalescent from an attack of measles. The amount of bone lost was less than in any other example I have seen, and this has been one of the very few cases that I have observed in which the mischief has been confined absolutely to one side of the jaw.

IV. The fourth specimen was obtained from a little girl of 5 years old, who had suffered from a mild attack of scarlet fever about eight weeks before. The peeling of the gum from the edges of the alveolar processes had but just commenced when I first saw the patient. At this time, both on the inside and outside of the temporary molars on the left side of the lower jaw, the gum was stripped for about the eighth of an inch, leaving bare so much of the alveolus, while from within the edge of the mucous membrane, which was red and tumid, issued a discharge of pus. A week after the jaw on the other side was similarly affected, and to just the same extent. The peeling away of the gum and periosteum from the bone gradually progressed for five or six weeks, when the

sequestrum was easily removed with dressing forceps. A similar sequestrum came away from the opposite side about a fortnight after.

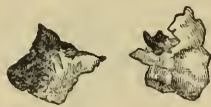
WOODCUT 15.



This specimen consists of about two-thirds of the depth of the lower jaw, on the left side, corresponding to the two temporary molars. The sequestrum involves the immature bicuspid teeth: its jagged lower margin shows that the base of the bone had escaped necrosis.

v. The fifth specimen was obtained from a little girl, between 3 and 6 years of age, and followed an attack of scarlet fever. It came from the upper jaw, at a point corresponding with the first temporary molar. The teeth—temporary and immature permanent had been shed and lost. The same process had commenced on the other side of the jaw to the same extent, but I obtained no specimen from it, as the patient did not again come to the Hospital.

WOODCUT 16.



These little foliations appear to consist wholly of thin bony walls of the loculi of the immature bicuspid: other small sequestra of bone had been previously lost.

vi. The sixth specimen is remarkable on account of the very large amount of bone necrosed. (Woodcut 17.) It was obtained from a little girl, aged 4 years. She was taken ill with a sharp febrile attack on the 21st of July, 1859. No rash was noticed, but from the ignorance of unobservant parents, who are of the lowest class, I should attach very little importance to this negative circumstance. The very faint evidence of eruption which is common in scarlet fever might readily escape recognition in a neglected and dirty child, as this poor little patient was. The general history of this short and sharp febrile illness coincides with that of scarlatina, or perhaps measles; however, the fact that some children in the immediate neighbourhood had scarlet fever at the same time, renders it pretty conclusive that that was the malady from which this little girl had suffered.

About five or six weeks after this febrile illness the face on the right

side began to swell; on the following day two temporary teeth dropped out, and soon after another was shed. The cheek speedily became black, and a large slough from the side of the face of the dimensions of half-a-crown came away. The child had been living in squalid poverty, was very badly fed, and in a state of most imperfect nutrition.

At this time, about the middle of November, she was taken to a Workhouse, and subsequently admitted to Guy's Hospital, under the care of Mr. Birkett, on the 20th of January, 1860.

It was now found, that the main portion of the right superior maxilla was necrosed and very loose; the House-Surgeon at once and very readily removed this sequestrum with a pair of dressing-forceps. The second temporary molar tooth and the tuberosity of the maxilla is all that remained in the mouth on the right side of the upper jaw.

WOODCUT 17.



I need not further describe this specimen, than by observing, that the great bulk of the maxilla has been involved—the nasal process, most of the palatal process, the body of the bone, with the alveoli and loculi of the temporary incisors, canine and first molar, and the four immature successional permanent teeth—the latter being retained within the bone. As the second temporary molar remains in the mouth, the loculus and pulp of the second bicuspid, and the posterior “cavities of reserve” of the permanent molars behind are probably undisturbed.

VII. The seventh specimen (Woodcut 18) was obtained from the same little patient as the sixth; it consists of a portion of the left intermaxillary bone—the socket of the temporal central incisor and the

loculus of the corresponding permanent tooth, the crown of which is, as yet, alone formed. The teeth came away with the bone, and with

WOODCUT 18.



it are represented in the accompanying figure. This exfoliation took place sometime before the child was brought to the Hospital, but the precise date I do not know. The great disparity between the size of the sequestra from the two sides of the jaw is remarkable and very unusual; the tendency to symmetry, almost constant in these cases, is so far maintained that the jaw was affected on both sides, though it is lost in the disproportion of the amount of bone affected. It must be remembered, however, that there was an exceptional element in this case, and that the wide-spread sloughing on the right side of the face laying bare the maxillary bone to so great an extent (very probably dependent on the cachectic condition of the child), may offer a reasonable explanation of this disproportion.

The common characters of all the salient points of these cases and specimens lead me to conclude, that the phenomena commence by damage done to certain of the teeth, and forming teeth during the eruptive stage of the fever; and that the bone-necrosis and casting off of the teeth, temporary and permanent,* and their containing alveoli and

* The rule that the permanent immature tooth comes away with the temporary is not without exception. An instance of this has come under my notice since the above was written.

A little creole girl was recently sent to me by Mr. Coulson, on account of the extreme looseness of a permanent incisor tooth.

The history of the case is this:—Three years ago, being then four years old, she had scarlet fever. Immediately on her recovery, it was found that the bone, in the neighbourhood of the superior right temporary incisor, was necrosed; it became exposed, and in a few weeks the temporary tooth fell out: then, from time to time, small portions of bone came away; and this was going on till the child was nearly five years old. The

loculi is secondary and contingent upon such damage: that the *materies morbi* affects the teeth by virtue of their being members of the dermal or tegumentary system—the system upon which the poisons of the eruptive fevers spend their force, and that blighted and irretrievably destroyed, they light up in the surrounding periosteum an inflammation, which, while it is destructive, is curative—while it destroys the bone around, it affects thereby (as by that means alone it could affect) the casting off of the teeth as dead and effete organs.

Such an interpretation is consistent with—

(a.) The fact that all these cases occur after, and are always associated with the eruptive fevers:

(b.) The age of the patient when they happen—from three to six years—a time when the most active nutritional changes are going on in the teeth, and (if the blood be poisoned), a time when the most poisoned blood would be circulating in those organs:

(c.) The symmetrical character of the disease. I have met with but one or two exceptions to this rule in about twenty cases:

(d.) The fact that the necrosis is limited to just so much bone, as will liberate the temporary teeth and the immature permanent, which are shed with it. To this limit I have met with but one exception (example vi.), and that susceptible of explanation, from the exceptional circumstances attending the case: and

(e.) That it is unaccompanied by necrosis or exfoliation of any other bone of the skeleton.

Mr. J. SALTER, 1st of May, 1860.

immature permanent tooth remained; in due time it was cut with that of the opposite side; but it was excessively loose from the beginning, and always remained so, being simply attached to the surface of the gum. The left central incisor was quite firm, and fully developed. The looseness of the right incisor was an annoyance to the patient, so I removed the tooth.

The accompanying illustration represents the tooth as seen in front and behind;



a is the front view, and *b* the back. The crown of the tooth is fully and properly formed, while a little papilla, projecting up from the front of the neck, and which is deficient behind, alone represents the fang. It is clear what had happened: at the time when the child had scarlet fever, when the temporary tooth and bone were necrosed, this tooth was blighted, and, though its vitality was not destroyed, it grew no more: its pulp ceased to be a forming organ.

24. *Left knee-joint excised on account of disease, of between three and four years' duration.*

The osseous fragments exhibited originally formed the articulation of a boy, æt. $6\frac{1}{2}$. The tibia was drawn backwards and outwards, and pressure over the head of the tibia, on the outside, caused pain; an opening on either side of the ligamentum-patellæ emitted a discharge of pus, and partial ankylosis existed. I was unable to remove the whole of the diseased bone, because caries extended some way down the tibia; amputation was also objected to by the mother. Twelve months have now elapsed since I performed excision; and at the present moment the integument is sound, and the patient can flex the leg upon the thigh slightly. Query. Is mobility to be desired in these cases?

Mr. MAUNDER, 15th of May, 1860.

25. *Specimens and drawings, showing the minute structure of the articular lamella of bone.*

These preparations and drawings were laid before the Society, in consequence of a discussion upon this subject, which had occurred at a previous meeting. The articular layer was first described by Mr. Toynebee, in the "Philosophical Transactions," 1841, who, unable to force mercury through it, from the cancellous bony tissue upon which it rests, considered it destitute of tubular vacuities leading from the bone to the cartilage. Messrs. Tomes and De Morgan described it more fully in the "Philosophical Transactions," 1853; they regarded it simply as a stratum of cartilage, impregnated with earthy matter. Mr. Barwell, whose observations were recently communicated to this Society (see p. 201), describes and depicts a system of tubes, or tubular spaces running through the lamella, forming a direct communication between the bone and cartilage, and subservient to the nutrition of the latter.

My own investigations confirm the views expressed by Tomes and De Morgan. The articular lamella is a stratum of hard non-vascular tissue, the thickness of which varies from $\frac{1}{28}$ th to $\frac{1}{1300}$ th of an inch. Its upper border, continuous with the articular cartilage, has a notched outline, the depressions corresponding to the alveoli, which receive the columns of cartilage cells, the projections representing the partitions between neighbouring alveoli.

Its deep boundary-line, sharp and glassy, is very sinuous, and offshoots of the lamella sink so deeply into the true bony tissue, that in vertical sections small portions are occasionally found completely insulated.

The canaliculi of neighbouring lacunæ turn backwards, and do not run into the lamella.

The component elements of the lamella are a matrix, and certain black objects of considerable size, occurring singly or grouped, embedded in it. The matrix is either glassy or granular, and the granules are fine or coarse; they are frequently crowded, so as to form alternating strata of dark and light bands. (Plate VI., Fig. 2.) The addition of dilute hydrochloric acid to a thin section causes effervescence, the granules disappear, the matrix becomes clear, and regains the natural elasticity of articular cartilage. At the same time, it becomes apparent that the large black objects in the matrix are cartilage-capsules, enclosing clusters of secondary cells. By soaking in ether, these cells and their nuclei are rendered very conspicuous; turpentine, glycerine, and some other highly refracting fluids also bring the cells into view.

From this it appears, that the articular lamella is only a layer of cartilage, retaining its anatomical characters, but hardened by impregnation with earthy matter; and it might be reasonably expected, that before its petrification it would be liable to those changes which are common to the matrix of other hyaline cartilages. Such is really the case, for the matrix of the lamella sometimes exhibits a striation (Fig. 3) similar to that which is found in the yellow specks of the costal cartilages of old persons, where, indeed, distinct fibrillation is occasionally present. I believe that it is this striation that has been misinterpreted as evidence of a tubular structure comparable to that of dentine; but it will not bear this explanation; and its inconstancy shows that it is not essential to the nutrition of the cartilage. Though I do not admit the existence of a system of distinct tubules, I believe that the lamella is permeable by fluids, and that articular cartilage is in great part nourished by osmose across it, between the bone and cartilage.

Mr. J. W. HULKE, 15th of May, 1860.

26. *A foot showing the condition of the parts after the excision of two of the tarsal bones.*

The patient was a little child æt. 6, who was under the care of Mr. Athol Johnson, at the Hospital for Sick Children. She had two sores on the left foot, one of which, on the inner side, near the ankle-joint, led towards that joint, but did not expose any bone: the other, on the outer side, led down upon the cuboid bone, which was carious. It was judged right to make an attempt to preserve the foot by the removal of the diseased bones. Accordingly, on the 21st of December, 1859, the cuboid and external cuneiform bones were extracted, through a crucial incision. This wound healed slowly, but without any bad symptoms.

The sore, however, on the inner side, began to discharge more matter, and carious bone was felt in the situation of the astragalus. The ankle also became puffy. The foot was removed by Symes' amputation, on the 26th of April, four months after the removal of the tarsal bones. On examination, the articulating extremity of the os calcis appeared directed rather more upwards than natural. The place of the excised bones was occupied by a firm and solid band of fibrous tissue, uniting the os calcis to the last two metatarsal bones, and completely re-establishing the solidity of the foot. Below this band of fibrous tissue, and moveable upon it in the sole of the foot, was a nodule of bone about as large as a pea, and entirely surrounded by a sort of capsule of cellular tissue. From the position and mobility of this piece of bone, and from its being quite distinct from the fibrous tissue which had replaced the excised bones, it was thought more probable that it was a nodule of bone accidentally left behind at the operation than a new formation. Strumous caries was progressing actively in the tarsal bones on the inner side, especially in the astragalus and scaphoid, and the synovial membrane of the ankle-joint was tumid and vascular. The os calcis, also, was very soft.

It is interesting to observe the complete and useful repair which followed in this case, on rather an extensive excision of the tarsus, even in a foot where disease was progressing in all the bones in the neighbourhood; this holds out the strongest encouragement for adopting similar operations under more favourable circumstances. There can be little question, that ossification would ultimately have ensued in the fibrous cicatrix which replaced the removed bones, and thus the foot have become as rigidly solid as before the operation, if not more so; but neither the situation of the nodule of bone above referred to, nor the time elapsed since the operation, justifies us in looking on it as the commencement of this process. I say that there can be little question of the ultimate occurrence of ossification, since I believe, that in almost all these cases of extirpation of bones extensively diseased, a great part, if not the whole of the periosteum is usually left behind. That this was absolutely the case in the instance before us, I cannot say, since, though I was present and assisted at the operation, circumstances prevented me from making a minute examination of the bones removed, but I have little doubt of it. Wagner's researches on this subject (in his *Treatise* lately translated for the New Sydenham Society), seem to prove, that when bones are extirpated with their periosteum, this place is occupied by a fibrous cicatrix only (see pp. 135 and 199); while, if the periosteum be left behind, the bone is more or less completely reproduced.

Mr. T. HOLMES, 15th of *May*, 1860.

27. *Bones from a case of spontaneous fracture.*

The patient, a woman *æt.* 52, had had (as it turned out afterwards), a scirrhus tumour in the right mamma for upwards of thirty years. This, however, she carefully concealed while in the Hospital, from the fear of an operation, and was admitted, in October, 1859, as a physician's patient, complaining of pain in the region of the left hip, to which she said she had been subject for three years. It was at first supposed to be rheumatic, and mercury was given until her gums were affected. As, however, she continued to get worse, the surgeon was requested to see her on the 22nd of November, and on his manipulating the thigh, for the purpose of examination, it gave way, and the lower fragment started up almost under the skin. She then gave some obscure history of having been attacked with rigors, and noticing a tumour in the groin a few days before, while walking about the ward. She was now transferred to the surgical wards, and placed upon Earle's bedstead. A belladonna plaster was applied to the thigh, as she complained of pain in it. In the following February she complained of pain in the left side, and, on examination, crepitus was felt in several ribs: and it was on making this examination that the tumour (a small, hard, puckered mass of scirrhus) was found in the breast. Several tubercles, also, of the same nature, were scattered about in the surrounding skin. Afterwards other ribs, on the right side, appeared moveable. She sank gradually, and died on the 22nd of February, exactly three months after the fracture of the femur.

The bones exhibited were the left femur and a few of the lower ribs on the right side. The former had been fractured about two inches below the lower trochanter, and its fragments were very irregularly consolidated. The upper fragment pointed outwards and forwards, so as to ride in front of the lower. Between the two, and at the posterior aspect of the bone, was a large mass of new bone, a portion of which had so regular a rounded outline, and was so directly in a line with the circumference of the lower fragment, as to suggest the idea that it was a third small comminuted fragment, which had become consolidated with the callus thrown out to repair the fracture. The whole of this callus formed a somewhat cylindrical mass of bone, lying horizontally, so as to make a right angle with the lower fragment. It consisted of bony fibres, most of them running transversely, closely invested by the periosteum, large fragments of which might be traced in between them. The callus was more firmly adherent to the upper fragment, on which only very slight movement was possible. The lower fragment was firmly united to it by fibrous tissue, which allowed of more obvious, but still only very limited movement. The medullary cavity of the

upper fragment projected out beyond the upper end of the lower, and was completely closed by a dense layer of fibrous tissue. Numerous deposits of a hard white substance, of the consistence of fibro-cartilage, were found in the bone, lying immediately under the periosteum. Three of them were situated in the upper fragment, and, when removed, left deep pits in the bone. Another was found in the lower fragment, immediately below the seat of fracture, and had, no doubt, occasioned the giving way of the bone. It was about the size of a nut, and seemed to occupy more than half the thickness of the shaft. The lower fragment seemed otherwise quite healthy, and the removal of its periosteum exposed a smooth hard surface; while the surface of the upper fragment was soft and worm-eaten, from the presence of numerous minute deposits of similar substance to the above. Numerous soft deposits, exactly similar to those above described, were found in the ribs on both sides. In several places they had no fracture; in others the ribs were so attenuated as to give way on the slightest force; in others, again, the bone had been replaced for some distance by the soft material, forming a tough flexible cord, in which small nodules of bone might still be found embedded. These several conditions were displayed in the ribs exhibited. The parietal pleura could everywhere be separated from the morbid deposit, even where the latter was most extensive, though in these situations it was rather firmly adherent, and where the deposit was not in large quantities, it was easy to raise the periosteum from it, and that membrane appeared natural.

Examined by the microscope, the deposit, both in the ribs and femur, displayed a structure almost exclusively fibrous, numerous nuclei being, in some places, scattered in amongst the fibres; but no cells of any peculiar appearance were found, nor did the deposits yield any juice when squeezed or scraped.

There was a scirrhus tumour in the right breast, which, on examination, was found to be deeply seated, with processes passing into the substance of the gland. It was of small size, about as large as a walnut, and gave out, under pressure, a creamy juice, which exhibited a great number of small nuclei under the microscope.

These preparations were exhibited principally with a view of showing the possibility of union of spontaneous fracture, even when the fracture is the result of malignant disease of the bone itself. The copious deposition of bone under the periosteum in this case, and the near approach which had been made to complete consolidation, seem to leave little doubt, that the fracture would have been firmly united had the patient lived a short time longer. The union would, of course, have been insecure, since the new bone, equally with the old, might have yielded to the absorption produced by the growth of the malignant

disease, had that disease resumed its activity. At present, however, everything seemed to show that this disease was in a state of quiescence in the neighbourhood of the fracture, and was making active progress only in the ribs. It may, therefore, be fairly concluded from this circumstance, that union is possible in spontaneous fracture, even when caused by malignant deposit, although, of course, the cases in which it actually occurs must be exceedingly rare. Another point illustrated by this specimen, is the connection between malignant disease of the bones and the conditions known as *fragilitas* and *mollities ossium*. This was shown in the ribs, portions of which were so flexible as to come clearly under the latter designation, and to afford a good instance of that form of *mollities* which results from a diffused deposit of cancer. The length of time which had elapsed between the first onset of the disease in the breast and the manifestation of constitutional affection, by the commencement of pain in the bones, is also a point of much interest.

Mr. T. HOLMES, 15th of May, 1860.

VII.—DISEASES, ETC., OF THE ORGANS OF SPECIAL SENSE.

1. *Deposit, probably gouty* (?), *in the ossicles of the ear.*

These were taken from a patient who had had attacks of gout in the extremities, and also distinct gouty affection of the ear with neuralgia and deafness. There were also deposits in the helix on both sides. There was marked evidence during life of ankylosis of the ossicles of the ear.

A second specimen, the temporal bone, was taken from a patient who had died from rheumatic arthritis, affecting the body generally. The bone had become completely changed in its structure, having an ivory-like deposit, probably gouty, scattered throughout its general texture. The patient had been deaf for years.

Dr. GIBB for Mr. HARVEY, 6th of December, 1859.

2. *Stricture of the Eustachian tube.*

N. S., æt. 80, died on the 1st of December, 1859, with serous apoplexy. Previous to death he was so deaf on the right side as to require to be spoken to loud near to the ear. The hearing power of the left ear was dull; the amount of hearing varied considerably from day to day.

Dissection of the right ear.—Meatus externus natural. Membrana tympani, externally more concave than ordinary, shining, flaccid, and of a

leadens hue. Eustachian tube, explored from its faucial orifice towards the tympanic cavity, found to be perfectly natural, until it arrived at a distance of half-an-inch from the latter, and at this point the lower osseous wall was observed to extend upwards, and so to encroach upon the cavity of the tube, that the calibre of the canal was so narrowed as not to admit the passage of an ordinary sized pin, but of a bristle only. This constricted portion was about one-third of an inch in length, beyond which the tube suddenly assumed its ordinary size, and was indeed somewhat larger than natural. The tympanic cavity contained more mucus than it should, and it was very fluid. The mucous membrane was very vascular.

Left ear.—The Eustachian tube at the part corresponding to the stricture in the right ear was only half its normal size. The tympanic cavity contained mucus, and the mucous membrane was red and congested.

Mr. TOYNBEE, 6th of December, 1859.

3. *Blood and cholestearine in the tympanic cavity.*

W. A., æt. 35, a blacksmith, applied for relief in April, 1849. He stated, that four years previously he observed that he was losing the power of his right arm and leg, but after treatment by a medical man, he so far recovered as to be able to go about his work again. Two years ago while at work he found himself suddenly deprived of the power of his left side. He was under medical treatment for eight months, and he considerably improved, but not sufficiently to enable him to follow his business. For the last fourteen months he had been getting gradually worse, so that at the period in question, viz., April, 1849, he had much difficulty in standing alone. He remained in the same state, being in tolerable health, till the 21st of May, 1858, when he suddenly lost the use of the right hand and arm, the attack being accompanied by vertigo and dimness of vision. The pulse was slow and feeble, pupils dilated. He was unable to protrude his tongue, or to articulate without some difficulty. He could not hold up his head. He regained the use of the right arm, but he passed his fæces and urine involuntarily. He suffered from an attack of bronchitis and lingered till the 6th of November, 1859.

Post-mortem examination, thirty hours after death. Body extremely emaciated. Skull very thick and dense. Brain bloodless and preternaturally firm, convolutions well marked, and the sulci between them deep. In the substance of the right hemisphere anterior to the optic thalamus was found a rounded mass somewhat larger than a pea, harder than the surrounding cerebral matter and semi-transparent. A

similar mass was also found posterior to the corpus striatum. All the viscera were healthy.

Dissection of the right ear.—The meatus externus was much dilated by a large mass of cerumen, which had pressed inwards the posterior half of the membrana tympani. The cavity of the tympanum was nearly full of fluid and coagulated blood, and of large quantities of cholestearine. These matters were confined to the tympanum by the occlusion of the Eustachian tube.

Mr. TOYNBEE, 6th of December, 1859.

4. *Exostosis of the tympanic ossicles.*

H. B., æt. 80, died on the 25th of November, 1859, of serous apoplexy. At the time of his death he was so deaf as to require to be spoken to loud, near to his head.

Post-mortem examination.—The brain was firm, except that the centres of the corpora striata and cerebral peduncles were soft, and of a brownish-yellow colour. There was considerable sub-arachnoid effusion.

Right ear.—Meatus externus healthy. The outer surface of the membrana tympani presented no appearance of the long process of the malleus; but at its upper and posterior part it was white, from the presence of some white mass in the tympanic cavity. Upon exposing the cavity of the tympanum, a hard bony mass, about the size of a grain of wheat, was observed to occupy its central part. This mass of bone surrounded the neck of the stapes, which seemed blended with it, and occupied the position of the long processes of the incus and the malleus, both of which had wholly disappeared: in the place usually occupied by the bodies of the malleus and incus was observed another mass of bone, half the size of the former, and firmly ankylosed to the walls of the mastoid cells. There was also a very small exostosis on the anterior crus of the stapes.

Mr. TOYNBEE, 6th of December, 1859.

5. *Necrosis of the petrous bone.*

The meatus externus contained purulent matter. At its upper part, near the inner extremity, was a small polypus, about the size of a millet-seed. The membrana tympani was absent. The mucous membrane of the tympanum was very thick and red. The malleus and incus were absent, and all that remained of the stapes was the base and a portion of the anterior crus. The remains of the stapes were buried in a deep fossa formed by new bone, which was effused on the inner wall of the tympanum. The upper surface of the petrous bone was composed of

newly-formed osseous matter. In this new bone were observed two orifices, through which a large portion of necrosed bone could be discerned.

The lower wall of the tympanum presented a carious orifice, which communicated with the fossa jugularis.

Mr. TOYNBEE, 20th of December, 1859.

6. *Dissection of the ears of a young woman who was deaf and dumb.*

The patient, who had been deaf and dumb all her life, died of tubercular inflammation of the brain.

Dissection of right ear.—The membrana tympani was absent. The mucous membrane of the tympanum was red, and of extreme thickness, so that it filled the whole of the tympanic cavity and concealed the stapes. Its vessels were distended with dark blood.

Upon making a section of the petrous bone, it was found to be much more hard than natural. The cochlea, both to the naked eye and to microscopic examination, had a natural appearance, excepting that portion of the lamina spiralis which is situated directly above the membrana fenestræ rotundæ. This lamina, instead of being composed of a delicate and membranous osseous septum, was represented by a dense mass of bone which wholly filled the tympanic extremity of the scala tympani, and concealed the membrana fenestræ rotundæ, which was, however, visible from the tympanum, where it had a natural aspect. The semicircular canals contained more otoconia than was natural.

Left ear.—The membrana tympani was absent. The tympanic cavity was full of thick mucous membrane, of a dark-red colour, which entirely concealed the stapes. The portio mollis nerve appeared to be perfectly healthy. The semicircular canals contained more otoconia than natural, and especially the posterior one, which was completely distended by a mass of crystals for the length of half-a-line. The lamina spiralis of the cochlea was of a deep-red colour throughout, and blood was effused in each scala. The lamina spiralis, on approaching the vestibule, was hypertrophied and dense, as in the right ear.

Mr. TOYNBEE, 20th of December, 1859.

7. *Necrosis of the petrous bone.*

S. S., æt. 20, had suffered from a discharge from her ears from early infancy. She, however, was not so totally or permanently deaf but that she learned to talk. About ten months ago, she had a "polypus" removed from the left meatus, which had grown to such a size as to

project externally. She heard better after the operation; but the pain which she had always suffered from, became much more severe. It was intense at times. She was admitted into the Sussex County Hospital, with continued fever, and made a good recovery. She was shortly about to be discharged, when headach and coma set in, and she died in two or three days.

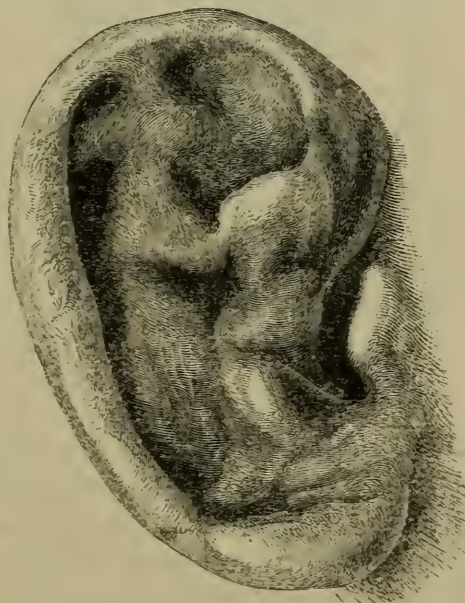
Post-mortem examination.—Softening of the dura mater over the left petrous bone was found, with abscess in the fourth ventricle; also serous effusion into, with inflammatory congestion and softening of, the walls of the lateral ventricles. The pia mater, investing the cerebellum and the base of the brain, and extending down into the spinal canal, was infiltrated with pus.

Mr. TOYNBEE, 20th of December, 1859.

8. *Ossification of the external ears, following hæmatoma.*

The patient from whom the ears were removed, æt. 34, had been in a lunatic asylum for three years previous to his death, suffering from acute dementia. About a year after his admission, the right ear was observed to be congested; the cartilage became thick, and lost its natural elasticity. The medical attendant has no doubt that the ear has not been subjected to any physical injury. By degrees the right ear enlarged (Woodcut 19), became of a dark-blue colour, and evidently

WOODCUT 19.



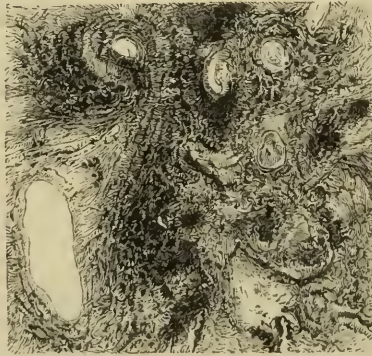
Represents the greatly enlarged and thickened condition of the external ear.

contained fluid. Three months after the effusion, the fluid began to disappear, and the ear diminished in size, entering upon what has been called the cystic stage of the disease: it subsequently hardened and shrivelled up. Two months prior to his death, the *left* ear, although retaining its natural size, showed signs of congestion and induration. The patient died in December, 1859, with symptoms of general paralysis.

Dissection.—The *right* ear was so very much thickened as to have lost its normal appearance. The only portions of cartilage which were not greatly thickened were the tragus and the thin narrow strip at the posterior margin, forming the helix.

Upon making a section of the cartilage, it was found in some places half-an-inch in thickness, but not harder than natural. This thick part of the cartilage did not present any appearance of a cyst, and, under the microscope, was observed to consist of hypertrophied cartilage-cells and intercellular matter. In some parts, the cartilage was converted into true bone, containing Haversian canals and well-defined bone-cells. (Woodcut 20.) This ossific matter was also found in

WOODCUT 20.



Represents the microscopic appearance of the adventitious bone-structure.

the *left* ear, which was scarcely at all disfigured, and had not passed through the cystic stage of the disease.

MR. TOYNBEE, 17th of January, 1860.

9. *Mass of true bone removed from the human eye.*

An engine-driver, *æt.* 52, thirty years since received an injury which destroyed the cornea of the right eye; it was nebulous and marked by cicatrices, and the globe was slightly atrophied; no inconvenience had been produced beyond the loss of sight, until about three years ago, when the conjunctiva became inflamed, and the general structures of the eye

painful, the treatment used having produced no relief, he became a patient at the St. Marylebone Eye Institution where the eye was removed by operation. On dissection, a cup-shaped deposit of bone was found lying between the retina and choroid, having its centre perforated by a circular opening throughout which passed the retina and its artery; the vitreous humour was in its normal quantity, the lens converted into calcareous deposit. The accompanying microscopic drawing shows the

WOODCUT 21.



Represents the microscopic appearance of the adventitious bony formation, magnified 150 diameters.

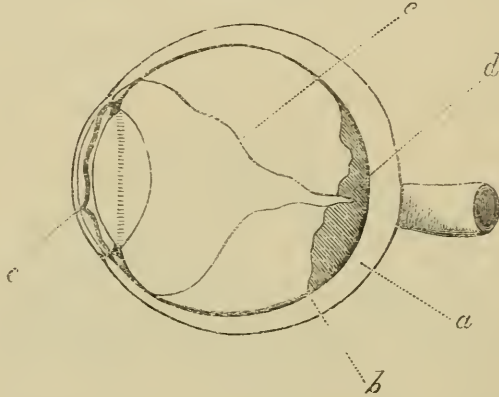
deposit to be composed of the true elements of bone. The Haversian canals and bone lacunæ being perfect.

MR. OBRÉ, 17th of January, 1860.

Report on the above specimen.—The bony mass, which had the shape of a small thick cup moulded upon the inner surface of the fundus of the eyeball, contains well-formed lacunæ and canaliculi, as well as vascular canals, but the osseous tissue around the latter, has no regular concentric lamellation. The shape and dimensions of the hole in the bottom of the cup nearly correspond to those of the foramen opticum, at the inner surface of the fundus. Shreds of withered choroid are still adherent to the outer surface of the cup; and portions of the elastic lamina (which supports the hexagonal epithelium), and of the choroïdal stroma were distinctly recognized. The edge of the cup consists of an open net of bone continuous with, and growing into a stroma of fibroid tissue; and the inner surface is coated by a similar

fibroïd investment. On carefully examining the eyeball (from which the bone had been removed before this preparation was submitted to us) under water, (Woodcut 22) a small portion of choroïd was found en-

WOODCUT 22.

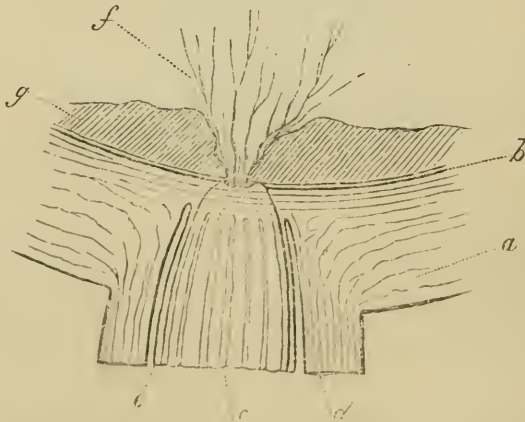


Represents, in diagram, an antero-posterior section of the eyeball, slightly to one side of the optic nerve.

- a.* Greatly thickened sclerotic. *b* Choroïd. *c.* Coarcted retina.
d. Bony cup. *e.* Synechia anterior.

circling the foramen opticum, and a long tuft of retinal vessels (Woodcut 23.) was discovered continuous with those of the optic nerve.

WOODCUT 23.



Represents a diagrammatic section through the entrance of the optic nerve.

- a.* Sclerotic. *b.* Choroïd. *c.* Optic nerve. *d.* Outer part of sheath.
e. Inner division of sheath. *f.* The retinal vessels. *g.* Position of bone.

These facts demonstrate this specimen to be an example of the ossification of adventitious fibroïd tissue lining the inner surface of

the choroid. The retina had doubtless been thrown inwards, towards the axis of the globe, remaining attached only along the line of the ova serrata in front, and posteriorly, passing through the hole in the bony cup to the optic foramen.

The lens was chalky; the iris tied to a scar in the cornea; and the sclerotic was greatly thickened.

These cases are by no means of infrequent occurrence. Two are recorded (by Mr. Hulke,) in the 8th vol. of the "Transactions," and the 6th vol. contains the notice by Dr. Taylor, of a similar preparation given to him by Dr. Kirk; but in this instance, the coarcted retina occupying the axis of the globe was mistaken for the hyaloid canal, and the bony spicules, erroneously figured as from the vitreous humour, really occurred between the retina and the choroid.

Most of these ossifications have their origin in inflammation of the choroid, the inner surface of which becomes coated with lymph, which in some instances is so abundant, as to fill the back of the globe. The lymph is converted into fibroid tissue which lastly undergoes ossification, the bone first appearing on the outer or choroïdal aspect of the fibroid mass.

Mr. TOYNBEE and Mr. HULKE, 7th of February, 1860.

10. *A case of deafness in which the otoconia (collection of ear crystals) was more abundant than natural.*

The patient was a man, æt. 68, who died of apoplexy; five years previous to his death, he had an attack of apoplexy. Since the attack of paralysis, he became so deaf, that he required to be spoken to loud close to him.

Post-mortem examination.—The right cerebral hemisphere was much softened, especially at its centre, the corpus striatum being broken down. A recent clot was found in the the third ventricle.

In the cavity of the vestibule in each ear, the otoconia was much more abundant than natural. The crystals were not only aggregated together, forming larger masses than natural, but they were interspersed over the whole surface of the membranous labyrinth, occupying small cellular cavities.

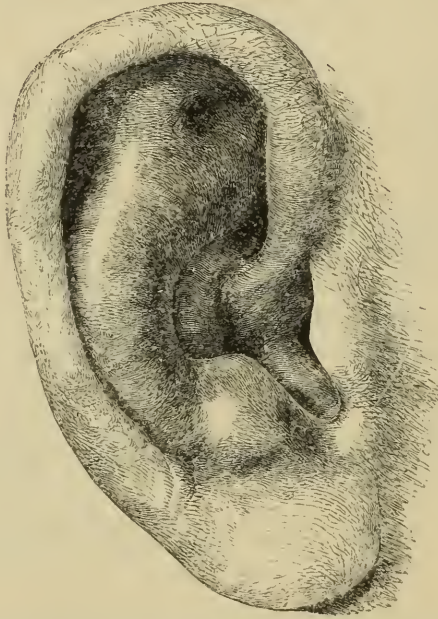
Mr. TOYNBEE, 3rd of April, 1860.

11. *Case of hæmatoma of the external ear.*

The preparation was taken from a man, æt. 40, who was affected with the peculiar disease called general paralysis, or the paralysis of the insane; the mental affection assumed the form of imbecility at first, and gradually degenerated into dementia. The right ear had been gra-

dually swelling for a considerable period, and about a fortnight before the death of the patient it was nearly double its natural size. (Wood-

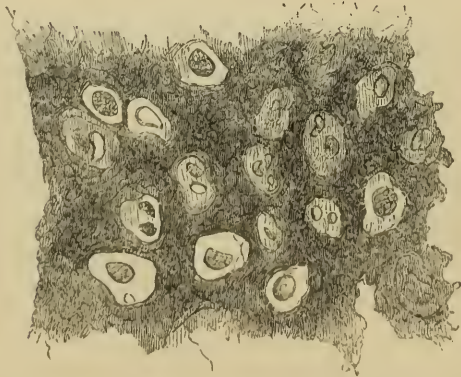
WOODCUT 24.



Represents the right ear in its enlarged and tumid condition.

cut 24.) Ten days, however, previous to his death, the size of the ear gradually decreased, a circumstance far from being uncommon. Upon

WOODCUT 25.



Represents the enlarged cartilage-cells and hypertrophied intercellular substance.

making a post-mortem examination, the calvaria was found to be thick, heavy and close in texture, the dura mater adhered to the bone more

firmly than natural. There was much opacity of the arachnoid, and, the pia mater was congested, and with difficulty detached from the surface of the convolutions. The cineritious substance was pale and soft, the medullary substance very firm. Much serum was effused in the ventricles, also between the tentorium and the cerebellum, and at the base of the cerebrum.

Upon examining the ear, the cartilage was found of a darker colour than natural, and it was much expanded and soft. Upon submitting portions of the hypertrophied cartilage to microscopic examination, the cells and the intercellular tissue were observed to be much expanded (Woodcut 25), and the dark colour of the cartilage appeared to depend upon a deeply-coloured serum effused in the intercellular membrane.

Mr. TOYNBEE, 1st of May, 1860.

VIII.—TUMOURS, CYSTS, ENLARGED LYMPHATIC GLANDS, ETC.

1. *Fibrous tumour removed by operation from the side of the face.*

Mr. Holmes, exhibited for Mr. J. A. Blagden, of Petworth, a large fibrous tumour, weighing when fresh two pounds and a half, which had been successfully removed by the latter gentleman from the side of the face. The patient was a labouring man in good health, and the tumour had been growing slowly for fourteen years. He had been a patient of a Metropolitan Hospital, where the surgeon declined to remove the tumour. Its base was very broad, and was at one time, firmly attached to the parts beneath, and extended from the meatus auditorius externus down to the base of the jaw. After the persevering use of pressure externally, the attachment of the tumour to the parts below became relaxed, so that, it was possible to push the hand below the tumour. It was then removed with the knife, with little hæmorrhage. The patient made a rapid recovery.

The substance of the tumour was found to consist, in all the parts examined, of fibrous tissue with a few nuclei. Its surface was indented with depressions and cicatrices, the result of the applications of caustics and irritants at various times to the tumour.

The case was reported as showing the good effects of the careful and judicious application of pressure in loosening the attachment of tumours, and in some situations, to the adjacent parts, and thus rendering evident the practicability of their removal. This tumour had been supposed to be connected with the bone, and the patient had been subjected to the annoyance of various caustic applications, and had been even

refused the relief of operation by the staff of a London Hospital. Yet by stretching the neck of the tumour, Mr. Blagden was enabled to get his fingers to meet under the base of the diseased growth, and finally to remove it by a very simple and successful operation. The case also shows with what impunity these hard, innocent, and, therefore little vascular, tumours may be operated upon, even when of very large size.

Mr. HOLMES, 18th of October, 1859.

2. *Myeloid growth on the frontal bone of an infant.*

W. H. H., aged eleven months came under the care of Mr. Birkett, in Guy's Hospital, the 27th of June, 1859. He was a healthy-looking, though somewhat delicate child, and had a large tumour occupying the right frontal region. All round its base it felt very hard, and a distinct bony cup or rim could be felt. The parts most distant from the skull were softer but very resisting, giving the impression that the disease might be enchondroma. The mother said, that the disease began as a "small lump" when the infant was two months old, and it must then have corresponded to the right frontal eminence or centre of ossification. For a few months it increased very slowly, but the last two months it made rapid progress. An exploring needle was introduced, but only blood escaped. On the 5th of July, Mr. Birkett made a vertical incision through the integuments over the centre of the growth, and exposed the new tissue which was circumscribed by a delicate fibrous envelope. It had a dark, dull purplish colour, and resembled exactly the outside of the myeloid growths from bone. After careful examination, but with very slight interference with the growth itself, it was regarded as inexpedient to cut into the growth, fearing that the frontal bone might be destroyed to an extent corresponding with the base of the tumour (about three inches), and so the brain might be exposed. The edges of the incision were placed in contact and they subsequently partly healed. The infant was removed from the Hospital, and fourteen days after the operation, the integuments and whole mass of the tumour became inflamed, gangrene of the growth ensued, and with all the signs of meningeal inflammation, the child died in a week or twenty-one days after the exploration of the tumour.

Post-mortem examination.—The entire mass was gangrenous, and formed a soft semi-fluid material easily washed away with water running over it when the integuments were peeled off. When this was done a bony ring remained marking the base of the growth, and forming a part of the external surface of the frontal bone. The diameter of this ring measured about three inches. The superficies enclosed by

this ring of bone was rough, stained with blood, and had, growing from its surface, delicate acicular processes of bone in length corresponding with the projection of the growth. In the centre the bone was soft and easily broken through with slight pressure. At this spot the inflammatory action had penetrated to the meninges and induced arachnitis, the evidence of which was purulent effusion. The rest of the bone was very hard. The disease extended along about three-quarters of an inch of the roof of the right orbit.

Thus, although the examination after death revealed the practicability of removing the growth without interfering much with the brain, the expediency of leaving it in *statu quo* was also demonstrated.

Mr. BIRKETT, 18th of October, 1859.

3. *Polypoid growth on the soft palate.*

J. H., æt. 34, was admitted into Guy's Hospital, October, 1859. About two months previously, as his wife was accidentally looking into his mouth, she observed a red mass growing from the soft palate. It was then very nearly as large as at this moment. He enjoyed good health, and was by trade a shipwright.

Upon the anterior surface of the velum pendulum palati, directly in the centre, and occupying about half its superficies was a lobulated, warty-looking growth of a red colour, and somewhat gelatinous aspect. As it hung downwards, it obstructed the view of the uvula entirely, as well as the lateral palatine arches. It was pedunculated, that is, the base of attachment was much narrower and smaller than the body of the growth, and each lobule seemed to have its distinct peduncle, which produced a pear-shaped outline. The lobules were very easily pulled off, and some of them seemed to be congested with blood.

I excised the growth, and the operation was attended with very little bleeding. The base of the growth was about three-quarters of an inch in diameter and circular. The integrity of the soft palate was not in any way interfered with by the operation, which scarcely gave any pain. The minute elements of the new growth were fibres, and a few nucleated cells. I could not find any cells resembling those usually found in carcinoma. Each lobule was covered with epithelium, and seemed to possess a proper and well-defined vascular supply. He left the Hospital with only a slight trace of the new growth in its original site. Thus far the details of the case were given at the meeting. The patient continued in good health, and was not inconvenienced with the primary disease, although the soft palate was not at any time perfectly free from the growth, for there always remained a surface half-an-inch in diameter, covered with papillæ like a soft wart.

In January, 1860, the man returned to Guy's Hospital. Then, the palatine growth appeared like a soft wart, but on the right side of the neck in the fossa behind the angle of the lower jaw, there was a hard nodule resembling an indurated lymphatic gland. This had been observed about one month. Various escharotics were applied to the palatine growth, and the increase was thereby arrested. The cervical tumour slowly enlarged, became very painful, soft and elastic, even almost to produce fluctuation. An exploring puncture was made, but only blood came forth. In this condition he left the Hospital, and through the kindness of his medical attendant, I am enabled to give the termination of this most interesting case.

The polypus on the palate increased very rapidly, and before his death it attained a larger size than when I first removed it. It caused great difficulty in swallowing, and at last sloughed to some extent. The cervical tumour did not increase until about three weeks before his death, when it caused, from its large size, great distress and pressure on the surrounding parts. It did not, however, ulcerate. The man died on the 25th of April, 1860, sinking rapidly at last into a state of delirium. A post-mortem examination was not permitted.

To recapitulate briefly the chief facts of the case :—

1. The man was only 34 years old when the disease was developed, and apparently in robust health.
2. The disease had been observed only two months when removed, at which time there was not any enlargement of the lymphatic glands.
3. The lymphatic glands began to sympathize about four months after the observation of the growth, and two months after the first excision, and soon assumed all the characters of secondary carcinoma implicating these organs.
4. The primary disease never showed the ordinary external appearances of carcinoma, nor did its minute structure show the elements commonly found in that disease.
5. The man died in about nine months after the observation of the primary growth.

In this most interesting and remarkable case it cannot be denied, that we have all the characteristics of carcinoma displayed. I ventured to indulge the hope, that the primary disease was not cancer, and expressed an opinion to that effect at the meeting. I believe I was justified in doing so from the history of the case, and the minute examination of the growth, and although the subsequent progress of the case has proved the incorrectness of the diagnosis, I think the case well worthy of record. I believe, that this is the first recorded case in which a true polypus-like growth has been followed by carcinomatous degeneration of the lymphatic glands. In all the cases of these growths

developed in relation with mucous membranes, which I have yet seen, the lymphatic glands have been perfectly free from every trace of secondary disease. It cannot be said, even in this case, that the primary disease was carcinoma, but the fact is, nevertheless, fully established that a patient may have a polypoid, warty-looking growth developed in relation with a mucous membrane, and that the lymphatic glands in the vicinity may become the site of carcinomatous degeneration. The record of similar cases is very desirable.

Mr. BIRKETT, 18th of October, 1859.

4. *Cancerous tumour of the hand in a child.*

A. C., aged one year and ten months, was sent up from Ramsgate by Mr. Ayres, and admitted under my care at Guy's Hospital. He was a healthy-looking, and well-made child, and did not appear to be suffering from any constitutional disorder.

His right hand presented a tumour the size of an orange, projecting both upon its dorsal and palmar aspect, evidently involving the metacarpal bones; the thumb and fingers were quite free, although flexed from the extension of the tendons by the projecting growth.

The mother stated, that the hand had been enlarging for about one year, and believed that it had commenced in the integuments.

The mother could assign no cause for the growth, but her maternal grand-parents had both died from cancer. The tumour was of a firm consistence, and of a regular outline, and its examination gave little pain. There was no glandular enlargement. Upon the 20th of September, I amputated the hand in the forearm, and the child rapidly convalesced.

Upon making a vertical section of the tumour, it was found to have sprung from the metacarpal bones; all seemed equally to have been involved in the disease, and to have entirely lost their original outline. Spicula of bone could be detected in the growth, but no signs of the bones themselves.

The growth was bounded by a dense fascia, and its outline was quite distinct; the flexor and extensor tendons were uninvolved, both passing over the new growth. Microscopically, all the characters of the medullary form of cancer were clearly seen, but of the firmer description.

Mr. BRYANT, 1st of November, 1859.

5. *Extensive medullary tumour of the right femur.*

A young lady, æt. 20, of sanguine-lymphatic temperament, came under the care of Dr. Daldy in May last, complaining of general want of power and a pain in the right knee. She had enjoyed good health

up to the period of five months before she consulted Dr. Daldy, when an attack of scarlet fever was followed by a slight but frequent cough, sub-acute conjunctivitis, a feebleness of circulation, as evidenced by extreme coldness of the extremities at night, and the supervention of the pain alluded to, which was localized in the inner condyle of the femur, was looked on as rheumatic, and could not be referred to any direct injury. The pain, however, became much increased shortly after, in consequence of the patient having slipped down three or four stairs, and slidden on her coccyx.

Dr. Daldy and Mr. Ward found that the pain in the femur was limited to an area in the anterior and inner part of the internal condyle, slightly larger than that of a shilling. The leg was semiflexed on the thigh, and attempts to straighten the limb brought on this pain, which otherwise was not complained of, except when pressure was made, or the limb jerked. The joint felt somewhat hot, and there was slight effusion in its synovial sac. Strips of linen were applied to the joint, moist, and covered with oiled-silk, and the parts kept quiet by a gutta percha splint and wet roller. In about a week, the sub-acute symptoms had subsided, and the pain in the condyle, on pressure, had become less. Scott's dressing was then substituted for the warm-water applications. In about six or seven days, although the strips of plaister had been applied without the slightest tension having been exerted, œdema of the leg had supervened, and the bandages felt tight and unyielding. These were immediately removed. The knee-joint had much increased in size, and the local symptoms had become aggravated. This increase in the size of the joint went on very rapidly, and it soon became evident that some form of malignant disease was, in all probability, in rapid progress, for, in a few weeks, the outline and form of the articulation were merged in a large tumour, extending upwards to the lower fourth of the thigh. The skin over it was tense and shining, and permeated by large congested superficial veins: it was unequally dense, and elastic on pressure, and here and there fluctuation could be detected. The question as to the propriety of amputating at the hip-joint was gone into by Dr. Daldy, Mr. Adams, and Mr. Ward, about this time; but it was not thought prudent to interfere with the limb. The patient died from exhaustion in the beginning of October, between five and six months after the first indications of the disease. Shortly before death, several slight attacks of hæmorrhage had occurred from the back part of the tumour, which had then acquired enormous dimensions, measuring two feet eight inches in the most prominent part of its circumference, and extending upwards to the middle of the thigh. The femur had given way at the lower fourth during its growth.

On the *post-mortem examination*, a few hours after death, a vertical incision was made through the tumour, and a large quantity of dark fluid blood escaped from a number of cysts of various sizes, whose walls were occupied with ragged fibrin. These cysts were larger towards the circumference than towards the centre of the growth. The remainder of the tumour was made up of medullary sarcoma and fibrinous deposit, and masses of bone. It had evidently arisen from the cancellated tissue of the femur, in the region of the inner condyle. The periosteum could be traced over part of the swelling, superiorly. The lower fourth of the femur was represented by part of the growth; and in the medullary structure of the shaft, just above the part at which the femur merged in the general mass of the disease, a similar morbid deposit to that constituting the bulk of the swelling was found, and this was mixed up with myeloid deposit. The cartilages of the femur were intact.

Both lungs were permeated by masses of malignant deposit, similar in their microscopic characters to those of the femoral tumour.

Mr. N. WARD, 15th of November, 1859.

6. *Sanguineous cyst from the shoulder.*

The specimen was removed by Mr. De Morgan, from the shoulder of a gentleman æt. 47.

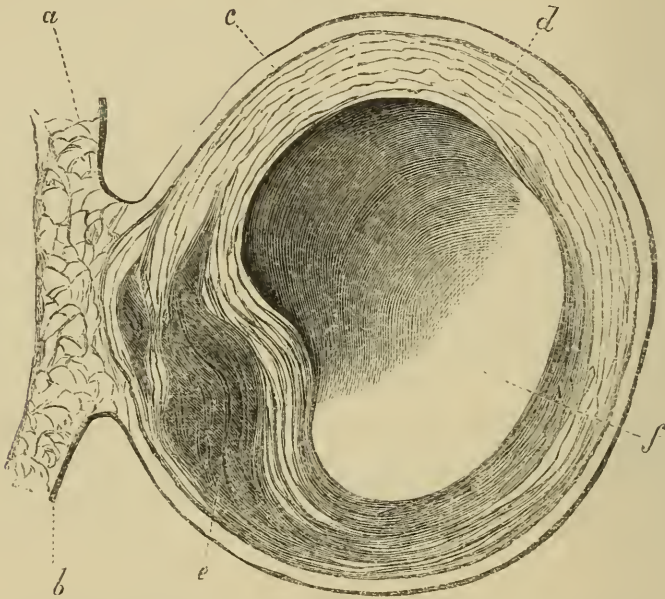
It had been growing for eight years. When first observed, it was a small tumour beneath the skin, just above the spine of the scapula, and presented a bluish colour.

It slowly and gradually increased in size, and never gave rise to pain, being inconvenient only on account of its size and position.

At the time of removal it was about as large as the closed fist, spherical in form, and attached by a narrow pedicle, an inch and a-half in diameter. The skin covering it seemed thin, and had a bluish tinge; and there was an indistinct feeling of fluctuation in the tumour. On making a section of it after removal (the operation merely consisted in dividing the pedicle), a dark, brownish-red fluid, which contained a large quantity of cholestearine plates escaped from the interior. Beneath the thin cuticular covering was a delicate cyst-wall, which, except at the pedicle, adhered with tolerable closeness to the skin, although, with care, they could be separated. Within this was a layer about three-quarters of an inch thick, of firm fibrinous coagulum, having a laminated arrangement, very similar to that often seen within the cavity of an aneurysm, or an hæmatocele. In some parts, more recent, darker-coloured, and non-laminated coagula of blood, poured out from the cyst-wall, and raised up some of the layers (see Woodcut 26). The in-

terior cavity, when first opened, appeared to be lined by a membrane having the brilliancy of the finest satin,—it was even compared by

WOODCUT 26.



Represents the tumour in section, one half the natural size.

a. Superficial fascia and fat. *b.* Skin. *c.* Cyst-wall. *d.* Laminated blood-coagulum. *e.* More recent amorphous blood-coagulum. *f.* Cavity containing fluid.

some who saw it to the tapetum lucidum of the choroid of the ox. On examining this microscopically, the appearance was found to be due to a thick layer of pure cholestearine deposited upon the interior surface of the cavity. After keeping the preparation in spirit, this brilliant appearance was entirely lost.

I should suppose that this tumour commenced its growth as a simple cyst, situated in the sub-cutaneous cellular tissue, and that from time to time blood was poured into its cavity from vessels in the cyst-wall. There was no history of any blow or other injury, or sudden enlargement of the tumour, so it is probable that the hæmorrhage into it was gradual, and may have taken place very early, as the bluish colour of the tumour, when first observed, would seem to indicate.

The presence of cholestearine in blood tumours is not an unusual occurrence; but in this case the quantity of this substance was remarkably great.

Mr. W. H. FLOWER, 15th of November, 1859.

7. *Cancerous masses in the anterior mediastinum and in the kidneys.*

G. M., æt. 24, a warehouseman at a brass foundry, was admitted under my care into King's College Hospital, on the 14th of November. He said, that for two months before his admission, he had suffered from loss of appetite and debility; but he dated the commencement of his actual illness from the 5th of November, when he began to suffer from pain in the head and giddiness. He also complained of pain in the limbs, chest, and belly, nausea after taking solid food, and an occasional severe aching pain in the left loin. At the time of his admission, he had a sallow anæmic appearance, slight febrile heat of skin; pulse, 100; respiration, 20. The tongue was slightly coated, there was no tenderness of the abdomen, the bowels were confined, and had to be opened by a dose of castor-oil. No rose rash was visible at any period. It seemed possible that it might be a mild case of fever, but the diagnosis was doubtful. From the time of his admission he appeared to be gradually improving. He had a slight cough, with mucous expectoration, and on one or two occasions he expectorated a small quantity of blood, but there was nothing in his symptoms to direct attention particularly to the chest.

On the 26th of November, it was noted that he was getting stronger, had very little headach, slept well, appetite good. Pulse, 100; respiration, 16. Urine, sp. grav. 1019, acid, no albumen. On the 27th he was seized after breakfast with pain in the abdomen; and on the following day, the 28th, he was looking seriously ill,—the abdomen was tender, the skin hot, the tongue dry, the urine was tinged with blood, and slightly coagulable by heat and nitric acid. From this time he grew rapidly worse, the urine became very scanty and bloody, there was frequent vomiting, great pallor and prostration, ending in death on the afternoon of the 1st of December. Consciousness was retained to the last.

Post-mortem examination, forty-eight hours after death:—

A tumour was found in the anterior mediastinum, in the situation of the thymus, about six inches long from below upwards, three inches wide, and an inch and a-half thick. It adhered to the anterior surface of the pericardium, but not to the sternum in front, or to the pleuræ at the sides.

The heart was small and flabby; valves healthy. The lower lobes of both lungs were much gorged with blood. Some small patches of ecchymosis in the left pleura.

The kidneys were much enlarged, the two together weighing twenty ounces—one ten ounces and a-half, the other nine ounces and a-half. The general surface of the glands had a pale œdematous or wax-like appearance; but in each kidney there were about twenty patches of

circular outline, varying in size from that of a small pea to a marble, slightly raised above the surface of the surrounding renal tissue. In the centre of most of these patches blood had been extravasated.

The pelvis of the kidney contained blood, which had probably come from the cortical portion of the gland. The liver was rather large, but appeared healthy.

The mucous membrane of the intestine was free from disease, and no other disease was found in the abdomen.

Microscopical examination.—On section, it had much the consistence and colour of a Swede-turnip, but with a few small hæmorrhagic specks scattered through it. It was found to be in great part composed of small cells, having much the appearance of pus-cells; but the addition of acetic acid merely made them more transparent, and did not bring into view the compound nuclei which are characteristic of pus. Some larger cells contained oil. The cells appeared to be embedded in an ill-defined fibroid matrix.

Cells having precisely the same characters were found in the circumscribed deposits in the kidney. It was not easy to determine whether the cells were contained within the tubes, or whether they were intertubular; but Dr. Bristowe, who, some time since, made a careful examination of a specimen which appears to have been very similar to this, satisfied himself, that in that case the "cancer-cells were in the matrix of the organ exclusively, and that in consequence of their development, the tubes and Malpighian bodies were separated to an unusual distance from one another."*

It is interesting to observe, that in Dr. Bristowe's case, which had occurred in the practice of Dr. Barker,† there was a cancerous tumour in the mediastinum as well as in the kidney; and in a case which occurred in the practice of Mr. Part,‡ there was the same coincidence.

Dr. GEORGE JOHNSON, 6th of December, 1859.

8. *Epithelial (?) tumour of the tongue.*

The tumour was hard and ulcerated, involving the tip, and right half of the tongue, to the extent of about two inches. The rest of the tongue was small and atrophied; the pharynx and œsophagus was small from disuse. The specimen was removed after death from a patient æt. 79.

The disease was reported to be of sixteen years' standing, but the patient was under observation for the last six years only. He suffered lately from constant gnawing pain in the tongue and the right side of the face, with loss of sleep, emaciation, and debility.

* "Transactions of Pathological Society," Vol. VII., p. 391.

† "Transactions," Vol. VII., p. 47. ‡ "Transactions," Vol. V., p. 185.

He could not swallow solid food, and of late not even fluids readily.

He required internal opiates frequently; but no external application, whether of chloroform, aconite, opium, or belladonna, gave relief.

An operation was proposed, but would not be submitted to, and death took place on the 14th of November, 1859.

A careful examination of the body was made, but no trace of malignant disease elsewhere was discovered, and none in the lymphatic glands of the neck. There was a well-marked arcus senilis on each cornea, and the coronary and radial arteries were ossified; the heart was small, but free from fatty deposit.

MR. FRANCIS W. DAVIS, 6th of December, 1859.

Report on the above specimen.—Dr. Bristowe and Mr. Hutchinson reported upon this specimen, that they were of opinion that it did not present the features of epithelial cancer. There was little or no tendency to growth of abnormal tissue displayed in any part. The edge was indurated, but of no great thickness, and over the base of the ulcer the muscular tissue was exposed. The edge was of about the same thickness in all parts. *Microscopical examination* of sections of the edge showed the elements common to chronic inflammation of the part. Here and there, a very few cells, bearing some resemblance to those known as “nested cells,” were found, but they were so few and so ill-characterized, that no inference as to the nature of the ulcer could be safely based upon their presence. Taking in juxtaposition the facts, that the sore had been of many years’ duration, that the adjacent glands had never enlarged, that there was no growth of tissue, but simply ulceration, with indurated borders, and lastly, that the microscope did not display the elements usually seen in epithelial cancer, they were of opinion that the disease was allied rather to that known as rodent ulcer than to the more decidedly malignant class.

Dr. J. S. BRISTOWE,

Mr. JONATHAN HUTCHINSON, 3rd of January, 1860.

9.—*Cancerous mass in the mediastinum affecting the lungs and all the chief blood-vessels and nerves, &c.*

J. P. was admitted into King’s College Hospital, the 19th of September, 1859, when the following notes of his case were taken.

He is an ornamental glass-worker, æt. 32, of temperate habits, and has lived in London since the age of thirteen. There appears to be no hereditary tendency to malignant disease in his family, and he has eight brothers and sisters living and healthy, as are also his father and mother.

Twelve years ago broke his right collar-bone, but with that exception has never had any illness.

About five months ago was engaged in a scuffle in which he was thrown with some violence against a staircase, but did not at the time appear to have sustained any injury, though he connects his present illness with the accident.

Shortly afterwards he began to experience slight dyspnœa, and noticed that his face was swollen in the morning when he got up, and that the swelling subsided towards evening, and also that the veins of his neck and chest were enlarged. The dyspnœa went on increasing, the swelling of his face became more marked and permanent, and he began to be troubled with cough, and spat with it a little frothy mucus. His appetite also failed, he had morning retching, and used to vomit after severe fits of coughing. The dyspnœa came on in paroxysms. One morning, about two months ago, after a more than usually severe fit of cough and dyspnœa, his voice suddenly left him, and he has since only been able to speak in a whisper. About the same time he began to experience some difficulty in swallowing, feeling as if the food, especially when solid, met with some obstruction about the lower part of the sternum; but this difficulty appears never to have been great.

He now—that is, two months before admission to the Hospital—first noticed a swelling beginning to form on the front of his chest. He also began to have frequent attacks of giddiness, several of which have caused him to fall down, and his sight became very weak. During all this time he had been falling away in flesh. He never spat blood or rust-coloured sputa, but the matter expectorated has gradually become thick and puriform.

He has also suffered from pain in the tumour and in the back, and for the last five or six weeks has been unable to lie down in bed on account of the dyspnœa.

He states that the swelling of his face has been more marked on the right side than on the left. On admission to the Hospital he was suffering from urgent dyspnœa coming on in paroxysms, and during fits of coughing appeared in danger of suffocation. His countenance was pallid and somewhat livid, and he was obliged to sit upright in bed with his head bent forwards on his chest. The face, neck, and upper part of his chest were noticed to be swollen and puffy, though there was no distinct pitting on pressure.

The veins of the neck, especially the right external and anterior jugulars were much enlarged. The superficial veins of the front of the thorax, and in the left mammary region, and over the left shoulder, were in a similar state, and communicated freely with the veins of the neck and with enlarged epigastric veins.

In the upper part of the chest in front there was a slight, firm, inelastic prominence, evidently caused by a tumour in the anterior mediastinum, which had penetrated the sternum, and projected slightly above it. Heads of the tumour could be felt rising into the neck behind the upper end of the sternum, and the inner half of the right clavicle.

The tumour was somewhat tender on handling, but it had no perceptible pulsation, and no morbid bruit was heard over it. The sounds of the heart were natural, and were distinctly heard over the tumour.

An occasional reduplication of the first sound was noted by Dr. Murchison, who took charge of my Hospital patients during the month of September; but I never remarked this peculiarity in any of my examinations after that time. On percussion, there was dulness over the front of the chest corresponding to the anterior mediastinum, commencing near the top of the sternum, and merging below into the cardiac region. Laterally, it extended from about an inch beyond the left border of the sternum, to about an inch beyond the junction of the right ribs with their cartilages. Elsewhere the thorax was resonant.

On auscultation over the front of the chest, the breath sounds were harsh, and accompanied by a good deal of wheezing and occasional crepitus. On the right side, the sound of expiration was more prolonged than on the left and harsher. Behind, there was loud tubular breathing near the spines of the fourth and fifth dorsal vertebræ, extending for some distance from them on the right side. Elsewhere there was a good deal of general wheezing.

The man was not much emaciated, though he stated that he had fallen away very much since his illness. He was only able to speak in a whisper, and continued to complain of some difficulty in getting his food down. There was no difference in the quality of the pulse in the two arms, and his pupils were of the same size. He expectorated a considerable quantity of puriform matter.

The disease was recognized as malignant, and only palliative remedies were employed.

After his admission to the Hospital, probably in consequence of rest in bed and soothing remedies, the symptoms became somewhat less distressing, the fits of cough and dyspnoea became less frequent and severe, the swelling of the face subsided, the difficulty of swallowing was less complained of, and he could lie back in bed. The pulse ranged from 86 to 92; the respirations from 26 to 22 a minute. After a time the tubular breathing heard at the back of the right chest disappeared.

From the beginning of October, the pulse became somewhat more frequent, and the respiration increased much in frequency, but varied greatly from day to day, ranging from 36 to 50 in the minute. He continued to spit with much difficulty a great quantity of puriform

matter. The difficulty of swallowing continued, but not in a great degree. He complained often of pain in the chest, especially on the right side in front, and in the latter part of October, of pain and a sense of numbness in the right arm.

On the 30th of October, he became much worse. The face was much more swollen and rather livid, and he had great difficulty in expectorating. He died at 1 A.M. on the 31st, apparently from suffocation.

Post-mortem examination.—When the integuments and muscles were reflected from the front of the chest, there was found incorporated with the upper part of the sternum, and projecting on its anterior surface, a firm white cancerous tumour readily cut into with the knife, involving laterally the cartilages of the first two or three ribs on the right side and closely united with the pectoral muscles. Behind the sternum two prolongations of the tumour rose into the neck, that on the right side being the larger and extending nearly to a level with the cricoïd cartilage. These prolongations were lobulated and appeared to consist of enlarged and altered glands.

On deeper examination, the whole of the anterior mediastinum was found occupied by the tumour, from the origin of the great vessels at the base of the heart to the upper end of the sternum, where it sent into the neck the prolongations mentioned above. The upper part of the sternum was incorporated with the tumour, and could be readily cut with the knife. The mass, which extended rather further to the right side than the left—reaching on the right side to about the junction of the cartilages of the upper ribs with their bodies—was incorporated with the anterior border and inner surface of the lungs, and posteriorly pressed upon the trachea and œsophagus. The whole of the right pleura, except quite at the base of the lung had its two layers closely adherent, the adhesions being thickest and strongest at the upper and front part of the lung. There were also extensive adhesions at the upper part of the left lung. About the left mammary region, was a layer of lymph of recent formation.

On dissection, the following parts were found to be more or less involved in the tumour.

The right lung was closely united to the tumour by its inner surface and anterior border, except quite at the base: the cancerous matter infiltrating the lung for about an inch or an inch and a-half. Beyond this and at its base, the lung was in parts in a state of red hepatization, elsewhere much congested, and pus oozed from the cut bronchial tubes. Nowhere was the pulmonary substance broken down.

The left lung was not so extensively adherent to the tumour, it was affected in similar manner, but in less degree.

The trachea was much flattened, and its anterior surface closely

united to the tumour from the root of the neck to the bifurcation of the bronchi. The cancerous mass nowhere penetrated into its interior. The left bronchus was adherent to the tumour by its anterior surface for about an inch, but elsewhere unaffected.

The right bronchus was united to the tumour in greater extent and was somewhat flattened by it, but its subdivisions passed into the lung unaffected.

The heart was of medium size and healthy. The tumour formed projections on the inner surface of the pericardium, but there were no adhesions or other indications of pericarditis.

The aorta, at its exit from the pericardium, passed into the tumour, and was contained in it as far as the junction of the transverse and descending portions of the arch. Its calibre was not narrowed, and its coats outside the tumour were healthy. All the branches of the arch were given off in the substance of the tumour, and issued from it at the root of the neck. The calibre of these vessels also was unaffected and beyond the tumour their coats were healthy. The trunk of the pulmonary artery passed into the tumour, and divided in it into its two branches, which were both somewhat constricted.

The left branch divided into its two terminal branches outside the tumour and these subdivisions passed to the lung unaffected.

The right branch divided in the mass. The superior twig was contained in the tumour, and its subdivisions had their coats thickened for some little distance in the lung. The middle and inferior twigs passed to the lung unaltered.

The two internal jugular veins and the two subclavian veins passed into the tumour at the root of the neck before uniting, their coats being thickened for some little distance previously, and the innominate veins and the superior cava were entirely contained in the tumour. The entrance of the superior cava into the right auricle was only just perceptible, and the smallest sized gum-elastic catheter could not be passed into it. The vena azygos major was of large size and entered the tumour just above the root of the right lung, where it became occluded. Just at its entrance into the tumour, it was joined by a branch nearly as large as itself descending from the upper part of the thorax.

The pulmonary veins on both sides were behind the tumour and passed from the lung unaffected.

The brachial plexus of nerves in the neck on the right side was pressed upon by the prolongation of the tumour, but not involved in it.

Both pneumogastrics and both phrenics passed into the tumour at the root of the neck, but the place at which the phrenics emerged from the tumour was not traced.

Both recurrent laryngeal were found issuing from the tumour.

The left pneumogastric issued from the tumour below the arch of the aorta; the right just behind the upper part of the root of the lung. Its posterior, pulmonary, and œsophageal branches were not affected.

The œsophagus was somewhat compressed, but not involved in the tumour.

The bronchial glands were enlarged and infiltrated with cancerous matter at the bifurcation of the trachea. There was one very large one presenting on section all the characters of the tumour. The termination of the thoracic duct was contained in the tumour.

Microscopical examination.—The juice which could be squeezed from the tumour was found to consist of a number of nucleated cells of various forms and sizes, many of them containing secondary cells within them.

A thin section of the tumour presented a fibrous structure.

Dr. BUDD, 6th of December, 1859.

10. *Syphilitic tumours of muscle.*

Mr. Sydney Jones referred to a specimen exhibited by him about three years previously, a report of which is contained in the seventh volume of the "Transactions." That specimen showed the muscles occupying the venter and dorsum of the scapula, as well as those attached to its inner costa, to be infiltrated with inflammatory elements. The history in connection with it afforded strong grounds for looking upon the disease as syphilitic: the man had had a sore upon the penis, attended with bubo; and smaller, but apparently similar, tumours had subsided under the influence of iodide of potassium.

Since the exhibition of that specimen, Mr. Sydney Jones had looked for tumours of muscle in connection with syphilis, and had found them developed in the muscles of the tongue, as well as in the latissimus dorsi, rectus femoris, and biceps muscles: they were in all cases attended by other well-marked symptoms of syphilis, were for the most part painless, and rapidly disappeared on the exhibition of iodide of potassium. The specimens exhibited at the present meeting were all removed from a female, æt. 30, who had long suffered from syphilis; besides every variety of skin eruption, she had had extensive caries and necrosis of the skull, and periosteal nodes in almost every bone of her body.

A right humerus was shown to the Society, with the triceps attached; in the substance of the latter there was a tumour, from two to three inches in length, involving the whole thickness of the muscle, and the breadth of which nearly equalled that of the humerus. Some carious bone was seen beneath the upper part of this mass. About an inch and a-half above the internal condyle, there was a smaller mass, projecting somewhat above the surface of the muscle: it looked at first sight like a

gland, occupying the position of the lymphatic gland ordinarily found in this situation; a section, however, showed its structure to be continuous posteriorly with that of the infiltrated triceps.

Another specimen showed a similar affection of the left triceps, but to a much less extent.

The third specimen was part of the left ulna, with some of the muscles attached; the flexor and extensor carpi ulnaris, and the flexor profundus digitorum were involved by a tumour seen near the lower end of the specimen.

The fourth specimen was from the right lower extremity; the flexor longus pollicis showed, just above the middle third, a tumour about an inch and a-half in length, and an inch in transverse diameter; this involved somewhat the peroneus brevis. A smaller tumour was seen about the middle of this specimen, an inch in length, and measuring half-an-inch transversely.

All these tumours were apparently the result of infiltration of the muscular or tendinous fibre with inflammatory elements. The section of each was firm, had a dead-white, and rather fibrillated appearance, but yielded no juice. They are now contained in St. Thomas's Museum.

SYDNEY JONES, M.B., 6th of December, 1859.

11. *Cases of general and peculiar enlargement of the absorbent glands of the body.*

CASE 1.—*Peculiar enlargement of the lymphatic glands throughout the body. Peculiar deposits in the liver and spleen. Unusual condition of the blood.*

The patient, M. B., was a housemaid, æt. 39, who died in St. George's Hospital.

History.—It appeared that she had always enjoyed tolerably good health, until about the seventeenth or the eighteenth day before she was brought into the Hospital; at that period she was seen by Mr. Hunter, and complained of pain over the abdomen with "general cold" and uneasiness. This was attended and followed by quick pulse, and enlargement and pain in the inguinal and cervical glands. The bowels were inactive, and there was much intestinal flatulency and nausea. Aperients and sedatives gave some relief, but the abdomen continued tense and painful, being not resonant at its upper part, although tympanitic at the lower part, and some disease of the liver was suspected. She was afterwards brought into St. George's Hospital. Subsequently, œdema of the legs came on, and considerable dulness on percussion was found over the left hypochondrium, which was very painful. The pulse became still more frequent, the tongue

red, and the general health much disordered, the face having a very cachectic appearance. Dyspnoea and acute pain in the back came on, and finally delirium, which preceded death.*

Post-mortem examination.—The left pleural cavity was found to contain a very large amount of turbid fluid, and the base of the right lung was rather consolidated; otherwise the thoracic organs presented nothing unusual. The lymphatic glands about the root of the aorta were enlarged; but this was not the case with the mediastinal or bronchial glands. The cervical, femoral, inguinal, pelvic and mesenteric glands, &c., were enlarged; and some of them were dark and softened, the others being of a yellowish-red colour. *The thyroid gland was also noticed as enlarged.* But the chief gland enlarged was the spleen which weighed as much as four pounds, was of a dark bluish-brown colour and very greatly elongated. On section, the spleen was found to contain several, chiefly wedge-shaped masses, mostly of a yellowish-white colour; and the liver which was also very large, contained a great number of small masses of the same kind of material, never exceeding in size, however, that of a pea. The kidneys were granular, and otherwise highly diseased.

Microscopical examination.—The main elements of all the enlarged glands were alike in character, and consisted of delicate bodies, of a rounded form, and of a size perhaps rather larger than that of the white corpuscles of the blood. Here and there, however, large-sized

WOODCUT 27.



Represents the microscopical characters of the elements obtained from the abdominal glands.

* For some notices of the earlier symptoms of the patient's malady, I am indebted to Mr. Hunter, Jun., of Knightsbridge, late House Surgeon at St. George's Hospital.

cells or vesicles, containing large nuclei (some having three or four nuclei) were seen (see Woodcut 27). Moreover, the light-coloured masses met with in the spleen and liver presented exactly the same

WOODCUT 28.



Represents cell-structures, &c., from the splenic blood.

elements as those above described as existing in the enlarged lymphatic glands, mixed with an albumino-fibrinous material.

The blood was found, in addition to the ordinary microscopical elements, to contain cell formations of a peculiar kind. Thus in the

WOODCUT 29.



Represents the structures found in blood from the superior vena cava.

splenic vein (Woodcut 28), numbers of round and oval, and irregularly-shaped large cells, of various dimensions existed; some containing, in addition to a delicate, half-transparent material, nuclei varying in number from one to six or seven; and in some cases, besides these nuclear bodies, of which most possessed a nucleolus, a number of small round refracting bodies existed.

Occasionally, also, more or less spindle-shaped fibres, containing similar nuclei, were visible.

At times parts of the circumference of the walls of the large nucleus-holding bodies were very much thickened, giving to these bodies something of a crescentic character. Again, in the blood of the superior vena cava, numbers of very large transparent cell-bodies were observed (Woodcut 29) in which existed round non-nucleolated nuclei, and also numbers of nucleolated free nucleus-like bodies, as well round as oval.

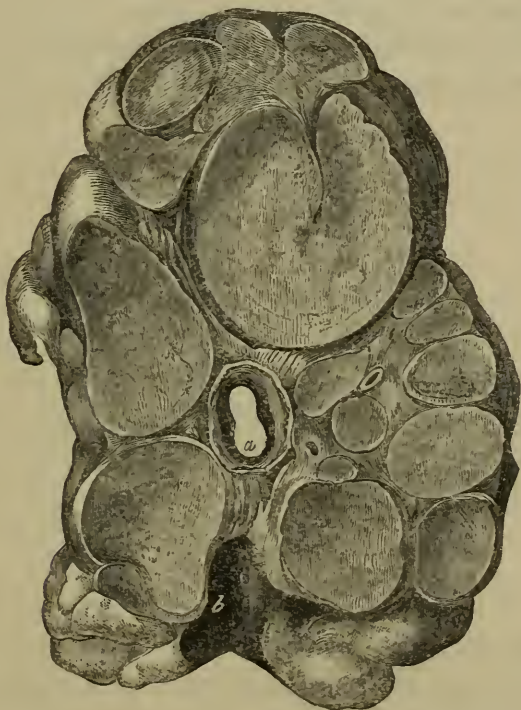
CASE 2.—*Enlargement of the various lymphatic glands throughout the body; various viscera of the body congested.*

History.—The patient, a man of middle age, had enjoyed tolerable health until nearly two years before his death, when for the first time he perceived a swelling not much larger than a pea *near the angle of the lower jaw* on the right side, and a few weeks later, perceived a similar swelling at the corresponding part of the opposite side. Both the swellings increased rapidly in size, but were not the seats of any pain. About one year previous to death, a gland in the *right axilla* became enlarged, and two months later, the opposite axilla became affected. Six months later, the glands in the *inguinal region* became enlarged, and about this time, pain was complained of below the umbilicus and the abdomen was generally enlarged, the superficial veins being unusually marked; no distinct tumour, however, was found in that region. Two months before death, the patient presented himself as an in-patient at St. George's Hospital, and was placed under Mr. Hawkins' care. He was then in a state of great debility and depression, and had a countenance full of anxiety. The pulse was quick and frequent. The glands in the neck were greatly enlarged from the ear to the clavicles, many being of the size of a walnut. They were *un-adherent* to the skin. In the axillæ the enlarged gland formed a soft and elastic mass of the size of a small melon; the integuments were not adherent, and of a natural colour. The inguinal enlarged glands were harder than those in other parts, and were felt as well above as below Poupart's ligaments. There was no indication obtained by percussion or auscultation, of the presence of diseased glands within the thorax, slight bronchitis only being detected, but the inspirations were very frequent. A few

days after admission, a feeling of distention and tightness across the abdomen was complained of after eating, and the bronchitic symptoms had increased; subsequently the expectoration became tinged with blood and purulent. The cervical glands continued to enlarge, and the debility to increase, and œdema of the legs came on along with orthopnœa. The heart's action became very feeble and irregular, the face livid, and semi-stupor set in before death.

Post-mortem examination.—The enlarged glands in the neck and axillæ above spoken of were found to be closely surrounding the neighbouring vessels. In the neck both the superficial and deep series of glands were enlarged, and the deep vessels and nerves were found entirely surrounded as by a tube of diseased structure, although apparently not interfered with by it. The submaxillary and parotid glands were unaffected, but the absorbent glands within the substance of these secreting glands *were* affected. The absorbent glands in the anterior mediastinum were considerably enlarged, and in the posterior mediastinum there was a large mass of diseased glands involving the various natural structures of the region, and surrounding the vessels and nerves. At one part the

WOODCUT 30.



Represents the mass of enlarged mesenteric and lumbar glands surrounding the aorta, &c.,* (two-thirds the natural size).

a. The aorta.

b. The vena cava.

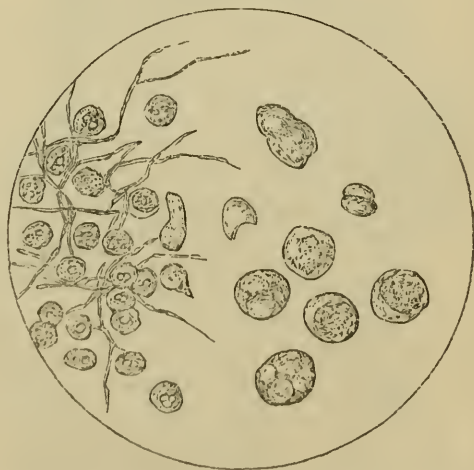
* The specimen is now in St. George's Hospital Pathological Museum, as No. 2 *d*, Sub-series iii, Series xvi.

pneumogastric nerve was found surrounded by an enlarged gland. The glands at the roots of the lungs were much enlarged, as were also the mesenteric, the lumbar, and pelvic glands which encased the neighbouring vessels and nerves. (See Woodcut 30, where a section of enlarged glands enveloping the abdominal aorta, and partly the vena-cava inferior and other vessels, is exhibited.) At one part below a large mass of glands surrounding the vena cava, this vessel was seen dilated, with very thinned walls.

All these enlarged glands presented much the same characters, their consistence being considerable, and their substance being in parts quite indurated. Their outer surface was of a lightish-yellow colour, but sectional surfaces presented generally a bright-red colour, and were with ease broken down into a pulpy state, but in no case had softening or suppuration taken place. On examining the various viscera they were found to be much congested, but nothing more. Both pleural cavities contained large quantities of a milky-looking fluid, and on the left side a slight amount of fibrinous exudation existed.

Microscopical examination.—The enlargement of the various glands was found to be due to the presence of material, consisting almost entirely of corpuscles, somewhat larger than pus-globules, with very delicate parietes, and almost transparent contents, so that they were often to be recognized only with difficulty. (Woodcut 31.) Occasionally,

WOODCUT 31.



Represents the microscopic constituents of the enlarged glands.

instead of being round, these corpuscles were elongated at one side. Nothing like a nucleus was visible within them when recent; but after immersion in spirit for sometime, their contents became more opaque, and more or less granular, with here and there, something like a nucleus. At times large bodies were seen formed apparently of aggregations of the above corpuscles.

Remarks.—The above two cases, Nos. 1 and 2, possess several points, in common as well as in contrast, worthy of note; and, moreover, may prove useful acquisitions as illustrations of an interesting class of cases which, having been first brought prominently into notice by Dr. Hodgkin, have of late acquired increased attention from observers abroad, as well as in England. Thus, the present volume, as well as the last one, of our “Transactions” contains notice of these cases of generally enlarged lymphatics by Dr. Wilks, and in the former of these volumes (Vol. X. p. 261,) will be found allusions at length by that gentleman to the description of such cases by Dr. Bright, as well as to that of a case by Dr. Markham.

Again, mention of such cases has been made abroad by several clinical observers, as by Wunderlich,* under the name of “Multiple-hypertrophy of lymphatic glands,” although he uses this designation not without hesitation, as regards certain cases at any rate; the matter has also been treated of by Böttcher.†

With regard to the individual points of interest in the two cases which I have just related, I may notice especially the following:—

1. That nothing like (so-called) tubercular or scrofulous deposit was found to exist in either of the cases after death; and in this respect, they appear to contrast with most of those cases observed by Dr. Wilks, who indeed looks upon the deposit in question found in the lymphatic glands, as one holding a position intermediate between scrofulous and carcinomatous deposit. Of the case alluded to above as observed by Wunderlich, one was attended by phthisis and vomicae, the other apparently not so.

2. That the microscopical appearances observed in the various enlarged glands in the two cases agreed very closely, the adventitious material met with in the enlarged glands being composed mainly of rounded delicate bodies rather larger than pus-globules; although in the one case (No. 1.) occasional large-sized and many nucleated vesicles were seen, which were not met with in the glands of the other one. In the latter again, a few of these cell-forms were prolonged at one part, so as to have somewhat of a pear-shape.

The character of the material which gave the enormously increased size to the gland contrasts very strongly with that often found to exist in the glands in these cases, as described by observers: for instance, Dr. Wilks, describes it as consisting “essentially of a nucleated fibrous structure with some little amount of lardaceous matter combined with it.” Indeed, the increased size of the gland in my two cases would appear, judging from the microscopical appearances, to have been rather due to

* Archiv. f. Physiolog. Heilkunde. Band ii., 1858, p. 123.

† Virchow's Archiv. Nov., 1858.

some cause producing an irregular and tumultuous increase in the component parts of the gland, and acting throughout the body, than merely the result of the effusion of an albuminous deposit which underwent further transformation.

3. In the one case, the liver and spleen were quite *un*-affected by any adventitious deposit, whilst in the other case, both these organs were the seats of such deposit consisting of an albumino-fibrinous material which contained vast numbers of the same kind of cell-form, as was so plentifully observed in the glands. This discovery of the presence in large numbers of these cell-forms in the large masses of deposit in these organs was specially interesting, as regards the existence of what Virchow has described as leukhœmic tumours of the liver and kidneys; and which have been recognized by Friedreich, Böttcher, &c., in several parts of the body. On the presence of these masses in the spleen, liver,* and various parts of the body containing elements histologically comparable with the white corpuscles of blood or lymph, I have made some observations in connection with specimens of diseased spleen. (See further on, p. 269, in section on "Ductless Glands.")

4. The peculiar forms found, in Case 1, in the blood of the splenic vein and vena cava were of great interest. These I suppose to have most likely had origin in the spleen and lymphatic glands, and to have been the result of some unusual action of these organs; organs whose functions are obviously in some way or other (although not very clearly defined), connected most intimately with the elaboration of the blood. I may here with advantage allude to the relation supposed by some to exist between the lymphatics, and the Malpighian corpuscles of the spleen,† as also between the lymphatics and Peyer's glands,‡ organs which are known to be so similar in structure to lymphatic glands.§

It is not unworthy of attention, that in one of my cases, the "*thyroid gland was enlarged.*"

I much regret, that in neither of these cases was the blood during life examined with reference to the absolute or relative account of white and red corpuscles; or again, that after death various parts of the body were not examined with regard to the presence of the so-called amyloid bodies; or again, that the stomach and intestines were not carefully scrutinized with regard to the state of the mucous membrane (speci-

* The lymphatic vessels in the liver have been long known and described, and lately injected by Dr. Beale (see the Archives of Medicine, Vol. X., p. 113); but I am not aware whether lymphatic glands have been found in this viscus. If such exist, they may be, perhaps, the seat of the deposit which caused the so-called leukhœmic tumours of the liver.

† Eberland, see Vierteljahrsschrift. f. pract. med., 1856. Band iii.

‡ See Donder's and Brücke in Schmidt's Jahrbücher, 1854.

§ In the frog it has been found, that removal of the spleen is followed by the increased development of the various lymphatics.

ally the intestinal glands) which in certain cases of leukhæmia, along with peculiar deposits in the viscera, pleuræ, &c., has been found, as by Friedreich of Würzburgh,* to be the seat of sundry elevations and tumours (in connection with enlarged lymphatic vessels) possessing the same histological elements as the enlarged lymphatic glands throughout the body.†

The anasarca which, with the extreme prostration and the peculiar cachectic appearance of the skin, is so frequently associated with these enlarged glands, may be to a great extent, I think, attributed to their pressure upon neighbouring blood-vessels, just as we know general anasarca often arises, owing to disease of the lungs, from interference with the blood's passage, though, of course, much of it, as well as of the extreme debility, may be set down to alteration in the blood and in the capillaries.

I cannot conclude without a passing allusion to a case at the present date under my own care. It is that of a woman æt. about 45, who has been for above a year the subject of great prostration, emaciation, excessive enlargement, *without pain*, of the femoral, inguinal and, apparently, the mesenteric and lumbar glands. At one time the femoral and inguinal glands were almost equal in size to the head of a newly-born infant, producing the greatest difficulty in walking or stooping, &c. After trying various remedies without avail, her general health and spirits have very exceedingly improved, and the enlargement of the glands above mentioned has most materially diminished (by, certainly, three-fourths), under the persistent use of steel and the diluted liquor potassæ, which she is still taking.

I will subjoin an abstract of the details of a case bearing on the two which I have described above, but differing so much in one or two points, that I have not classed it with them.

Dr. JOHN OGLE, 20th of December, 1859.

12. *Enlarged cervical glands affected by a peculiar deposit.*

This case I alluded to merely in connection with, and illustrating, the subject of the communication immediately preceding this, viz., the "General enlargements of the absorbent glands throughout the body."

* Virchow's Archiv. Band xii., Hft. 1, p. 37. 1857.

† See the observations of Friedreich last quoted, which had partly for their object to prove, that the connective tissue-corpuscles were engaged in the production of leukhæmia, and to substantiate the connection between such colourless corpuscles and the commencement of lymphatic vessels as propounded by Virchow and Leydig. Böttcher, also, in the case above alluded to as recorded by him, thinks that he traces distinctly the relation between the deposits in the liver and kidneys to the connective-tissue corpuscles.

In connection also with this subject, see the cases which are related by myself in the section on the "Ductless Glands" (see p. 269), in which deposits in the spleen, of a leukhæmic character, are described.

It differs from them, however, in apparently being local in character ; but so far corresponds, that the diseased glands presented microscopical appearances in some respects allied to those found in the above-mentioned cases, and totally different to those ordinarily met with in enlarged lymphatic glands.

These glands formed a chain, which were removed by operation, during life, from a boy, by Sir B. C. Brodie, and were minutely examined by me recently in St. George's Hospital.* The boy perfectly recovered from the operation, and, as far as was known, no other enlargement of glands existed or appeared afterwards.

Microscopical examination showed that the enlarged glands, some of which are larger than a hen's egg, owed their extreme size to a quantity of material infiltrating them equally, in which were seen some fibre-cells, but also multitudes of small, round and oval, brightly-refracting nucleus-like bodies, with, also, numbers of larger, round, cell-like leucocytes.

These latter were, many of them, opaque. In the glands which were less enlarged than others, fibre-tissue, with occasional fibre-cells, were found much more plentifully than in the larger ones, mixed with gland-cells.

Dr. JOHN OGLE, 20th of December, 1859.

13. *Pedunculated lipoma, weighing twenty-nine pounds.*

This specimen was sent me by Mr. Burgess, of Glastonbury, who removed it after death from the neck of a man 94 years of age.

History.—J. M., first perceived a small lump on the right side of the neck about fifty years since. In three years it had reached the size of a walnut, when he was requested to have it removed, but he refused. In 1825, it having still continued to grow slowly, the weight was so irksome, that he sought advice in London, when it is stated the surgeon considered it dangerous to remove the tumour, fearing its connection with the blood-vessels. Since that time, it had slowly progressed, so that he suffered dreadfully from the great weight and dragging on the skin, preventing his even turning in bed without assistance ; and although not suffering acute pain, he passed a life of extreme misery. Having died at last in December, 1859, at an extreme old age, the tumour was removed, and found to be of the enormous weight above-mentioned ; it was easily excised, having merely cutaneous and cellular attachments, and the peduncle comparatively small for so large a growth. It consisted wholly of fat, and the integument was quite sound, not having showed any disposition to slough in any part.

Dr. WILKS, 20th of December, 1859.

* See Catalogue of St. George's Hospital Pathological Museum, 1 d, Sub-series iii., Series xvi.

14. *Enchondromatous mass growing from the tibia.*

Taken from C. M., æt. 32, who was admitted into Guy's Hospital, on the 7th of December, 1859, under the care of Mr. Poland. The tumour had been growing for two years, and was situated in the popliteal space of the right leg, it had not caused much pain, and it was not till the last few months, that from its size it became troublesome.

When admitted there was a large mass projecting into the popliteal space between the gastrocnemii muscles; from its size very slight flexion of the leg was permitted, and some pain was experienced from pressure upon the nerves. Upon the 13th of December, the leg was amputated above the knee-joint, and a steady convalescence followed.

The tumour was subsequently carefully examined, and was found to have sprung from the tibia; it was a splendid specimen of enchondroma, and measured six inches by four in diameter.

Mr. BRYANT, 20th of December, 1859.

15. *Enlargement of the lymphatic glands with deposit in spleen and other organs.*

L. W., æt. 10, died in Guy's Hospital under Dr. Rees' care, in December, 1859. He had been ailing about nine months with general debility, dyspnœa, and enlargement of the lymphatic glands on the right side of the neck; but when seen during this period, nothing very definite could be made of the case. When admitted shortly before death, he was slightly dropsical all over, the urine was albuminous, he was very anæmic and short breathed. On the right side of the neck was a large mass of glands, which aggravated the dyspnœa by pressing on the air-passages. He shortly afterwards died, when the body was found to be universally anasarcaous, though not to any great extent; there was serous exudation into the cellular tissue of the skin, and all the cavities contained fluid. The cervical glands were immensely enlarged, forming a large tumour in the neck; these communicated by a direct chain with similarly enlarged glands in the mediastinum and around the bronchi. The latter had compressed the right bronchus, and on opening the tubes, they could be seen slightly protruding in one or two places into the interior. The lungs themselves contained two independent deposits. The lumbar glands and those connected with the abdominal viscera were less enlarged. The liver, on a section being made, was found to be occupied by a number of minute white specks, which, on close examination, were found to be deposits of new tissue in Glisson's capsule; besides these, one large irregular mass was found, the size of a nut, and consisting of a very tough material. The spleen was occupied

by a large number of white deposits like masses of suet, to half its extent. The kidneys were rather larger than usual, pale, coarse, and friable, apparently not healthy, and presenting to the microscope some adventitious deposit as in the liver. This material which was best seen in the large mass in the liver, consisted of a simple fibro-nucleated tissue; it was the same also in the minuter deposits, which appeared to be all situated in Glisson's capsule, and so also in the case of the kidney, where the adventitious material was found in the intertubular structure.

This case is an example of a not uncommon form of disease, and which was described in the last volume of these "Transactions." It is an affection, as there mentioned, first observed by Dr. Hodgkin, who described it as a peculiar enlargement of the absorbent glands with a deposit in the spleen; these are its main features, though accompanied in lifetime with a remarkable anæmia and disposition to anasarca. In the last few cases which I have observed, the new adventitious material which has caused the enlargement of the glands and the deposit of the spleen, has been found also in the liver and kidneys, and in the present case, in the lungs. It would appear, then, that this disease represents merely one mode in which an adventitious deposit can affect the organs, and that it must take its place in the ranks of malignant diseases, or amongst those affections which are characterized by the development of new growths in the system. The peculiarity of this affection still, however, remains in the fact of the glandular system being especially affected, and which gives rise, therefore, to peculiar symptoms. This may be due to the lymphatic glands being first diseased, for it has not yet been determined in this class of maladies, how far the constitutional, and how far the local causes predominate in causing the propagation of, and in giving the character to, new growths. In the present form of disease, the lymphatic glands appear to be affected for a considerable period, perhaps many years, before the system suffers, and that next the spleen becomes especially involved, and afterwards the other organs; it is possible too, that the propagation takes place in the course of the lymphatics, and the reason of the corpuscles of the spleen, being thus affected arises from the fact of their being intimately connected with the absorbent system, and in like manner the deposit in Glisson's capsule of the liver may have been transmitted by the same channels. As regards its degree of malignancy, it appears to take a place between cancer and tubercle; the growth in the glands, and the implication of the bronchial tubes and pulmonary tissue resembling the former, while its mode of deposit in the splenic corpuscles, and along the minute vessels of the portal system of the liver resembles tubercle; moreover, there is the fact, though not existing in this case, that tubercle is often present in this affection. It may be, that the subject

of the disease is scrofulous, and the enlargement of the glands commences by an albuminous exudation, &c., but then instead of degenerating, takes a more active course as a corpuscular and fibrous growth, and thus represents another phase of tubercle, though still retaining a strong alliance with it.

Dr. WILKS, 20th of December, 1859.

16. *Remains of a tumour which was removed by twisting its neck.*

The patient S. R. was admitted into King's College Hospital, December 17th, with a fibro-fatty tumour on the inner and upper side of the thigh. She was unmarried and resided at Childerditch, and was a teacher in the National Schools for the last twenty years. She had always been delicate, but her family were quite healthy.

Fourteen years ago a swelling the size of a small wart appeared on the spot above named, and this had gone on increasing in size ever since.

On admission, the tumour had the appearance of a large polypus hanging over the inner side of the thigh towards the median line of the body.

The tumour had a small point of attachment, its root, which was merely skin-deep, being only an inch in circumference, while the tumour had a circumference of seven or eight inches; and was about five or six inches in length. It gave little pain until about a fortnight before admission, when it burst in two places; the discharge consisted of pus.

The patient stated that before it burst, the tumour was three times the size it presented on admission.

On December 20th, Mr. Fergusson twisted the tumour round twice.

On the 22nd, the house-surgeon gave it one more twist as a good deal of blood came from it on the night previous, and on the 29th, the tumour dropped off, being exactly nine days from the first interference.

Mr. FERGUSSON, 3rd of January, 1860.

17. *Cancerous tumour from the front of the elbow.*

This specimen was removed by Mr. Poland from the arm of a woman who had suffered three years previously from an accident. During the last six months the tumour had grown rapidly, giving rise to much pain, and causing loss of sensation in the outer part of the forearm and hand.

When the tumour was removed, the brachial artery and median nerve were found passing through the middle of it, and the external cutaneous nerve was embedded in its upper part. The arm was, therefore, amputated. The ulnar and musculo-spiral nerves were not implicated. The

tumour was a good specimen of hard cancer, and presented on microscopical examination the usual appearances.

Mr. DURHAM and Mr. POLAND, 17th of January, 1860.

18. *Half of a fibrous tumour removed from the left side of the back of the neck of a healthy woman, twenty-six years of age.*

The tumour was situated close to the spinous processes, and was very firm and slightly moveable, when the muscles were relaxed.

It had been observed only about three months. It was removed by a straight incision and was found placed under the complexus muscle in contact with the spine of the axis. Under the microscope the structure of the tumour appeared fibro-cellular, with a great many fat globules interspersed.

Mr. PARTRIDGE, 17th of January, 1860.

19. *Recurrent tumours removed from the lower third of the thigh.*

This was a seventh operation. The tumour first removed having been considered fibro-fatty.

Seven years had elapsed between the date of the first operation and the removal of the tumour exhibited.

Mr. FERGUSON, 17th of January, 1860.

Report on the above specimen.—The tumour submitted to us for examination was of a milk-white colour, tough and firm in consistence, homogeneous in structure; it presented neither the crispness of scirrhus, the pulpiness and juiciness of encephaloïd, nor the distinct fibrous character of the so-called fibrous tumours.

On microscopic examination it was seen (Woodcut 32.) to consist of:—

1. An indistinctly-fibrillated, granular matrix, very opaque even with a thin section, having a tendency to break rather than tear, and presenting, therefore, abrupt characterless edges.

2. Roundish, oval, or slightly irregular nuclei, ranging between $\frac{1}{3000}$ th and $\frac{1}{1000}$ th of an inch in diameter, possessing even, well-defined margins, and containing individually a single round highly refracting nucleolus.

3. Numerous fat granules, ranging from a molecular minuteness up to the size of a blood corpuscle.

The fat granules pervaded the tumour unequally, being in some parts very abundant, in others scarcely visible. The nuclei were distributed thickly and uniformly. They admitted rarely of complete isolation, but

when detached carried with them almost invariably irregular shreds or fragments of the material in which they had been embedded.

WOODCUT 32.



Represents the microscopic elements of Mr. Fergusson's recurring fibroid tumour.

The above description accords essentially, we believe, with that given by Mr. Paget of recurring fibroid tumours, the only difference being, that he designates as cells, those appearances which we prefer regarding as shreds or fragments of tissue adhering to the nuclei, and torn, with them, from the surrounding matrix.

Dr. BRISTOWE and Dr. SALTER, 21st of February, 1860.

20. *Recurring fibroid tumour in the maxillary region.*

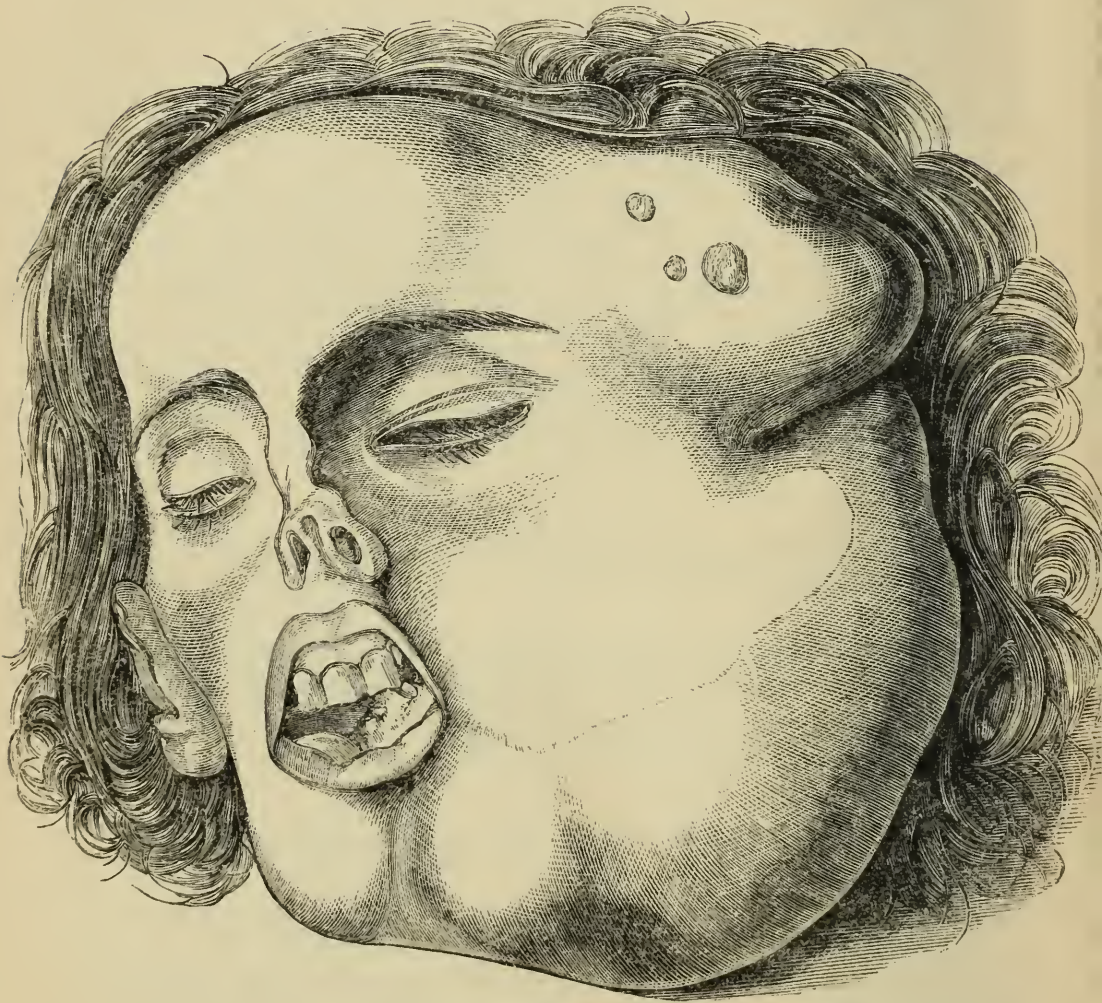
The specimen consisted of the head of a girl, who had been under my care since October, 1858. She had been suffering from a tumour in the maxillary region of the left side, and although I performed three operations for its removal, yet after each the disease returned, and ultimately proved fatal.

The tumour belongs to that class which has been so ably described by Mr. Paget, under the name of "the recurring fibroid tumours," and which may, I think, be justly considered to form one of the links between the benign and malignant growths. Although after each operation the disease rapidly returned, yet I believe that this tumour was a benign one, and for the following reasons.

1. It was a distinct and separate growth, and not an infiltration.
2. It was *vitally* connected only with the periosteum of the bones from which it sprang.

3. It was enveloped in a distinct capsule, isolating it from all other tissues.

WOODCUT 33.



4. As far as I could ascertain no other tissues or organs were involved in the disease.

5. It affected the girl's health only at those times when the tumour had attained to such a size as to interfere with her ability for taking food.

The girl submitted to three operations, but unfortunately after each a recurrence of the disease speedily followed. She always made a rapid recovery, soon became fat, and enjoyed in the intervals between the operations almost robust health.

The first operation was performed on the 4th of October, 1858, when she was admitted as a patient in the Great Northern Hospital under my care. She had then what might be termed a large epulis growing from

the anterior and inner surface of the ascending ramus of the lower jaw of the left side, extending from a point near the angle to close upon the condyles. I removed the tumour with the aid of a pair of bone forceps, cutting away as I then hoped, all its bony attachments. In the following month (November), about six weeks after the first operation, a small elastic mass appeared in the temporal fossa of the affected side, but the jaw was apparently free. This I cut down upon, and excised, but during the operation I found that it had evidently sprung from its original site, and extending upwards, had passed beneath the zygoma into the temporal fossa.

The last operation was in June of last year, when in consequence of the great size the tumour had attained, the inability of the girl to open her mouth, and the great difficulty she experienced in deglutition, I determined to remove a portion of the maxilla. (See Woodcut 34.) This I did by sawing through the bone at its angle, and then disarticulating it.

After the removal of this portion of the jaw, I discovered that the tumour had formed so many attachments to the periosteum of the bones at the base of the skull, that I was compelled to leave some of the disease behind. The rough and thickened condition of the periosteum

WOODCUT 34.



Represents the portion of jaw removed by the operation.

covering the portion of bone which was removed, shows clearly the site

from which the tumour grew. Portions of the tumour were kindly examined microscopically by Mr. Paget, Mr. Savory, and Mr. Hulke, and all concurred in assigning to it the class of recurring fibroid tumours.

At the latter part of last November (1859), the girl was readmitted into the Hospital to be under my observation. The tumour had again grown to a large size, and from the space it occupied in her mouth, interfered much with her taking her proper amount of nourishment.

It now began to soften and to ulcerate on its surface, both externally and within the mouth, and occasionally very alarming hæmorrhage would take place, such as to threaten immediate dissolution, but from all these she rallied; within the mouth large sloughs would occasionally separate, allowing her to recruit her health, by enabling her to take additional nourishment.

Just before Christmas, 1859, she left the Hospital to stay with her parents, and from that period I did not again see her alive, but I am informed by her mother, that the tumour continuing to increase, she was at last scarce able to swallow any food, and what little she did was in a fluid form, and in very small quantity. Gradually getting weaker, she ultimately died exhausted, and from the fearfully emaciated condition in which I found the body after death, I feel convinced that she died of inanition.

This preparation I have presented to the Royal College of Surgeons, London.
Mr. LAWSON, 7th of February, 1860.

21. *Case of exostosis from the orbit.*

The case was that of a man, æt. 30, who had noticed a gradually increasing prominence of the left eye for eight years, causing, at last, considerable deformity, and accompanied with horizontal diplopia except when looking to the left side.

There was no syphilitic or rheumatic history, and he had not met with any injury.

The eye was advanced forwards and displaced outwards; at its inner side was a well-defined hard nodulated mass over which the integuments moved freely; it had two chief prominences which projected above and below the tendo oculi; the structure of the eye was healthy and sight perfect; its movements were considerably impeded.

The tumour was removed by Mr. Bowman. The incision having been made through the upper lid parallel to the eyebrow, and the mass being detached by slight manipulation, and easily removed, it was found to have been attached by a short narrow pedicle to the orbital

plate of the ethmoid bone; the stump of the pedicle was removed by bone forceps, and the wound closed.

The patient made a quick recovery; the eye returned to its natural position, and its movements became perfect, a slight linear scar alone indicating the performance of any operation.

The tumour proved to be an ivory exostosis, the size of a walnut, somewhat flattened from side to side, rough and tuberculated at its anterior and inner aspect where its structure was porous, smoother and extremely dense posteriorly; the anterior border presented two chief prominences, which were felt before removal. The upper border presented a groove in which the superior oblique muscle ran; near the centre of the inner surface was a rough space where the pedicle was attached.

Microscopic examination of the denser portion showed it to possess the structure of bone. The Haversian systems were irregular in their course, and crowded together, each system being imperfectly developed.

The lacunæ were of larger size, and generally of a round form; being in some parts pretty numerous, in others scanty.

Mr. WALTERS, 6th of March, 1860.

22. *Part of a large medullary tumour from the neck of a woman.*

In July, 1858, I removed by operation the uvula, velum palati, and left anterior pillar of the fauces from a woman, æt. 61, who for some months had noticed a narrowing of the throat with an increasing inability to swallow food, but who had feared to speak about it, until she was afraid of absolutely choking.

There could be no doubt of the disease being epithelial cancer; the wound rapidly healed and I heard no more of her for some months, when having to see another member of the family I examined her. I found a swelling deep in the neck under the carotid sheath, it evidently was formed by enlarged glands with very deep connections. The swelling increased, involved the whole of the left side of the neck, and passed up higher than the zygomatic and mastoid processes. The skin ulcerated by pressure in three places, from each of which a large fungus sprouted, and she died from exhaustion in January this year.

The whole body was most carefully examined, not a trace of other disease could be found, and blood taken from both sides of the heart and great vessels was carefully examined without any abnormal cells being detected.

The specimen was exhibited, that the thoroughly malignant medullary character may be put beyond doubt, while no trace of disease could be elsewhere found. As this is at least the fourth case within the last four years in which I have seen persons die exhausted with

enormous fungoid disease of the face and neck, and in which the most careful examination of the body and blood after death has failed to reveal the least evidence of disease in other parts, it appears to throw doubts upon what appears to be the growing opinion as to the constitutional taint being invariably a primary condition, and the consequent impropriety of operation in all cases. In three of these cases the superior maxillary bone, and in one case much more bone, was removed, with the effect of materially prolonging life, and although the disease subsequently returned, it did so in the same part, so as to destroy life by exhaustion. I believe early operation may effectually eradicate the disease.

Mr. NUNNELEY, 20th of March, 1860.

23. *Excision of the superior maxillary bone for a large fibroid tumour attached to its palatal portions, and filling the mouth and fauces.*

This tumour filled the entire space between the teeth of the upper jaw, and pressed the tongue down. It partly protruded from the mouth, and had a fungoid ulceration where the lower incisor teeth had pressed against it. It passed back into the pharynx, which it filled.

The man was weak and emaciated from the difficulty of swallowing food, with a yellow sallow complexion; he could hardly articulate so as to be understood owing to the pressure of the tumour upon the tongue and throat.

It had been growing at least ten years, appearing at first as a swelling on the left palate bone. It had been twice opened some years ago, but only bled; and as he had been told it could only be removed by a serious operation which would endanger his life, and as it was not very painful he did nothing more. It had gradually grown, but more rapidly of late than formerly.

It was impossible to ascertain its attachments posteriorly, but finding it was attached anteriorly only at one side of the palate, I cut out the greater part of the superior maxillary bone in the usual manner, and then dissected back and through both pillars of the fauces, into the posterior wall when it could be turned out. In three weeks the man was at his business, and has since grown quite stout and well, and with a small silver plate he speaks and eats as well as ever.

In character the tumour is fibrous with numerous epithelial cells, and before the operation presented all the character of fungoid disease of the superior maxillary bone.

Mr. NUNNELEY, 20th of March, 1860.

24. *Case of nævus involving the parotid gland, and causing death from suffocation. Nævi of the viscera.*

The subject of this case was a man æt. 44, enervated and anæmic in appearance, who was under the care of Mr. Bullock, of Hounslow, to whom I am indebted for the following particulars.

The tumour was congenital and always very large, and in early life it gave rise to considerable inconvenience, but was at this time greatly benefited, and reduced in size by the external application of æther. For many years the man had suffered comparatively little from it; latterly, however, it had been increasing rapidly, so as to occupy the whole of the parotid region, and cause dyspnœa with some difficulty in swallowing.

There was no pulsation or bruit in the mass, it became very tense and livid under excitement, but could be partially emptied by pressure: under ordinary circumstances it formed a considerable swelling in the parotid region, and gave a very distorted appearance to the left side of the face.

Numerous other nævi were scattered over various parts of the body and limbs, forming tumours of greater or less size.

The various symptoms increased with the growth of the tumour, till death resulted from suffocation.

Post-mortem examination.—Several nævi were seen studding the surface of the intestines, and a small one existed on the liver. The heart was very large and flabby. All the other organs healthy but bloodless; the body very fat.

The portion of the tumour which was exhibited consisted of tortuous and dilated blood-vessels, embedded in the parotid gland, the structure of which was plainly seen filling up the intervals between their ramifications.

The vessels appeared to be the capillary veins of the gland enormously distended, which opened into large pouches and thus formed a true erectile tissue; this cellular arrangement was plentifully found throughout the specimen, many of these dilatations being accurately filled with phlebolites, some of which were as large as a horse-bean. The external carotid artery could be traced through the mass, and the external jugular vein emerged from the lower extremity of it. In the case of the small intestine having a nævus visible beneath its peritoneal coat, the growth had originated in the submucous cellular tissue, and projected considerably into the cavity of the bowel, but the mucous membrane covering it was still entire.

MR. GASCOYEN, 3rd of April, 1860.

25. *Fibro-nucleated tumour from the male mammary region.*

A soldier æt 40, of lymphatic temperament, and formerly in the Prussian Army was admitted into the London Hospital under the care of Mr. Adams. In the right mammary region there was a tumour projecting from the surface to the extent of about three-quarters of an inch. It was about the size of a walnut, dense but resilient, and not adherent to the subjacent tissues; and its deep-seated portion merged into smaller masses. The skin over it was tense and shining, highly injected, and purplish-pink in appearance, in consequence of a number of dilated veins ramifying immediately beneath it, and at its lower and inner parts the areola and nipple were thrown forward, and apparently involved in the growth. The tumour was detected about twenty-one or twenty-two years ago, as a cutaneous tubercle, a quarter of an inch above the mammary gland. It gradually increased unattended with pain, till five years ago when it became, and has since been, painful at periods. It grew more in a downward than in any other direction. After removal it was found to be made up of three masses, the largest mass equal to a small walnut in size, the one below this to the kernel of a common nut, and the third to an almond, the three being kept together by dense connective tissue. The smallest lobe was that which was in connection with the mammary gland, but a careful examination pointed out very close contiguity without continuity of structure. The surface of the tumour on section became convex, had a nacreous appearance, and gave the idea of the growth being fibrous. A microscopic examination made by Mr. Hutchinson, pointed out that the morbid structure was a well-marked specimen of the fibro-nucleated tumour described by Dr. Hughes Bennett, and figured in Paget's work.

Mr. NATHANIEL WARD, *3rd of April, 1860.*

26. *Cystic tumour from the occipital region.*

A female, aged twelve months, was brought to the London Hospital as an out-patient, having a large tumour in the occipital region, which was congenital, and had latterly much increased. It was on a level with the middle of the top of the neck inferiorly, its superior limit being three inches higher up, measuring over the distended occipital integument with which it appeared closely connected. It could be moved freely from the subjacent parts, was spheroidal in outline, and a little larger than an ordinary billiard-ball. It felt like fat in some parts, in others like fluid contained in one or more cysts, and did not shrink perceptibly on equable pressure being applied to it. The mother had taken the child to more than one institution in which but little

treatment had been adopted; thus leading to the inference that the nature of the tumour was regarded as doubtful by those surgeons who had examined it. A grooved needle was passed into the most tense portion of the tumour, and gave exit to about two drachms of serous-looking fluid, somewhat redly tinged. The cyst thus opened had refilled at the end of a week; and Mr. Ward removed the tumour, commencing the operation by a vertical elliptical incision which included part of the occipital integument.

The tumour was made up of condensed areolar tissue, in the substance of which had formed a number of cysts, either isolated or communicating with each other, and containing limpid serous fluid tinged with blood. These cysts occupied the more central part of the tumour, and the walls of some of them were highly vascular, vessels fully injected being seen with a common lens running over their surface. The large cyst that had been punctured would contain a cob-nut. The circumference of the growth was represented in a great degree by large areolæ developed in the connective tissue. The tumour was situated between the integument and occipito-pontalis, and much venous hæmorrhage occurred during its removal.

The child made a good recovery.

MR. NATHANIEL WARD, 17th of April, 1860.

IX.—DISEASES, ETC., OF THE DUCTLESS GLANDS.

SUB-SECTION I.—SPLEEN.

1. *Cases in which masses of adventitious material were found in the spleen, having the characters of what have been termed abroad leukhæmic tumours.*

The specimens brought before the Society were portions of six spleens, which were greatly enlarged by the presence of an albumino-fibrinous material within their substance, either in a diffused form, or accumulated in masses or blocks. Several of these had been immersed in spirit and water for a long time, and had come under my special notice and attracted my attention whilst engaged in the examination, microscopically, of the various old preparations in St. George's Hospital Pathological Museum, with a view to newly cataloguing them. I brought them forward in connection with the cases of diseased lymphatic glands which I have related to the Society (see section of Tumours, Enlarged Glands, &c., p. 247, in the present volume), in commenting upon

which, I alluded to the observations of Virchow, Freidreich, Wunderlich, &c., upon the lymphatic glands, as the seat of morbid changes, and upon the nature of those changes, respective of the supposed anatomy and physiological functions of the glands.

I will at once proceed to the description of the above-mentioned specimens, and to the relation of the cases connected with them, postponing my remarks upon them until I shall have described them in detail.

SPECIMEN I. was part of a lightish-coloured mass from the spleen, of which the *microscopical appearances* were as follows:—It contained great numbers of nucleated corpuscles, apparently having exactly the same characters as the ordinary white blood-corpuscles, or the (so-called) leucocyte bodies,* only varying somewhat in size,—some being somewhat smaller, and others somewhat larger. In addition to these elements, a few curled nucleated fibres (evidently from the splenic structure) were seen, and, at times, spindle or club-shaped fibres, and also occasional large, round granular yellowish forms, five or six times the size of pus cells, with, here and there, masses of hæmatine. The bulk of the material, however, consisted of the above-named leucocyte bodies or corpuscles, which were in many cases aggregated and surrounded by a species of cell-wall, which constituted a kind of investing capsule to them, as collected together.

The spleen, which was of unusually large size, measuring about eighteen inches long and about six or seven inches broad, contained several masses of the albumino-fibrinous material, which appeared to occupy almost the entire substance of the organ.† The parts thus occupied varied much in colour, some portions being quite uniformly white, others punctated with blood-vessels, and others of a mottled-red and white colour.

On *post-mortem examination*, in addition to the condition of the spleen alluded to, consolidation of the lungs was found; and also quantities of soft, and evidently recently-formed fibrinous material, was met with, attached to the surface of the mitral valve-flaps of the heart (which was enlarged), and projecting much into the left auricle and ventricle, the valve-flaps being themselves structurally unaffected. The kidneys were dwindled and otherwise diseased, and numbers

* I adopt the application of the word leucocyte made by Robin, as explained by himself (see Brown-Sequard's "Journal of Physiology," Vol. II., p. 42, where is an excellent and most interesting communication on the "Physiology and Anatomy of Leucocytes, their distribution in the economy, their form and composition, origin, relation to the red globules, hypertrophy, disappearance,") &c.

† Preparation of the spleen now in St. George's Hospital Museum, as No. 2 b, Sub-series v., Series xix.

of small fibrinous deposits were found beneath the serous covering of the kidneys.

History.—The specimen was removed from the body of a woman, E. K., æt. 28, who, having been previously in good health, had, three years before admission into St. George's Hospital, vomited much blood, and suffered from pain in the limbs. She, however, had never had rheumatic fever. Since then palpitation, headach, and giddiness had supervened; and, on admission, besides general debility and wasting, evidence of enlarged heart, with diseased valves, existed. The urine was albuminous, and anasarca, and paroxysmal dyspnoea and blueness of the lips preceded death.

SPECIMEN II. was part of a spleen, the whole of whose substance was infiltrated by a quantity of granular, amorphous material, but in which no "large" masses or blocks of fibrine existed. A thin layer or mass, in a laminar form, was, however, found at one part near the surface.

On *microscopical examination* the granular amorphous material was found to contain numbers of very small, round, and oval, nucleus-like bodies, with here and there occasional nucleated corpuscles of the same nature as the white corpuscles or leucocytes.

The circumference of the spleen lengthwise was twenty-seven inches and a-half, and round the middle it was eighteen inches. When recent, the cut surface was firm and mottled.* Two additional small spleens were found connected by areolar tissue with the large spleen, and these minor ones were also affected in the same manner as the larger one.

On *post-mortem examination*, small masses of scrofulous deposit were found in the lungs, but nothing worthy of note was met with in connection with other organs.

History.—The specimen was removed from the body of a man, W. G., æt. 42, who was admitted into St. George's Hospital with a sallow complexion, albuminous urine, anasarca, and slightly bloody sputa. Excepting attacks of "epistaxis," he had enjoyed good health until a few weeks previously, when he was affected by pleurisy; and, after this, he first perceived a swelling, as he said, "under the left ribs." On admission, the left half of the abdomen was found to be occupied by an enormous tumour. After a time, hæmoptysis and profuse perspiration, and also "epistaxis," came on, and he sank and died.

SPECIMEN III. was part of a spleen which, besides being infiltrated by albumino-fibrinous material, contained this material in the form of masses. In these masses, numbers of round and oval leucocyte-like

* Preparation of the spleen now in St. George's Hospital Museum, as No. 3 b, Sub-series v., Series xix.

bodies were also found, as in the former specimens described. In this case the splenic artery was found to be very atheromatous, and the capsule of the spleen very thickened and opaque.* In addition to the affection of the spleen, evidence of considerable pleurisy and disease of the kidneys was found after death.

This specimen was removed from a man *æt.* 41, who died with diseased kidneys, pleurisy, &c., and was exhibited by me to this Society in the Session 1851-52; and in my description of the microscopical appearances then given, it will be seen † that I spoke of the adventitious material, containing “*great numbers of oval and round, and elongated cells having a nuclear appearance.*” At that date, I had not examined the other and older specimens of diseased spleen in our Museum microscopically, and, consequently, could not compare this specimen with them histologically; and thus, of course, I did not know to what extent the presence of these peculiar corpuscles was common or not in the albumino-fibrinous material so often found in the spleen.

SPECIMEN IV. was portion of a spleen containing the albumino-fibrinous material, both in the infiltrated and the accumulated form.

Microscopical examination showed, that the white masses (some of which were surrounded by dark blood-lines or fringes), contained numbers of leucocyte-like bodies, as in the former specimens. In this case the spleen measured ten inches and a-half in length, and fifteen inches in circumference, and weighed three pounds six ounces. The liver was very firm and bloodless, and weighed six pounds five ounces, and the great omentum was very hard and thickened by fibrinous deposit. The kidneys were in a general waxy state, and contained several miliary fibrinous deposits. The arteries of the kidneys were very atheromatous.

History.—This specimen was removed from the body of C. K., *æt.* 57, of whom nothing was known, except that she had been ill for seven months, suffering from ascites and anasarca following jaundice. When admitted into St. George’s Hospital, the liver and spleen were felt enlarged. The patient died very gradually by asthenia.

This specimen was (like Specimen III.) also previously described by me in the “*Transactions of the Society,*” ‡ but I find that I then omitted to state the histological composition of the adventitious mass.

SPECIMEN V. was part of a spleen affected in the same way as those from which the previous specimens were taken. When recent, this

* Preparation of the spleen now in St. George’s Hospital Museum, as No. 4 *b*, Sub-series v., Series xix.

† *Transactions*, Vol. III., p. 337.

‡ Vol. III., p. 355.

organ measured fourteen inches long, and twenty-six inches in circumference at its broadest part; and weighed five pounds and a-half. Its capsule was very thickened, and at one part of cartilaginous hardness.

Microscopical examination showed, that the amorphous granular material, both infiltrated and accumulated, contained numbers of small round and oval nucleus-like bodies, and also occasional bodies like white corpuscles or leucocytes.* Quantities of dark-red granular material could be squeezed from the open veins of the organ, and this was seen to consist of granular and amorphous material, containing oval and round semi-transparent bodies, some being like simple vitreous bodies, and others being laminated and regularly concentric. Some of them possessed a dark centre. None were affected by the addition of hydrochloric acid or of tincture of iodine.

History.—The specimen was removed from the body of a man, T. W., æt. 22, who had perceived a tumour in the left side of the abdomen for seven months before admission into St. George's Hospital. This had greatly increased of late, and been attended by considerable pain. During all this time the patient had been much subject to "epistaxis." He had never had ague. During life the white corpuscles were found to constitute about one-fifth of the entire corpuscles of that fluid.†

SPECIMEN VI. was part of a mass of very different character from the five specimens above described. In this case the whole mass was rounded, of about the size of a nutmeg, projecting from the surface of the edge of a spleen, and surrounded by a dense fibrous capsule of about the thickness of cartridge paper.

The contained mass was composed of a light-coloured gritty material, and I found, *on microscopical examination*, that the greater part of it consisted of granules and globules of fatty material along with granular

* Preparation of spleen now in St. George's Hospital Museum, as No. 1 b, Sub-series v., Series xix.

† The number of white corpuscles relatively to the red ones in healthy blood, is given differently by different authors; and, of course, in disease, the proportionate number will vary very considerably. I imagine, that in health it may vary considerably in quantity, just as may the fibrin or other elements of the blood. I find that in Dr. Kirke's "Hand-Book of Physiology," 1848, p. 50, it is stated, that in healthy blood the average is of *one* white to fifty of the red corpuscles, but that in disease it is often as high as *one* to ten. Welcker (Präger Vierteljahrschr., No. IV., p. 11), found the relative number in his own person to be as one to three hundred and forty-one; and in a healthy girl, aged nineteen, as one to one hundred and fifty-seven. Molleschott considers the average number in man to be as one to three hundred and fifty-seven (Wiener Wochenschr., No. 8); but he found white corpuscles in the splenic blood in the proportion of one to four and nine-tenths, although spleen-cells may have been inadvertently admixed. The number of white corpuscles, according to him, is below the average in the aged and in people fasting, and in females not menstruating; but above the average in the pregnant and menstruating women, or in children and men eating much albuminous food.

amorphous albumino-fibrinous substance, containing “*great numbers of large and small-sized leucocyte-like bodies, and also highly refracting nucleus-like bodies,*” as well as, occasionally, rounded granular opaque bodies, some (but not all of them), being possessed of nuclei. The spleen itself was very unusually firm and dark in colour. No similar deposit was met with in any other organ of the body; but a “nutmeggy” state of the liver with granular kidneys, and recently-formed fibrinous exudation-material was found within the serous cavities. No scrofulous deposit existed in the body.

History.—The specimen was removed from the body of a woman, æt. 40, who died in St. George’s Hospital, and I have classified it in our new Catalogue amongst the deposits and growths in the spleen, of uncertain character.*

Although not certain, I am yet of opinion, that this is an instance of one of the albumino-fibrinous masses which has undergone ulterior changes and become, as it is termed, obsolete; fatty and calcareous matter being formed, as is so frequently the case, under certain conditions, in old-standing deposits, &c.

Remarks.—Such are the various instances which in our pathological collection I have met with, illustrating the presence of masses of infiltrated material containing in variable proportions numbers of white corpuscles or so-called leucocyte bodies. I had once or twice previously found, that the fibrinous clots not infrequently met with in the veins within the cranium after death, contained an assemblage of great numbers of light-coloured corpuscles very like, if not identical with, the white corpuscles of the blood. Indeed, in one case so general were they, that I could scarcely find any other structures whatever within the clot. Moreover, I had observed their extensive existence in other fibrinous accumulations also. Consequently, I was not altogether surprised in examining the spleens above alluded to, to discover that these albumino-fibrinous masses were in many cases the seat of these bodies. It was not so, however, in all cases, several of such masses or infiltrations in various spleens being quite free from such minute forms; and, therefore, it is far from me at present to assert that their existence is in reality anything but exceptional.

In reviewing the particulars of the above descriptions as well of the life-histories, as of the pathological alterations met with after death, many points of resemblance may be noticed.

Thus, out of the six cases, three are expressly stated to have been attended by spontaneous loss of blood during life, in the cases con-

* Preparation of spleen now in St. George’s Hospital Museum, as No. 1 *d*, Sub-series v., Series xix.

nected with the Specimens II. and V., they were attended by epistaxis, and in Case I. by hæmatemesis; of the remaining three, Case VI. presented indications of very slight morbid alterations, and, therefore, the omission of any specific symptom allying it with other such cases may well be anticipated. In Cases III. and IV. no accurate knowledge of symptoms was obtainable.

This spontaneous evacuation of blood from mucous surfaces is of importance for consideration, and I have seen this symptom in other cases also, of enlarged spleen which I have not described in the above series.

General debility or asthenia, wasting, and anasarca, &c., are amongst the most prominent symptoms in the various histories; and this along with the frequency of hæmorrhagic loss of blood* points, as might be expected, to some peculiar condition of the blood. I regret much that only in a single instance (Specimen V.) does the life-history enable me to state the noticed relative proportion of the white to the red corpuscles of the blood. In one case only was there any indication of a consumptive tendency, (See history of Specimen III.) and in none any tendency to carcinoma. It is noticeable that albuminous urine existed in several of these cases.†

As to the ages of the various subjects of the affected spleens none are younger than twenty-two, or older than fifty-seven. It is not a little remarkable, that in 'none' of the cases was there history either of ague or rheumatic fever.

As respects *post-mortem* changes in addition to the alterations in the spleen, it is singular that in all the six cases, the kidneys were found highly diseased, being dwindled away and granular, &c., &c. In only one case was any fibrinous material found adherent to the heart's valves; whether the albumino-fibrinous material found effused into the various organs affected in the several cases, as the liver, the different cavities, the lung (in one case) omentum, kidney, &c., contained similar histological elements to the large masses in the spleen, I am unable to say, as I had no opportunity of examining them. The presence of such bodies may prove in such deposits more common than is supposed. It is curious to observe, that in Case No. II., the supplementary or additional spleens were the seat of effused material containing similar cell-forms; and the presence of the peculiar microscopical bodies observed in the clot, squeezed from the veins of the spleen described as Specimen V. must not be disregarded. In none of the masses or infiltrated material

* I have at the present time a man of middle age under my care, with leukæmia, whose liver and spleen are both of them exceedingly enlarged, and who has been several times the subject of epistaxis. In his case there has been no ague.

† In the case alluded to in the foot-note above, the urine is quite free from albumen.

could I detect any remains of starch or allied formations by means of the ordinary reactions.

In conclusion I would remark, that although in the above cases several other organs were found affected in various ways besides the spleen, yet, in none have we the history of any disease of the lymphatic glands. Consequently, although affections of these glands might have existed to a slight degree, yet, it is fair to assume that no very extensive implication of their structure had taken place.

Dr. JOHN OGLE, 20th of December.

SUB-SECTION II.—SUPRA-RENAL CAPSULES.

2. *Disease of the supra-renal capsules. Absence of bronzing of the skin.*

The following is a well-marked case of supra-renal disease. It was attended by all the usual symptoms of the affection, with the exception of bronzing of the skin; and nothing of any moment was discovered after death, beyond disorganization of the supra-renal bodies, to throw light upon its nature. It tends to confirm the value and general truth of Dr. Addison's observations, but, at the same time, to show that discoloration of the skin is *not* an invariable or necessary accompaniment.

R. T., a printer, æt. 18, was admitted on the 19th of October, 1857, under Dr. Goolden's care. His account was, that he had been ill three months, prior to which time he had enjoyed perfectly good health, had been living well in Gray's Inn Lane, and had not been on night-work.

His complaint was of constant vomiting and rapid emaciation. He also suffered from occasional severe headach of a neuralgic character, giddiness, and frequent rigors.

He was in no distinct pain anywhere, but suffered much from thirst. He had occasional slight diarrhœa, but never hæmoptysis or cough.

His appearance was slightly flushed and feverish. Tongue red, covered with yellow fur. Pulse 100. Urine plentiful and normal in constitution. No tenderness in the epigastric region. Thoracic viscera apparently healthy. He was constantly, but more especially in the morning, vomiting a glairy mucus tinged with bile.

He continued nearly in the same state until the 7th of November, although the vomiting was but little checked by treatment, and the emaciation became considerable.

November 7th. He was suffering from severe temporal headach. The vomiting was more constant, and the other symptoms unchanged. He continued without material alteration until his death, which appears to have been by exhaustion, on the 18th of November.

Post-mortem examination.—Height, five feet six inches; weight, seven stone two pounds; spare, but not emaciated. The general complexion was brownish; but there was nothing at all resembling bronzing, and no local pigmentary deposits.

Calvaria dura mater and brain, for the most part healthy. There was no congestion or excess of fluid; the vessels at the base were sound, and the substance of the organ normally firm. The cerebellum, however, at three points, was firmly attached to the dura mater by old adhesions; so that on removing it portions were left attached to the parietes. One of these points was just beneath the torcular Heróphili, the others were symmetrically placed between the base of each petrous bone and its junction with the basilar.

Pericardium and heart healthy. The left ventricle contained a minute fibrinous coagulum, the right a considerable mass. The left lung was firmly adherent in the greater part of its extent, and the right pleura presented numerous firm adhesions. The lungs were of ordinary size, crepitant and healthy, though congested throughout. Larynx, trachea bronchial tubes and glands all healthy. Aorta healthy.

Peritoneum free from recent disease. The liver was of ordinary size, and very firmly attached by old adhesions to the diaphragm. It was uniformly congested, and of a rich dark-brown colour throughout, but healthy. Spleen firmly adherent to surrounding parts, and enclosed in a thickened capsule: it was of ordinary size, dark-coloured, and rather firm. Pancreas healthy. Stomach and intestines healthy throughout, except that the ileum presented several tracts, in which the mucous membrane was considerably congested; and the rectum contained a good deal of hard fæces. There was no affection of the solitary or of Peyer's glands; and the mesenteric and other abdominal lymphatic glands appeared to be healthy. The kidneys were of usual size, congested throughout, but otherwise healthy. Bladder healthy. The right supra-renal capsule was increased in thickness, but on the whole not much hypertrophied. It presented no appearance of healthy tissue, but consisted of nodules of buff-coloured material (precisely resembling these which constitute knotty tumours of the liver), varying from the size of a pea downwards. They were well defined, and surrounded by dense fibroid tissue. The left supra-renal body was about two inches in length, and varied between three-quarters and half-an-inch in thickness. It consisted partly of fibrinous masses like, but larger than, those observed in the right one; and it presented, moreover, several masses of putty-like or mortar material, and a little hard earthy deposit; the whole being blended into one mass by intervening dense greyish fibroid tissue. This organ also presented no trace of healthy structure.

Microscopic examination.—The tubercle-like deposit consisted of a kind of fibrillated material, studded with granular matter and small refractive masses, having a distant resemblance to nuclei. In some parts also, bodies presenting all the characters of compound granular cells, were present. The mortary material consisted chiefly of molecular matter, a considerable part of which dissolved with effervescence in acetic acid.

Dr. BRISTOWE, 6th of December, 1859.

3. *Supra-renal capsular disease. Bronzing of the skin.*

J. S., a shoemaker, æt. 20, first came under Dr. Peacock's notice at the Victoria Park Hospital, and on the 27th of February he was admitted into St. Thomas's Hospital. He then stated, that he had been severely indisposed for six weeks, but he had been ailing for three months previously, and his complexion had been noticed to have become much darker during that period. His only complaint was, however, of debility. His skin was in all parts of a peculiar dark brown colour, and this was the more striking as he had naturally a fair skin, with light hair and blue eyes. The darkness of the skin varied in different parts, being particularly intense on the forehead, down the course of the spine, especially in the dorsal region, and at the posterior part of each upper arm; there was no distinct margin separating the darker from the lighter portions, but, on the contrary, they gradually shaded into each other. He was extremely feeble and complained of general debility, and was usually found lying down on the bed. His pulse was 96 and feeble, the respirations 24 and performed with little power. He had a slight cough but no expectoration, and stated that his breathing became hurried on active exertion. On examination of the chest no marked deficiency of the resonance on percussion was detected in any part, but there was some want of expansion beneath the clavicles, and the respirating sounds were feeble, but these peculiarities were probably only due to the general want of power. His tongue was clean, his appetite good, indeed it afterwards appeared to have been inordinate; the food taken was readily digested, the bowels were somewhat torpid. There was no icteroid tinging of the conjunctivæ. He passed water in full quantity and the urine had the specific gravity of 1012, and was not albuminous. He stated that during early life he had had fits, and some years previously disease of the hip with abscesses, of which there were cicatrices on the hip and groin. The limb was shortened. His father and mother were both living, and the family were asserted to be free from predisposition to phthisis. A neighbour afterwards stated, that he was always a delicate boy, and incapable of any active occupation, and that he had failed in health and became

much darker in complexion for fully six months before his death. While in St. Thomas's Hospital he was allowed a generous diet, and was put upon a tonic course of treatment.

On the 7th of March, he was taken with sickness followed by diarrhoea and became much prostrated. On the evening of the 8th, he had an attack of what was described as screaming convulsions, but was sensible immediately after. On the following morning he had a similar but slighter attack. He was seen by Dr. Peacock shortly after, and found much collapsed but quite intelligent. His pulse was extremely feeble. His complexion was still darker than before. Shortly after being seen he was seized with a third convulsive attack and rapidly died.

Owing to the rule which forbids the examination of patients who die at St. Thomas's Hospital, without the permission of their relations, the body could not be opened, and it was only after much persuasion that the kidneys and supra-renal bodies were allowed to be examined, but by mistake, the former were removed, while the latter were left in. By visiting the house to which the body had been taken, Dr. Peacock obtained liberty to re-open the abdomen, and with the assistance of Mr. Hughlings Jackson, removed the supra-renal capsules.

The supra-renal capsule on the left side was adherent to the pancreas, and, though part of that organ was cut off, the supra-renal body was ruptured in the process of removal, and a considerable quantity of creamy fluid with a small pulpy mass escaped from it. The body was much emaciated, but the abdominal organs, on superficial examination, appeared healthy. The supra-renal bodies and a portion of skin from the back were removed and forwarded to Dr. Bristowe for further examination.

The following are the notes obligingly furnished by that gentleman:—

“The supra-renal bodies were considerably larger than natural and firmly adherent, the left to the extremity of the pancreas, the right to the corresponding kidney.

“Each consisted of dense, tough, glistening fibrous walls circumscribing an irregular anfractuons cavity. The walls varied in thickness from about the third of an inch downwards, and on the outer side were formed in part by the surrounding infiltrated cellular tissue; on the inner they presented opaque, white, softish granulations. Under microscopic examination they were found to consist of closely and irregularly arranged fibrous tissue, together with here and there numerous clustered nuclear bodies, somewhat like, but inferior in size to, pus corpuscles; and not similarly affected by acetic acid. The nuclear elements were chiefly situated on the inner aspect.”

The contents of the cavities had escaped when the specimens were

submitted to Dr. Bristowe for examination, the only portion remaining being a cheesy mass with a soft pulpy surface, of irregular form, and nearly as large as an almond. This consisted chiefly of granular nuclei, and oil in a molecular condition. Dr. Bristowe adds, "I believe that each supra-renal body had been the seat of a scrofulous abscess. The whole of the natural structure of the organs were destroyed."

The portion of skin removed displayed a great excess of pigment.

Dr. PEACOCK, 3rd of April, 1860.

4. *Extensive extravasation of blood into both supra-renal capsules. Absence of bronzing of the skin. Epilepsy, idiocy, &c.*

The two supra-renal capsules exhibited to the Society were very highly congested, and both of them were occupied as to their central parts by a quantity of extravasated blood, which had completely broken down their proper texture.*

History.—A man, æt. 43, had been for some time an idiot, and an epileptic. For two weeks before death he had almost had a continuation of epileptic seizures night and day, and immediately previous to death was extremely comatose. There was no discoloration of the skin.

Post-mortem examination.—Slight pleuritic effusion and red hepatisation of one of the lungs was met with. The cranial bones and the brain with its membranes were healthy; but the veins of the scalp, and also the cerebral veins and sinuses, were exceedingly full of blood.

The above specimens were sent to me by Dr. Boyd, Resident Physician at the Somerset Asylum, who had met with them in one of his Asylum patients. From his letter to me, I believe that he has met with similar extravasation of blood into the supra-renal capsules in several other cases of cerebral congestion and apoplexy.

Dr. JOHN OGLE, 3rd of April, 1860.

5. *Lardaceous disease of the supra-renal capsules.*

These specimens were exhibited to the Society in order to show the fact, that the supra-renal bodies may be invaded by lardaceous disease, or waxy matter, in the same way as the other viscera. They came from a man who had long suffered from syphilitic caries of the frontal bone and general cachexia, and at last died with a liver immensely enlarged by lardaceous disease, and the kidneys and spleen similarly affected. The supra-renal bodies were also large and remarkably firm, and thus contrasted strongly with the soft condition in which they are so often found;

* These Preparations now exist in St. George's Hospital Museum, as Nos. 1 and 2, Sub-series xiv., Series xviii.

they in fact, exactly resembled the lardaceous liver in consistence. The microscope showed, that the whole organ was infiltrated by this peculiar glistening material, but which, however, did not much affect the structure. The specimen, therefore, did not at all bear on the pathological question respecting actual disease of the bodies, and even, indeed, had they been considerably involved, probably no very characteristic symptoms would have been produced, seeing that other important organs of the body were likewise affected ; for in such a case, the difficulty of appropriating to each its respective share in the symptoms or fatal result would have been just as great as in examples of general tuberculosis or carcinomatous affections.

Dr. WILKS, 20th of March, 1860.

X. — MISCELLANEOUS SPECIMENS, INCLUDING MALFORMATIONS OF OUTWARD PARTS, SPINA BIFIDA, DISEASES OF THE SKIN, ENTOZOA, EFFECTS OF POISONS, ETC.

1. *Pelvis and nerves from a patient who died of tetanus.*

Mr. Wells performed a plastic operation on the perineum of a patient, æt. 51, on the 2nd of November, 1859, in the Samaritan Hospital. Tetanic twitching of the lower limbs came on four days after the operation. This increased slowly in intensity, and after eleven days there was slight trismus. Difficulty of swallowing followed on the twelfth day, opisthotonus on the thirteenth. The account of the treatment is published in the *Proceedings of the Royal Medical and Chirurgical Society*.

The whole of the pelvis was removed, and carefully dissected by Mr. Cooper, of the London Hospital School. Neither the hypogastric plexus, nor any of the nerves given by it to the lower part of the bladder or rectum affording signs of inflammation. The sacral canal was laid open from behind, and the *cauda equina* and sacral nerves appeared healthy ; except in the vicinity of the united wound, and in the mucous coat of the bladder, there was no trace of inflammatory change in the pelvis. The mucous surface of the bladder was speckled with small blood-stains, grouped in patches, and apparently seated in the substance of the mucous membrane. The gastric mucous membrane was found in a similar state, owing probably to the fact, that the woman had been for forty-eight hours before death almost constantly under chloroform.

Mr. SPENCER WELLS, 6th of December, 1859.

2. *Specimens of joints affected by gout, demonstrating certain results arrived at in the morbid anatomy of the disease.*

Dr. Garrod divided them into the four following classes:—

1. *Cases of chronic gout, exhibiting extensive chalk-stones in different parts of the body.*

Most of the joints in such subjects were found much altered. The surface of the articular cartilages appeared to be covered with a white paint, as also many of the ligaments; the synovial membrane also was frequently dotted over with small masses of the same deposit. On closer examination it was found that the white matter could not be rubbed off, but that it was within the substance of the cartilage and ligamentous tissues. The matter was proved to consist of pure urate of soda, which was invariably found in a crystalline form, in needles, and to be infiltrated in the cartilage, not often extending towards the osseous tissue beyond one-third of the thickness of the cartilage, and a thin membrane, was generally able to be demonstrated on the free surface of the cartilage covering the deposit. The long-continued action of hot distilled water or of a solution of an alkaline carbonate was found to dissolve out the urate of soda, and from the watery solution the salt could be again crystallized in its original form. Its chemical nature was readily demonstrated by its leaving an alkaline ash when burnt, which exhibited the reactions of soda, and by its yielding the murexide test when heated with nitric acid and ammonia.

2. *Cases of gout exhibiting points of deposition, or small chalk-stones on the ears only, and no appreciable deformity of the joints.*

In such subjects, many of the articulations were altered in character as before described, those found free were joints which are not usually attacked by gouty inflammation. When the history of the cases were known, the correspondence was complete between the parts which had inflamed, and the presence of the morbid matter.

3. *Cases of gout in which there was a complete absence of chalky matter externally, and no deformity of any joints; in some of those subjects, only a few attacks of gout had been experienced.*

In all such cases it was found that, whenever an articulation had been inflamed, the appearance of the white urate of urate was present, and it was thus clearly demonstrated, that parts may become greatly encrusted without showing any external alteration.

4. *Cases of gout where one joint only had been affected, or in which a single attack of gout had occurred in any part.*

These cases confirmed in a remarkable manner the conclusions to which the earlier cases pointed; for in one, only a single joint, namely, the ball of the left great toe, had been affected with gout, and even then the disease had not been severe, still the surfaces of the metatarsal bone and phalanx were sprinkled over in a marked degree, and a spot was likewise observed on the ligament, although the articulating surfaces of the sessamoid bones were quite free.

Remarks.—From an investigation of these cases, which were numerous, Dr. Garrod considered that the fact was established beyond doubt, of gouty inflammation being invariably accompanied with the deposition of a peculiar salt (urate of soda) in the inflamed tissues, thus proving gout to have a specific character, and to differ entirely from the various other morbid affections with which it has often been confounded.

Dr. Garrod was of opinion, that not only is the deposition of urate of soda constantly found in gouty inflammation, but that it stands in relation to it, as cause rather than effect.

Dr. GARROD, 6th of December, 1859.

3. *Organs removed from a patient who had been treated with nitrate of silver for epilepsy.*

These were taken from a man well-known to most of the Members of the Society; he had been an inmate of nearly all the London Hospitals, and, with a view of curing the epilepsy to which he was subject, had been castrated by Mr. Holthouse, at the Westminster Hospital.

A history of the case, before the man had been subjected to castration, is contained in the *Lancet* of the 22nd of January; but in the *Lancet* of February 12th, 1859, there will be found some valuable additional remarks on his case by Dr. John Ogle. Since his castration, his epileptic fits had been quite as frequent as before, if not more so. About the middle of September, 1859, he was found dead in his bedroom in Tooley Street; having apparently had a seizure during the act of dressing.

Mr. Sydney Jones was unfortunately unable to procure an inspection of the whole of the spinal cord; only the upper three inches were examined and found healthy.

The brain generally was very much congested, and serous fluid was found in abundance beneath the membranes and in the ventricles. The choroid plexuses were remarkably dark: from their surface could be scraped a brownish-black soot-like material; a similar substance was found lying quite free in the cavity of the fourth ventricle, apparently

detached from the choroid plexus. A specimen of metallic silver had been obtained from the plexuses, and was exhibited at the meeting.

The asperities at the base of the skull were very much and irregularly developed; for instance the right orbital plate of the frontal bone was very rough, the left one being comparatively smooth; the petrous portion of the right temporal bone did not present anything worthy of notice; but that of the left side presented very sharp projections, indenting the under surface of the brain, and scratching the cuticle when the finger was passed over them.

The thoracic viscera were of a decidedly blue colour. The lining membrane of the heart, especially of its right cavities, was very dark. The larynx and trachea were filled with frothy mucus.

The liver, and especially the lining membrane of its veins, was very much stained. The microscope showed black deposit diffused through the substance of the organ; this deposit however did not seem, as in the kidneys, to have selected any particular structure.

The kidneys had, on section, a very remarkable appearance; being studded everywhere with crowds of black spots, evidently discoloured Malpighian tufts. A thin section constituted, under the microscope, a very beautiful object, and the mammillary processes were seen to be of a dark slate-colour.

The deposit infiltrating the Malpighian bodies and mammillary processes was found, by Dr. Moldenhauer, to be sulphuret of silver.

SYDNEY JONES, M.B. 17th of *January*, 1860.

4. *A dissected specimen of non-congenital club-foot. Talipes equino-varus of paralytic origin.*

This specimen was removed from a female subject in the dissecting-room of the Westminster Hospital, æt. 76. The deformity was well marked, the foot being quite doubled up, so that the outer side would have touched the ground in walking, and the heel being considerably raised. The leg exhibited to the Society was the left, but the right one was inclined to the form of talipes equinus in a slight degree. The whole limb was atrophied, the foot being very small and evidently having never been used in progression. The toes were bent upon themselves, and presented no corns or other marks of pressure. Inquiries were instituted as to the history of the case, and elicited a statement that the affection was congenital; but considering the great age of the subject and that the inquiry was only made after her death, this may be doubted, as the appearances were more those of paralysis, probably occurring in infancy or early childhood.

On dissection, all the muscles were found to be small and pale in colour, fat being deposited in considerable quantities between the several muscles, and also in streaks in their substance; but none of them were so fully converted into fat as in some of the specimens described in this Society's Transactions.

The tibialis anticus was the best developed muscle, and its tendon, of the usual breadth, was tightly stretched on the least attempt to unfold the foot.

The tibialis posticus and flexor digitorum were not so well developed, the tendons being smaller than usual. The flexor longus pollicis was of good size. The inner division of the plantar fascia and its subjacent muscles were much contracted, and maintained the bow of the foot in great part.

The muscles of the calf were fatty and ill-developed, and the posterior extremity of the os calcis was raised considerably above its proper level.

The peronei muscles and the extensors of the toes were small in size, pale, and fatty.

The posterior tibial vessels and nerve were normal in position, but the anterior tibial artery and nerve were displaced to the outer side of the tendons of the extensor digitorum at the ankle-joint, though regular above.

Neither the skin nor any of the tendons showed any marks of operative interference.

Microscopic examination of the muscles showed varying degrees of fatty degeneration. Healthy fibres were to be found in each muscle, especially, in the tibialis anticus, but many of the fibres were pale, indistinctly striated and contained oil-globules.

Mr. CHRISTOPHER HEATH, 7th February, 1860.

5. *Chronic rheumatic arthritis.*

The different specimens and casts of deterioration of joints, effected by the disease variously denominated by authors as nodosity of the joints, crackling of the joints, rheumatic gout, chronic rheumatic arthritis, usure des cartilages articulaires, morbus coxæ senilis, rheumatoid arthritis, &c., were obtained from the body of an unmarried female, æt. 69, who died in a public institution.

All the joints of the limbs were affected, but those of the head vertebræ, and ribs were not examined.

She designated herself a martyr to rheumatism for fifty years, during the last fifteen of which she was almost helpless and quite bedridden. It is certain that during these fifteen years, the hands retained pretty

much the form which the models exhibited to the Society showed; and the elbows, knees, and hips, appear to have undergone no particular external change during that period. She was cheerful, complained little of actual pain except when moved, and the intellect was clear to the last. The subject of this case was the oldest thus affected, seen by the author, the youngest having been four years and a-half old.

The hands well-illustrate an usual form assumed by these parts in this disease. Cruveilhier ("Anat. Pathol. Livr." 34, pl. 1.); Dr. Adams, of Dublin, ("Rheumatic Gout," pl. 6.); Dr. Garrod, ("Gout and Rheumatic Gout," Fig. 23, page 53) have given representations of similar hands. (See Woodcuts 35, 36.) They throw light on the causation of deformities of the hands in general. They exhibit special differences from hand contraction produced by paralysis, spasm, or disease of palmar fascia.

In all these forms of hand contraction, flexion of carpus and fingers more thoroughly predominates over extension, whilst in chronic rheumatic arthritis it is perceptible, that during the continued repose occasioned at some times by pain, at other times by the feeling of powerlessness so characteristic of the disease, the whole of the muscles, extensors as well as flexors, not being kept in order by the exercise of volition, gradually retract themselves and shorten the members. It is true that in the long run, in the majority of instances (as in Fig. 35) there is more of flexion than of extension, but an examination of the second phalanx of most of the fingers, shows that the extensor muscles have resisted the flexors. Hence an extended condition of the second phalanx of the fingers and thumb is a peculiar feature of advanced chronic rheumatic arthritis of hands. An approximation of the ulnar border of hand and fingers towards the ulnar side of the forearm is also very marked in many cases.

More minute description of the exterior of the hands.—The hands are typical of the deformities produced by chronic rheumatic arthritis. Both hands and arms are much attenuated, appear free from adipose tissue, the skin unfilled-out, laying in folds, especially upon the anterior or palmar surface, and the prominences of the bones unduly salient. Except as regards leanness, they are of the ordinary size and development of a person of the stature of the subject from which they were taken. The right hand is the more severely affected. They are in the position of semi-promotion, the carpus and metacarpus being also very slightly flexed upon the forearm. The great amount of attenuation causes the outlines of the dorsal aspects of the metacarpal bones and of the extensor tendons of the fingers to be unusually evident. The

dorsum of the metacarpus is in both less convex than when in the normal state convexity of the part is voluntarily produced. Nodosities do not constitute prominent objects in these hands, they can be detected however at most of the articulations, especially at the first joint of the right thumb, and the metacarpo-phalangeal joints of index-fingers. The hands differ in the direction of, and in the amount of deviation of the fingers and thumbs. In the *right* (Woodcut 35), the metacarpal and first bone

WOODCUT 35.



of thumb are flexed and adducted, the terminal bone of the thumb being extended to an angle of 45° , and the front of the terminal articulation resting upon the outside of the middle articulation of the ring finger. The inferior extremities of the metacarpal bones are very prominent, especially that of the forefinger, the first bones of all the fingers being luxated into the palm and flexed, and this is also partially the case with the first bone of the thumb. The degree of flexion varies; in the index, the first bone is flexed to a right angle, each succeeding finger being increasingly bent. All the fingers are moreover adducted; *i.e.*, drawn towards the ulnar margin to an angle of 45° . The second phalanx of the index and of the little finger are slightly extended, that of the middle finger is interfered with by the buttress-like opposition of the front of the extremity of the thumb against its palmar surface, the second bone of the ring finger is more extended than the rest, apparently

owing to the partial insinuation of part of the thumb between it and the middle finger. The end joint of the index is slightly flexed and the corresponding joints of the middle, ring, and little finger are extremely bent. The terminal bone of the thumb is not only extended, but its superior extremity is dislocated towards the palmar surface. The ligamentous connections of this joint are loose, the bones being consequently moveable upon each other in any direction.

The left hand appears more deformed about the wrist, owing probably to enlargement of, or arthritic deposit on, the anterior surface of the lower extremity of the ulna, the hand generally is less bent than the opposite, the luxations at the metacarpo-phalangeal articulations being confined to the index and middle fingers. (Woodcut 36.) The meta-

WOODCUT 36.



carpal joint of the forefinger is particularly enlarged. There is no material alteration in the direction of the thumb. The first phalanx of the fore and middle fingers is bent to an angle of about 45° , the second phalanx of these fingers extended, and the terminal phalanx bent, especially that of the forefinger. The ring finger is slightly bent at the metacarpo-phalangeal joint, but the individual bones of this finger are in a straight line with each other. The little finger—like the index—follows the rule of old rheumatic degeneration, the first phalanx being bent, the second extended, and the third flexed. Unlike the right hand, and indeed unlike rheumatic hand-deformity in general, the fingers of this hand are not approximated to the ulnar side of the wrist, but on the contrary, the entire hand (and fingers) are distinctly, though only in a slight degree, drawn towards the radial margin.

Dissection of the right hand and arm.—The wrist permitted very slight movement of flexion and extension, none of adduction or abduction. This limitation of movement appeared to be due to the more irregular, oval deeper cavity or end of radius being fringed with bony excrescences and to the existence of a considerable supernumerary bone attached to the ulnar side of the radius. The lower end of the radius measured across its anterior aspect one-and-a-half inch, the hand in its general dimensions being that of a small-sized female. The carpus was



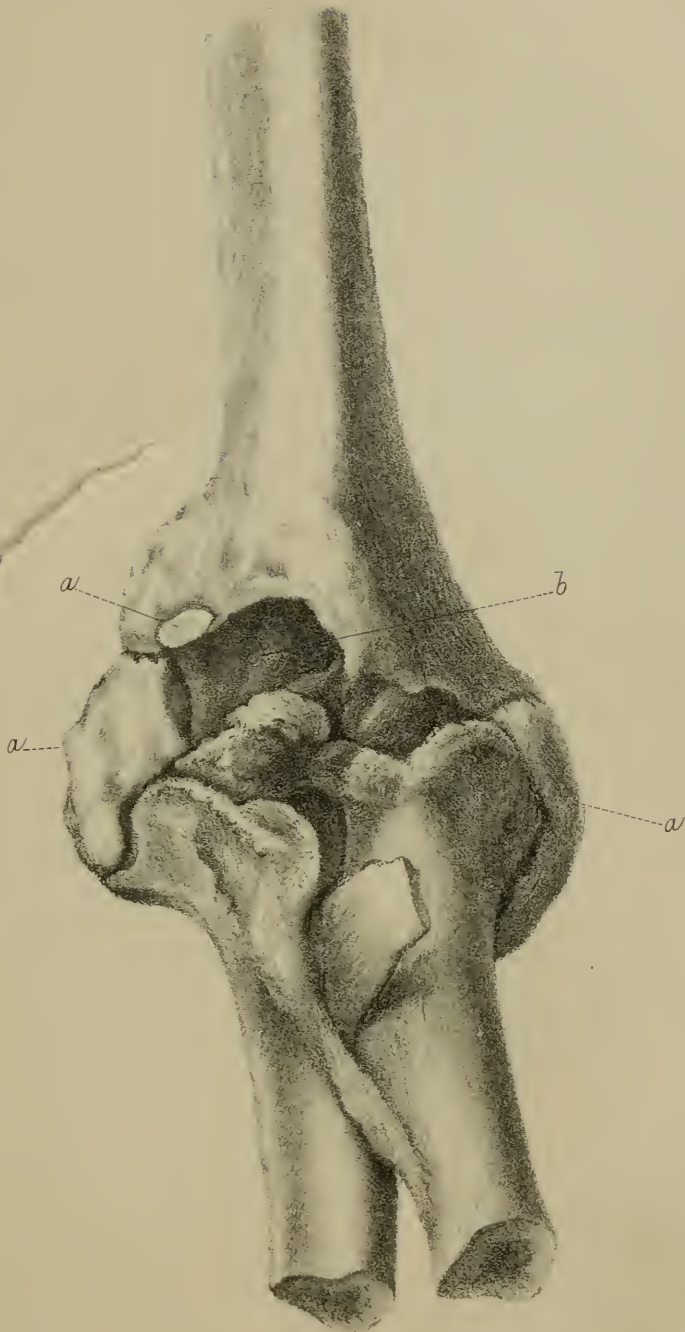
DESCRIPTION OF PLATE IX.

Illustrating Dr. Little's case of Rheumatic Disease of the Elbow Joint, p. 289.

A front view of the elbow-joint is represented, opened to show the semicircular cavity occupying the place of the trochlea of the humerus.

a a a. Supernumerary bones.

b. The vascular triangular body in the joint, which, when recent, was of a florid red colour; it is an incompletely calcified supernumerary body.



with difficulty separated from the radius, owing to the interlocking of the radius with the irregularly-formed surface of the scaphoid, and to the numerous firm adhesions connecting these bones within the articulation. The synovial membrane and adhesions were red and vascular; the articulating cartilages in some parts partially, in others wholly removed. The bones were eburnated where no cartilage remained. Longitudinal sections of terminal articulation of the thumb and of the metacarpophalangeal articulation of the forefinger showed uniform soft adhesion and undue vascularity of the opposing surfaces of the bones, disappearance of cartilages, destruction of the articulations; and enabled the luxations visible before dissection to be better appreciated.

The left elbow was much enlarged, deformed, and when handled, "felt like a bag of bones." It was moderately bent, the forearm semi-pronated. The olecranon and condyles felt as if enlarged. On dissection this was proved to be the case as regards the olecranon, but the apparent enlargement of the condyles was due to the addition of two large nodulated supernumerary bones, respectively, seven-eighths of an inch and one inch in their longest diameters. The trochlea of the humerus had entirely disappeared, its situation being represented by a large concavity, (Plate IX.), in which the eroded coracoid process worked against the partially abraded humerus. In front of the coracoid process, within the articulation, was a triangular-shaped, pink-colored, incompletely calcified foreign body, and further within the joint were several soft vegetations, variously shaded pink and scarlet. Some apparently recent crystals of urticaceous (?) deposit were observed on these vegetations. Here and there in front of the joint, and external to it, a small loosely-attached bony and cartilaginous nodule was found.

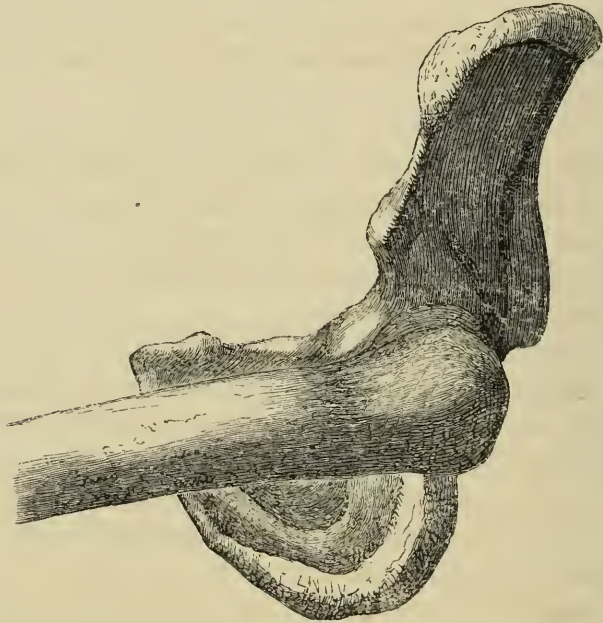
The right elbow was similarly affected. It can scarcely be said to have possessed an articulation, the trochlea had equally disappeared, and supernumerary formations existed; but as this elbow was mechanically injured after death, a fuller description is not entered upon.

The knees and hips were severely affected. The former occupied the usual position of severe chronic rheumatic degeneration, *i.e.*, were semi-flexed, the inner side of the joints prominent, the tibiæ and fibulæ drawn outwards and backwards behind the femur. For many years the inside of the knees had been firmly pressed against each other, and during the last three weeks of life, this pressure had caused sloughing of the integuments, the resulting wounds having, two days before death, laid open the joints. The position of the thighs during life and after death was as follows:—The right, slightly flexed, was in a tolerably straight line with the trunk, and slightly rotated outwardly; the left, more flexed and rotated inwardly, lay over towards its fellow; there was considerable prominence of the left hip.

The left hip, after removal of fleshy parts,—the capsular ligament remaining unopened,—showed very little, if any, change of situation of the acetabulum or head of the femur. The joint was all but immovable.

The femur was so much flexed and inverted as to lay in a line parallel with the neighbouring part of the superior brim of the pelvis. (Woodcut 37.) The femur was also distinctly rotated inwardly. The neck

WOODCUT 37.



of this bone and the trochanter bore a proper relation in size and position. A soft, ligamentous, red vascular tissue united almost the entire surfaces of the head of the femur and acetabulum to one another: no trace of special ligamentum teres existed. Dr. Adams, of Dublin, who has most ably and fully described the morbid anatomy of this complaint, states the thigh to be commonly abducted. Now, in the morbus coxæ senilis, in the stage in which surgeons are apt to be consulted by patients who are moving about with more or less difficulty, it is true, as Dr. Adams describes, that the foot is everted and the thigh abducted; but this preparation shows, what is often observable in patients reduced to helplessness from rheumatoid arthritis, that the limb may become unduly flexed, adducted, and rotated inwardly. One is tempted to inquire whether the disease termed morbus coxæ senilis,—a single joint of the body being thus often for many years alone affected,—be pathologically identical with general rheumatoid arthritis, in which, often, every articulation of the limbs, the cervical vertebræ, and the maxilla are simultaneously involved, both in the young and in the aged.

The bones of the left knee, when sawn through, appeared light and brittle, containing much gelatinous adipose matter: after maceration with weak alkaline ley, their form was much altered, from quantities of earthy particles and spicula crumbling away from them on handling. The posterior and inferior parts of the condyles were much reduced in size by *usure*; the patella was of natural size and form; was firmly adherent to the front of the external condyle; the upper portion only of the trochlea of the femur remained. The fragments of the head of the tibia and fibula appeared to have separated at epiphyses; no trace of the natural articular surface of the tibia remained.

This affection is now generally admitted to differ essentially from other forms of rheumatism and gout; and it is justly believed to be incurable, except, perhaps, in the incipient stage.

The author has observed many cases, and has witnessed more benefit from the use of iodide of potassium in old subjects, and cod-liver oil in the young, than from other internal remedies. When the complaint reaches the stage of distortion and sub-luxation, with loss of use of hands and feet—a state of things very rapidly attained in the young—mechanical support by means of leather, papier-maché, or gutta-percha splints and bandages, judiciously applied, affords the greatest assistance to the lower extremities. The author has been enabled to restore several persons past the meridian of life to a considerable degree of activity for lengthened periods, by the combined internal and external use of iodine and mechanical support.

The points to which the author especially desires the attention of the Society are—

1. That in severe general advanced chronic rheumatic arthritis, the second phalanges of the fingers and thumb are *extended*, the remaining parts of the member being flexed. This peculiarity has been witnessed in so many instances, that it may be regarded as pathognomonic of the advanced affection.

2. That regard being had to the formation of supernumerary bones more or less firmly attached to the ends of the condyles of the humerus and femur, the question arises, whether these are always absolutely new formations resulting from the articular disease, or whether they are not sometimes to be regarded as portions of the original bones separated at the line of union of the epiphyses, or separate points of primary ossification of the bones, and subsequently hypertrophied during the progress of the affection? In the elbow-joints exhibited, no stretch of imagination is required to suppose that the bodies figured *a* and *b*, Plate IX., were thus produced. The history of this individual is not opposed to this

view: she was attacked by the disease before the age of twenty, this being the age at which complete ossification of the condyles to the remainder of the humerus takes place. It seems consistent with the pathology of the osseous system to infer the probability, that the occurrence of chronic rheumatic arthritis before the normal ossification is complete, may arrest that process, simultaneously with the occurrence of a morbid deposition of calcareous and plastic materials, from which result bony and fibrous nodules, and supernumerary bones in other parts of the joint.

3. That this disease is apt to occur in the very young, as well as in the middle-aged and aged.

4. That as regards the diagnosis of the disease in the hip, when it assumes the form designated "morbus coxæ senilis," if it be admissible that these diseases are identical, this case shows, that in the advanced stage, when locomotion is impracticable, the limb may be inverted and not everted, as in the early stage of the complaint.

Dr. LITTLE, 21st of February, 1860.

6. *Several casts and drawings, showing the growth of cicatrices proceeding parâ passû with the rest of the body.*

Four casts, exhibiting cicatrices on the feet, were taken from the same case, at an interval of eight years. When the child was two years old, he was brought to Mr. Adams to be cured of club-feet, which had been operated upon, without benefit, a year previously, not by the division of tendons, but by removal of a large portion of skin from the convexity of the foot, in the hope that the deformity might be cured by the contraction of the cicatrices drawing the feet outwards. As the result of these operations, each foot at this time exhibited a cicatrix measuring two inches in length. This child, now a boy ten years of age, has been brought to London again, and Mr. Adam's observed that the cicatrix on each foot had grown fully an inch in length, but has retained its linear character, *i.e.*, without increasing very perceptibly in breadth. Each scar has therefore grown one inch in eight years; and this fact was demonstrated by the casts exhibited.

The next case was that of a young lady, now nineteen years of age, who has a cicatrix on the chest, at the present time measuring three inches in length, and one inch and a-quarter in width. It is situated between the clavicle and the breast.

When she was a baby only one year old, Mr. Adams had assisted Mr. J. H. Green to remove a small, but rather deep-seated nævus from this situation. The scar left by this operation was about an inch and a-quarter in length, so that in eighteen years this cicatrix has more

than doubled itself in length, and, unlike the cicatrix previously described, it has also remarkably increased in width, varying at different parts from three quarters of an inch to one inch and a-quarter. This may perhaps depend upon the growth of fat, and expansion in all directions in this region of the body, the young lady being very stout. At the time of the operation, it was supposed that a very small scar would be left, which would either wear out or not be conspicuous in after life; but the disfigurement at the present time is very great, and, from the situation of the scar, the young lady is unable to wear a low dress.

Mr. Adams observed, that the rate of growth, as demonstrated by these cases, did not appear to be sufficiently known to surgeons, or considered by them when performing operations on children in exposed portions of the body, the general opinion being, that scars either remain stationary or wear out; and it is true that the scars of some slight wounds do wear out to a certain extent; but after deep wounds, or when a portion of skin has been destroyed, the cicatrix appears to be persistent through life, and to grow *pari passu* with the rest of the body, or rather with the portion of the body over which it may be placed.

Vaccination scars in the adult are frequently seen from half to three-quarters of an inch in diameter; and there can be no doubt that this size has been attained by growth of the cicatrix. We may also occasionally see a large bald patch on the scalp of an adult who has had a small *nævus* removed from this situation during childhood, and many other illustrations might be given.

Surgically speaking, if the rate of growth of cicatrices be borne in mind, pains may be taken to make the scar as small as possible when operating upon children, especially in exposed parts of the body; and, by various sub-cutaneous methods, *nævi* may be generally destroyed without using the knife, and a cicatrix altogether avoided.

In a pathological point of view, the growth of cicatrices by assimilation, proceeding in their structure precisely in the same manner as in the healthy tissues of the body has been accurately described by Mr. Paget, in his "Lectures on Surgical Pathology," Vol. I., p. 49. He has also pointed out the fact that "the scar of the child, when once completely formed, commonly grows as the body does, at the same rate and according to the same general rule, so that a scar which the child might have said was as long as his own forefinger, will still be as long as his forefinger when he grows to be a man."

Mr. ADAMS, 21st of February, 1860.

7. *Effects of poisoning by sulphuric acid on the fauces, œsophagus, stomach, and duodenum.*

History.—The specimens were removed from the body of a gentleman's servant, T. H., æt. 33, who had lost money by betting. All that was further known of him was that he was observed to stagger and fall in the streets. He was at once brought to St. George's Hospital, when it was found he had taken oil of vitrol. The lips were corroded, as well as the fauces; and in using the stomach-pump, shreds of mucous membrane were brought away adhering to the tube. The patient was in a state of collapse, from which he never rallied; and he died nine hours after admission.

Post-mortem examination.—Much turbid fluid was flowing from the mouth; and the mouth and lips, and portion of the chin were charred and desiccated, but the surrounding skin was unstained.

On examining the "abdomen," I found the external surface of the ileum very discoloured, being in some places pink, and in others of a uniform greenish hue. The omentum contained much fat, and on turning up the stomach, the under surface was seen of a streaky-pink colour, the veins showing through very distinctly. The stomach contained about a pint of reddish acid fluid. The large amount of the mucous membrane of the stomach was but little affected, being of a slight rose colour, but in various parts, specially along the smaller curve of the viscus, and around the pylorus, the mucous membrane was quite destroyed, being chiefly of a black-charred look; in other parts it was of a dark reddish-brown colour. The summits of the folds of rugæ of the mucous membrane were to a great extent of the same colour.

The duodenum presents the same appearance having one portion of its surface quite roughened, and somewhat hardened, the glands in the neighbourhood being very prominent.* In no case was the muscular coat affected. The other abdominal organs were natural.

On examining the pharynx, œsophagus, &c., the tongue was found to be but little affected, but the fauces were very vascular. The entire length of the œsophagus was very highly congested and in parts, especially along the posterior portion of the tube, was of a very dark colour. At the upper part, shreds of tolerably firm white membrane were found attached to the surface, floating loosely.†

Microscopical examination showed these white shreds to contain great numbers of nuclear bodies and debris of mucous membrane.

* Preparation of the stomach and duodenum now in St. George's Hospital Museum, as No. 9, Sub-series iv., Series xxxii.

† For preparation of the œsophagus, see No. 2, Sub-series iii., Series xxx.

The epiglottis, and mucous membrane about the upper part of the larynx was slightly thickened, and of a pinkish colour.

On examining the thorax, some congestion of the lungs and vascularity of the upper part of the air-passages was found, but nothing more.

Remarks.—One point of special interest in this case, is the suddenness with which the symptoms came on; the man being observed to stagger and fall in the streets. This quite accords with the extent of the post-mortem appearance, as no doubt from the latter, the poison had been taken in a very concentrated form, and in tolerably large quantity. That the concentrated acid could not have been taken very long prior to the patient's falling down poisoned by it, is proved by the fact, that whilst the mucous membrane of the affected parts was injured, corroded, &c.; the muscular tissue was intact, and nothing like ulceration had been set up. It was observable, that the blackening produced by the acid was not merely the result of its influence upon the blood contained in the vessels, but the result of charring of the mucous membrane itself.

Dr. JOHN OGLE, 6th of March, 1860.

8. *Two heads of tape worms, probably of the species Tænia Medio-canellata.*

The specimens agreed with the description given by Kuchenmeister, of the heads of *Tænia Medio-canellata*; they appeared larger, as did also the sucking discs which were darker than the same parts of *Tænia Solium*. One head was obtained from a soldier by Dr. Adams of Her Majesty's 22nd Regiment, the worm having made its first appearance in India. The other was expelled from a young woman under Dr. Leared's care.

Dr. LEARED, 20th of March, 1860.

9. *Hydatids of the omentum, surface of the spleen and other parts, two of which caused perforation of the diaphragm. Probable rupture of hydatid cyst in the abdominal cavity during life. Minute characteristics of the hydatid formations.*

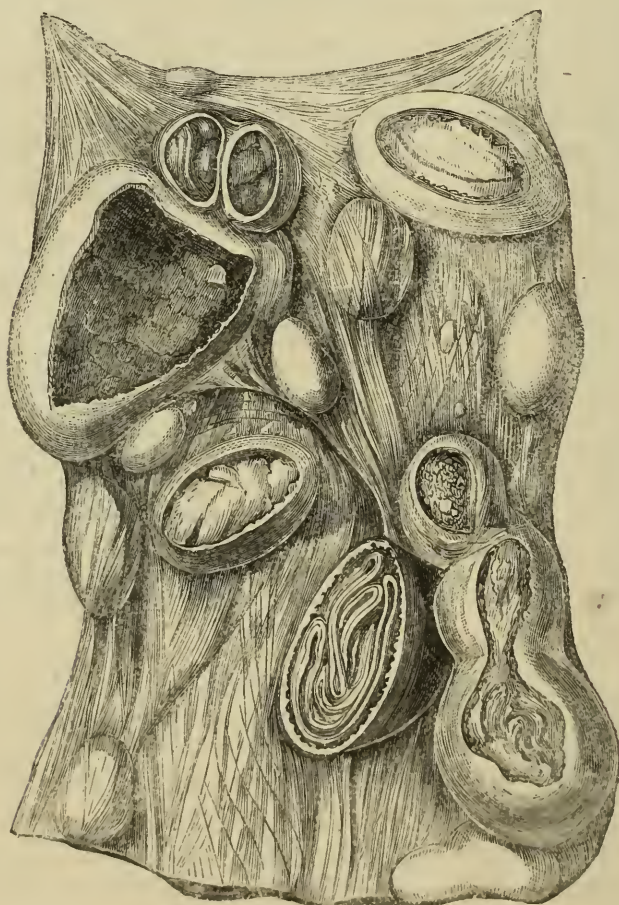
The following case was related in connection with the drawings of hydatid formations in the omentum and attached to the spleen, exhibited to the Society.

History.—The patient, J. F., æt. 22, was admitted under Mr. Hawkins' care into St. George's Hospital, with a very large abdomen containing several tumours, which could be felt from without. The abdomen diminished whilst the patient was taking iodide of potassium;

but one day whilst playing in the Hospital-garden the patient fell, and immediately felt an excruciating pain in the whole of the abdomen, and was removed to bed in a state of collapse. After some time he recovered from the collapse, but symptoms of peritonitis set in which eventually were removed. After leaving the Hospital he was re-admitted, owing to erysipelas of the face and head, of which he died.

Post-mortem examination by Mr. Prescott Hewett.—On examining the abdomen, the recti muscles were found to be greatly separated by the contents of the abdomen; and the diaphragm pushed up as high as the fourth rib on the right side. Numerous hydatid tumours of various sizes were found in the substance of the omentum (Woodcut 38),* and

WOODCUT 38.



Represents a portion of the omentum crowded with the hydatid tumours.

almost every part of the abdomen was occupied by similar cysts. Of

* Now in St. George's Hospital Pathological Museum, as No. 1 k, Sub-series vii., Series xxxiii.

the two largest ones, one had encroached greatly upon, and was partly embedded within the liver; whilst another had actually produced absorption of the right portion of the diaphragm, and was found in the pleural cavity compressing the corresponding lung.* On the left side a smaller cyst had caused absorption of the diaphragm, and protruded into the thorax immediately below the heart.

One hydatid cyst with walls of about the thickness and consistency of cartridge paper was met with, attached to the surface of the capsule of the spleen. (Woodcut 39.)†

WOODCUT 39.



Represents the hydatid tumour sessile upon the surface of the spleen.

On *minute microscopical examination* of the hydatid cysts from various parts, they were found to contain material of very diverse characters; the contents were in some cases transparent and thin, whilst in others, they were very dark and thick, and viscid, as if decomposition had occurred. These walls were of very variable thickness, some being semi-transparent, and expanded, whilst others were thick and opaque, and corrugated.

In many cases great numbers of these cysts were quite shrivelled up, and collected together in a single cavity; and many of the cavities were

* In Museum, as No. 9, Sub-series vi., Series xxxi.

† In Museum. See Series xix.

found to be lined by a whitish semi-concrete material, which I found under the microscope, after immersion for many hours in spirit to contain much fatty and granular particles, capable of being partially dissolved by dilute hydrochloric acid. From the inner surface of some of the cyst-walls projected lobulated cauliflower-like growths of the same colour for the most part as the parent membrane, the largest being of about the size of a walnut. Some of these out-growths, which here and there were very opaque, were found to consist of a vast number of small hydatid cysts accumulated, and assuming various forms from mutual pressure; mostly being, as it were, pedunculated, when separated from each other. All these minute cysts contained fluid, and here and there opaque white albuminous matter, along with, in many cases, numbers of rounded light-refracting bodies of various sizes. *In none were any hooklets visible.* Occasionally the inner surface of the cyst-walls was shreddy, having, as seen under the microscope, a granular and fatty character. Some cysts were full of nothing, but the shrunken and closely-packed cyst-walls of minor cysts; and between several contiguous cyst-walls, in the case of these hydatids connected with the liver, a quantity of concrete or gummy substance was seen, of a bright yellow, and in others of a dark-brown colour. This gummy substance was found to contain numbers of large round dark masses of a finely-granular nature, besides numerous small glistening round and cell-like bodies, fatty matter, and cholestearine. No hooklets could be detected within it. The yellow colouring-matter was evidently owing to that of bile admixed, and the dark brown to a kind of pigment, possibly originally derived from extravasated blood, disposed in irregular masses.

Remarks.—One point in the history of this case was worthy of remark, viz., the falling down of the patient whilst in good health, and the sudden appearance of intense pain and the usual symptoms of peritonitis which supervened, apparently as a result. The mode of invasion of these symptoms, the superficial position, and the perfect exposure of the numerous hydatid formations within the cavity of the abdomen to the effects of outward violence, render it almost certain, that by the accident some rupture of one or more of the hydatid cysts had occurred. This might easily happen, and the contents if liberated might become absorbed, and the results of local or general peritonitis after a period of time removed.

One or two other cases have occurred in St. George's Hospital, in which hydatids were found in the substance of the omentum. One especially was of interest in the year 1850.* The case was that of a man, æt. 35, who had had jaundice, and had passed much bile and

* See our Post-mortem Book for 1850, No. 35.

albumen in the urine. In this case the hydatids were developed to an enormous extent between the layers of peritoneum, forming the lesser and great omentum. There were also found in other parts of the abdomen connected with the peritoneum, and some of these contained offensive purulent fluid; the liver was also found to contain numerous small collections of purulent matter. Possibly the presence of pus in the liver had a consequential relation to the purulent collections in the hydatid cysts; just as abscess of the liver has been in some cases referred to dysentery.

Dr. Ogle, in allusion to the general subject of hydatids in various parts of the body, also alluded to one or two other instances rarely met with, which had existed at St. George's Hospital; of these, one was a cyst containing a vast number of smaller ones found within the substance of the "*spinous process of the seventh cervical vertebra*," projecting upon the spinal cord, and producing symptoms not unlike cancer. In this case there were also a few hydatids within the cancellous structure of the body of the vertebra.* Another was an instance like the one described above in one respect, viz., that the hydatid cyst found its way by ulceration from the abdominal into the thoracic cavity. It was the case of a shoemaker, æt. 25, who attributed his illness to a kick on the lower part of the right side. After death, the right pleural cavity contained a very large amount of fluid, in which a hydatid cyst of the size of a marble was found; and this collection of fluid communicated by a small ulcerated orifice in the diaphragm with a large hydatid cyst in the right lobe of the liver. This case occurred in the year 1855.

A curious case is mentioned in the Hospital records for 1843 (No. 194), of post-mortem examinations, in which a cyst existed in the liver containing what appeared to be a hydatid membrane folded on itself along with bile-stained fluid, and "*also several biliary calculi*." There is also the record of a case of hydatids of the womb. This occurred in the year 1844.

Dr. JOHN OGLE, 15th of May, 1860.

10. *Cases of spina bifida.*

CASE I.—Showed extensive sloughing of the surface of the cyst, which was full of half coagulated but soft and spongy fibrinous material, filling up the interstices between the various nerves passing across it. In this case there was deficiency of ossification in the *two last dorsal and the two uppermost lumbar* vertebræ, and the various nerves emerged

* Specimen now in St. George's Hospital Pathological Museum, as No. 1, Sub-series iii., Series iii.

from the opening into the sac in a single bundle, and in a very softened state passed backward to the wall of the sac.*

History.—The specimen was from the body of a boy *æt.* 15 months, who, up to two days before death had enjoyed comparatively good health, the tumour having several times been punctured with temporary benefit. Before death, sloughing of the sac and convulsions came on.

The mother of the boy had been subject to fits of some kind when a child, and her sister had given birth to an infant with malformation of the fingers.

CASE II.—Presented a deficiency of the laminæ of the *two upper sacral* vertebræ, the cyst communicating with the spinal canal by a centrally-placed opening of the size of a shilling, through which a large bundle of nerves passed across the sac to its outermost and most posterior part.†

History—The specimen was from the body of a female child who was born dead (a breech presentation). In this case the latter stages of labour were lingering, and the child appeared to have died from pressure upon the umbilical cord. There was also found talipes varus of the right leg, and the bones of the head were very loose and fluctuating; but the measurements of its various parts were not much greater than usual.

The mother was very strumous, with a large head, and had had several miscarriages. Of her three children, one had died with convulsions after whooping-cough, and the remaining one was hydrocephalic. Three of the mother's sisters lost children by convulsions.

CASE III. was of the utmost interest, as it exhibited a very unusual projection or curvature backwards of the spinal column at the part which corresponded with the sac itself. The sac showed that considerable adhesion had existed between the spinal membranes. The various posterior nerves observed their proper lateral direction from the point of their first entrance into the sac, passing to the posterior part of the sac's walls.

The excessive projection above alluded to was evidently caused by projection of the bodies of the vertebræ at the part where the laminæ were defective; but to a certain degree this curvature diminished in acuteness on pressure, after that the various muscles at the inner part of the lumbar and pelvic region had been divided.

On sawing through the spine longitudinally, the projection was found

* The preparation is now in St. George's Hospital Pathological Museum. See Catalogue, Sub-series xv., Series iii.

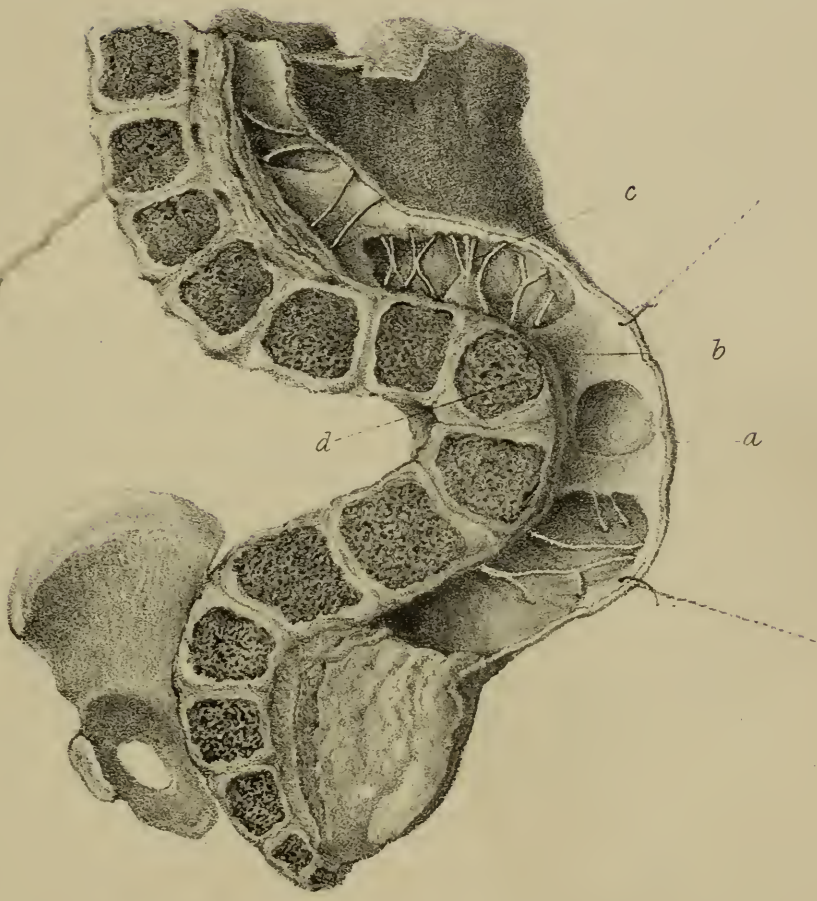
† See St. George's Hospital Pathological Museum Catalogue, Sub-series xv., Series iii.



DESCRIPTION OF PLATE VIII.

The Figure represents an antero-posterior section of the lower part of the Spinal Column, in Dr. Ogle's case of Spina Bifida associated with Curvature of the Spine, p. 301.

- a.* The outer or posterior boundary of the sac.
- b.* Delicate transparent membrane intersecting the sac.
- c.* Branches of nerves crossing the sac.
- d.* Body of the second lumbar vertebra, partly undeveloped especially, at its anterior portion.





to be owing to a "*considerable deficiency in the anterior part of the body*" of the second lumbar vertebra, so that the two adjoining ones, *i.e.*, the first and the third were all but brought into contact with each other at their anterior parts, appearing to push back, as it were, the intervening deficient (the second) vertebra. The state of the bony parts (the extreme curvature, owing to the approximation of the first and the third vertebræ) is represented in Plate VIII. The preparation now exists in St. George's Hospital Pathological Museum.*

History.—The specimen was removed from the body of an infant, who was born with a breech presentation. The mother had had symptoms of abortion at an early period of pregnancy. The child had a hydrocephalic state of skull, and there was, moreover, talipes varus in both of the feet.

CASE IV. was one in which the laminæ of *most of the sacral, all the lumbar, and one or two of the dorsal* vertebræ were defective. In this case the nerves, in passing through the sac to its posterior walls, observed their lateral position throughout. No particular history existed.

Remarks.—The case of greatest interest among the above, is the one marked No. 3. I am not acquainted with any other instance placed on record, in which along with non-ossification of the laminæ of the vertebræ, a similar want of development of the body of the bone co-existed so as to produce along with the soft tumour permitted by the "bifid" spine a curvature of the spinal column. In the present instance I suppose that the curvature was simply the result of the incomplete development of the body of the vertebra—at least, as regards the anterior parts of the body; the single centre of ossification provided for that part not acquiring accession in an anterior direction. In this way (although in every other direction the ossification might be progressing in a natural and sufficient manner) the anterior part of the body would offer but feeble resistance to the pressure from above or beneath, and thus at this part the adjoining vertebra would be allowed to approximate to each other, intruding upon the intervening structure. In this way, a curvature in a posterior direction might be induced; but its formation might be further assisted, and I think it was in the present case, by the pushing or pressing backwards of the ossifying portion of the body of the intervening vertebræ, permitted by this approximation of the two vertebræ. It would also be yet more determined by any irritation of the nervous structures in this defective region which might be occasioned in any way by the morbid changes going on; the local irritation bringing about such spasm of the strong muscles in front of the lower part of the

* See Catalogue, Sub-series xv., Series iii.

spinal column as might have the effect of drawing the various vertebræ towards each other, or towards the pelvis. This element in the causation of the curvature occurred in the present case, I was led to think; for in examining the specimen, I discovered the lumbar and other deeply-seated muscles in a state of considerable rigidity, and found that on dividing them I could with much more readiness reduce in part the spinal curvature.

For three of the above specimens, with their histories, I am indebted to the kindness of my friend Mr. John Ewens, of Milton-Abbass, in Dorsetshire.

Dr. JOHN OGLE, 15th of *May*, 1860.

11. *Portions of skin and muscle from limbs affected with Elephantiasis Arabum.*

The specimens were four in number, and were taken from three separate cases. They were kindly forwarded to me by my friend Mr. Francis Day, Civil Surgeon at Cochin in Madras, who is now taking the opportunity of inquiring whether any relationship can be established between the Elephantiasis Arabum and the E. Græcorum. Within the period of six months he had no less than fifty-one cases under treatment.

From his notes I have gathered the following connected history of the cases above alluded to.

SPECIMEN I consisted of a slice of integument and immediately subjacent structures from a case of ulcerated elephantiasis, for the cure of which amputation of the leg was resorted to at Cochin. The limb from the base of the toes as far up as half-way to the knee, was covered with ulcers, of which some were already healed, others were healing, and some were sloughing—some small nipple-like elevations also existed. When recent, the integument (excepting that covering the sole of the foot and the toes which were unaffected) when cut into was found to be of great thickness, varying “*from one to three inches*” in depth, and of gristle-like hardness. No fluid escaped from it when cut into. The more external parts (from a quarter to one-third of its depth), were of a reddish colour, as if blood were lodged there; whilst under the ulcerated parts or nipple-like projections of the skin, this appearance extended deeper down. Beneath the reddish parts all portions were white. Subjacent to this condensed structure, and between it and the proper fascia of the leg, a quantity of yellowish fluid existed, evidently infiltrating the areolar tissue; as also between the fasciæ of the muscles, although to a slighter degree. This fluid after being about ten minutes in a gallipot was converted into a clear jelly, and on being boiled passed

into a dense white milk-coloured coagulum, having a slight degree of clear fluid on the top. The addition of nitric acid did not cause any change in it. All the blood-vessels of the limb were pervious and quite unaltered in size. The lymphatic vessels could not be traced. The gastrocnemii muscles were of a yellowish colour, but the other muscles had a natural appearance. The patient was doing well as regards the amputation of the leg.

SPECIMEN II was a portion of the above-mentioned gastrocnemius muscles.

SPECIMEN III. Like the former one from a leg which had been amputated at the thigh.

In this case the limb was increased in size as high as the knee. The whole of the anterior of the foot was covered by a large ulcer. The toes were enlarged and hard, but the sole of the foot was unaffected.

On cutting into the integument it was found to be about one inch and a-half in thickness at the calf, and about two inches thick at the ankle; that portion nearest the knee being the softest, and amongst it at this part spots of fatty material existed. A small amount of fluid was found to ooze out from the thickened part. The blood-vessels and the blood itself were natural, but "*the nerves were increased in size.*"

SPECIMEN IV. was a portion of integument from a case of incipient elephantiasis, the subject of which died of general dropsy following malarious fever.

Microscopical examination of all the foregoing specimens showed that scarcely any of the constituents of true skin could be detected. It is true that the portions sent were not large in size. The pigment was very dark and plentiful. The consistence and thickness of the sub-cutaneous tissues were owing to the infiltration of a quantity of albumino-fibrinous material: this presented abundance of granular amorphous matter containing numbers of fibres and occasional corpuscular elements, somewhat of the size of, and smaller than pus-cells. The portion of muscle showed the natural striæ of voluntary fibre in abundance everywhere; but the areolar tissue amidst the various bundles of muscular fibre was very unusually plenteous and tenacious.

Mr. Day makes the following observations regarding the disease:—

"The coast is a damp low-lying one, and elephantiasis of the limbs (but not of the scrotum) is very common, the number of native Christians in Cochin affected by it, being about 1 in every $17\frac{1}{11}$ th, and about 1

in every 19^{ths} of the Portuguese, males and females being equally affected: in many cases all the limbs are affected at the same time.

“A kind of fever almost invariably occurs, possessing a cold, a hot, and a sweating stage, is present, coexisting with which a bubo is almost always found in the affected limb; and it is subsequent to the fever that the effusion in the leg comes on.

“These effusions appear to be of three varieties:—

“1. Simple œdema; 2. Albuminous effusions; 3. Organizable (fibrinous) one.

“In such cases, amputation in the several years of 1854, 1857, and 1858 have quite removed the disease, no return occurring. In old-standing cases treatment appears unavailing.”

Mr. Day proposes sending to England an entire limb as a typical specimen of the Cochin leg, or Elephantiasis Arabum; and I should propose, in the coming Session, to submit it to a Sub-Committee of the Pathological Society for careful and minute examination.

It also seems to be very desirable, considering the character of the products effused in these cases into the sub-cutaneous and into muscular textures, to examine particularly into the general condition of the blood, and the condition of the heart and blood-vessels, as well as the various viscera as regards the deposition of albumino-fibrinous material, whether in the form of general infiltrations or solid masses or blocks distinctly outlined. It is possible that some similarity might be established between this form of disease (the elephantiasis), and those varieties of disease with which we, in England, are so well acquainted, in which deposits of an albumino-fibrinous material are met with, spontaneously precipitated, as it were, in the blood-vessels, on the flap of the heart valves, and in the various, so-called, parenchymatous and other organs of the body.

Dr. JOHN OGLE, 15th of May, 1860. †

12. *Milk secreted from the axilla.*

The specimen of milk exhibited was obtained from the axilla of a patient, M. S., æt. 37, who came under Dr. Hare's observation as an out-patient of University College Hospital.

She first observed a swelling in the right axilla on the night of her last confinement, the 2nd of February 1860, when she was delivered of her seventh child: no similar swelling had appeared on the occasion of any of her former confinements. The swelling was “nearly the size of half a walnut” when first noticed and continued of about the same size and somewhat painful, for a month, when it began to discharge a small quantity of a milky-looking fluid and had continued to do so since, without notably diminishing in bulk. The swelling was found on

examining the patient, on May 14th, to be of an ovoid shape, about the size of a large filbert, and situated a little to the outer and posterior part of the axilla; it had a somewhat doughy feel, was compressible, and less hard than an enlarged gland usually is: the skin over it appeared perfectly normal. Besides itself, there was no other swelling or induration in either axilla. On pressure, a small quantity of a fluid exactly resembling milk made its escape from an opening so small as not to be distinguishable until the appearance of the fluid showed its locality, and then it seemed as if it came through one of the sweat-ducts. A fifth or a sixth of a drachm (at least) was collected in the course of a minute or two, and on placing a drop of it under the microscope, it presented all the characters of true milk and nothing like a pus corpuscle was visible.

There could, therefore, be no doubt whatever of the fact of milk coming from the axilla, and all the evidence seemed to be in favour of its being secreted from a portion of mammary gland situated at that spot.

Not a few cases of multiple mammæ are on record, but instances similar to the above appear to be of extreme rarity. One case somewhat like it is recorded in the *Dictionnaire des Sciences Médicales*, tom. xxx., p. 377.

Postscript.—The swelling in the axilla presented much the same appearance and characters as those already described, when the patient was again seen so lately as September, 1860, and the discharge of milk still continued.

Dr. HARE, 15th of May 1860.

XI.—SPECIMENS FROM THE LOWER ANIMALS.

1. *A monocolus lamb which had recently been dissected.*

It was obtained on the 20th of December, 1859, from a sheep killed at the Zoological Gardens. It was a twin, its weight being twelve ounces, that of its fellow twenty-four ounces.

Externally it presented the following peculiarities. A small round head without mouth or ears; one eye on the anterior and lower part of the forehead, six lines in diameter. Proceeding from the head were two spinal columns closely united as far as the lower part of the neck, where they diverged, forming two spines, with twenty-six ribs attached to each. Each body was supplied with four limbs of a normal character. The tails were of the usual length.

The single eye weighed fourteen grains; the crystalline lens was but imperfectly formed; the cranial cavity contained serum, and about

fifteen grains of material of a pulpy consistence. The trachea commenced at the upper and central portion of the neck, and terminated in two well-developed lungs. One heart was present, and bore a normal relation as regards size and position, to the lungs. The aorta divided into two branches, both passing along the spine between the kidneys; the calibre of the right was nearly double that of the left; each bifurcation was at the usual place. A large inferior vena cava passed from under the single large undivided liver, which organ weighed two hundred and eighty grains. A small gall-bladder was present. Two kidneys with two well-developed supra-renal capsules, as well as two testicles, were present in each body. There were, likewise, two stomachs with four cavities in each—two intestinal canals without cœca, and only five inches in length; to both stomachs a spleen was attached; neither œsophagus nor pancreas could be detected, nor was there any trace of a thymus, or of a thyroid gland.

The trachea, heart, lungs, and liver were single, and the other existing organs double. The blood-corpuscles, as in all foetal lambs, were larger than in the adult, but in other respects no peculiarities were observed in the blood.

Dr. CRISP, 13th of January, 1860.

2. *Hydatids in an old Honduras turkey.*

The bird had been a long time at the Zoological Gardens.

The liver and spleen were found much tuberculated, and the heart was united to the liver by a large cyst full of biliary matter, of about the consistence of cheese, the cyst probably being the remains of an *echinococcus*. The exterior of the heart bore evidence of the previous existence of intense pericarditis, the pericardium throughout being closely adherent to the heart. A piece of lymph weighing two drachms, and of a whitish colour, covered the upper and anterior surface of the left lobe of the liver. The anterior wall of the right ventricle was lined with a large dense tough mass of lymph, which was firmly adherent to the parietes, and evidently had existed for some time before death, and constituted another of the many examples, as Dr. Crisp believes, that he had met with, both in man, and in the lower animals, of the prolongation of life by the presence of these clots, which serve to accommodate the size of the cavity, to the weakened condition of the heart. The blood-corpuscles were generally irregular in form, the nucleus in most of them indistinct, and in many apparently absent.

Dr. CRISP, 13h of January, 1860.

3. *Enlarged spleen in a hare.*

The specimen consisted of the spleen of a marsh hare, killed by coursing (from a district where ague is prevalent), which weighed three ounces one hundred and twenty-one grains. The enlargement arose chiefly from fibrinous deposit, the interior of the organ being interlaced with fibrinous bands of rather recent formation, and a large layer of fibrine crossing a part of the exterior. The surface of the liver also contained round patches of fibrinous deposit. The blood with the exception, perhaps, of being deficient in quantity, presented no abnormal appearance, the white corpuscles being not more abundant than usual. Three hares from the same district were examined, and the viscera of all were in a healthy condition.

The average weight of the hares' spleen is about twenty grains, and Dr. Crisp had never before met with a similar enlargement in a wild animal; occasionally he had seen the spleens of rats and hares somewhat enlarged, but in our British wild quadrupeds and birds these abnormal conditions of the spleen were, he believed, very rare.

Dr. CRISP, 3rd of April, 1860.

4. *Four gall-stones from the gall-bladder of a spotted Cava (Cælogenys Paca.)*

The animal, from South America, had been four years in confinement, and died of extensive tubercular deposit of the liver and spleen. Although the animal was in excellent condition, one of the concretions was the size of a large pea, the others were about half that size; they were of a whitish colour and contained a large proportion of lime.

Dr. Crisp said that this was the only instance he had met with of gall-stones in a foreign animal in confinement, although they were not very uncommon in stall-fed oxen, in cows fed upon grains, and in sheep fed upon sugar. The food of the animal in question was chiefly carrots, which contain a large quantity of saccharine matter.

Dr. CRISP, 3rd of April, 1860.

5. *Pericarditis in birds.*

The first was a specimen of this disease in a Muscovy duck (*Cairina moschata*), in which the pericardium was generally adherent to the heart, upon which was a thin deposit of lymph.

The next specimen was from a black swan, *Cygnus atratus*, and afforded a more extensive example of this disease. The heart was completely covered at its base and anterior part with a thick layer of lymph which was more or less organized. The inflammation had extended to the

thoracic air-cells of the left side of the chest, and here were also large deposits of lymph of a less vascular character. A portion of this lymph was covered with mould, although the bird was examined soon after death, an occurrence not very infrequent in this class of animals, owing, probably, to the low amount of vitality in the newly-formed product. Some portions of the lymph presented interesting examples of the formation of vessels and blood-channels. In the most organized portions, tortuous vessels were seen in the lymph, terminating in what appeared to be blotchy extravasations of blood; in the more recent and less organized layers, the blood was seen only in patches without any appearance of vessels or well-defined blood-channels. No evidence of endocarditis existed in either specimen.

Dr. CRISP, 1st of May, 1860.

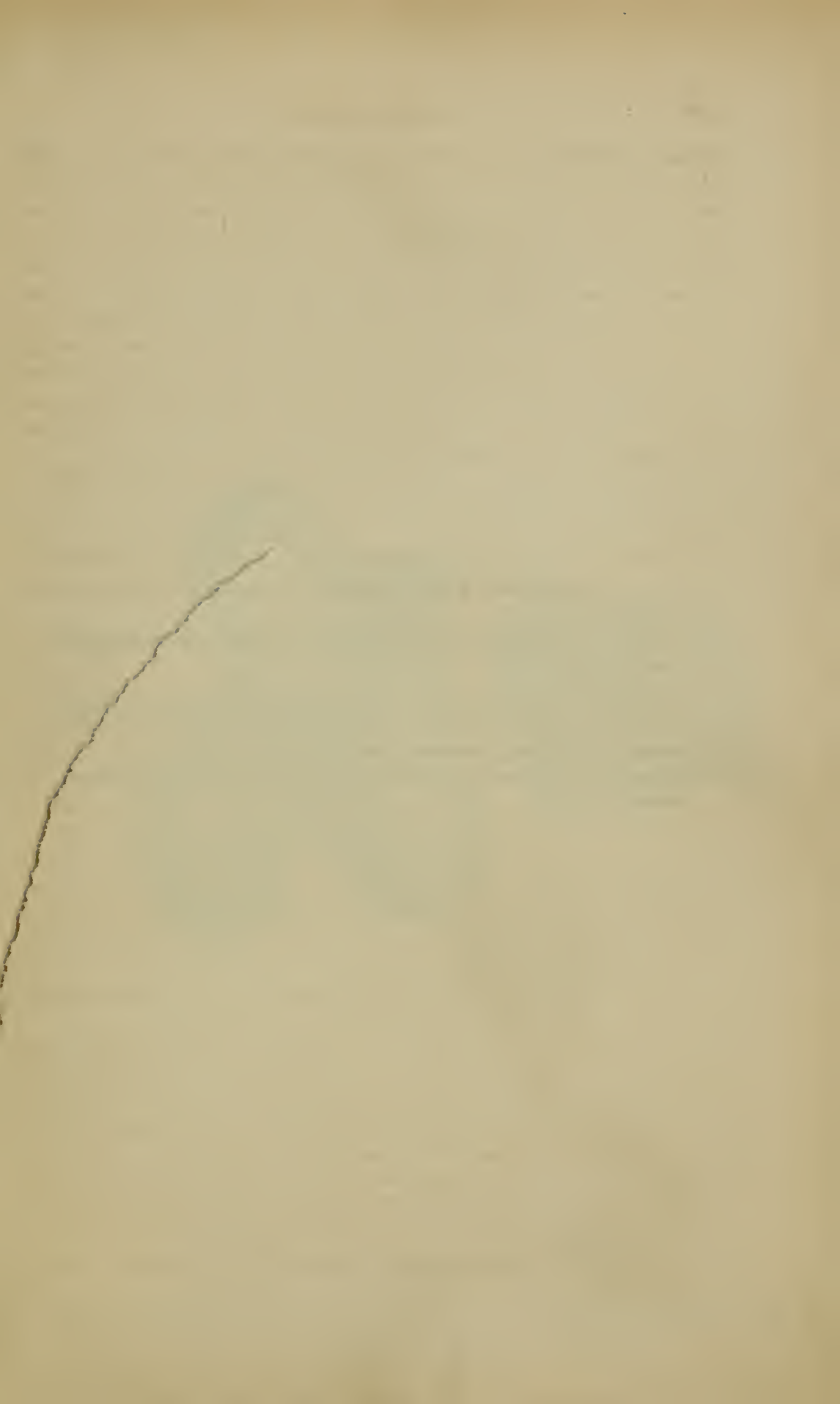
6. *On a peculiar form of disease affecting the osseous system of the horse.*

The specimens exhibited were sent to me for examination by Professor Varnell, of the Royal Veterinary College.

History.—In the autumn of 1859, Mr. Varnell was consulted by a breeder of horses in Berkshire regarding an unusual form of disease which had broken out in his stud. The first sign of the disease was a swelling of one of the large joints, accompanied by heat and tenderness. In a day or two these symptoms would subside, or it might rather be said, transfer themselves to the corresponding joint in the opposite limb. In a few days more, several other joints would become similarly affected, and the animal be forced to remain perfectly still in consequence of the pain it suffered in making the slightest movement of the limbs. These apparently rheumatic symptoms were associated with hypertrophy, and softening of the bones, and ended, by the animals losing the power of rising or walking, in consequence of a spontaneous detachment of the ligaments from the heads of the bones.

Another remarkable feature in the disease was, that it only attacked the males—the castrated as well as the entire animals.

On *post-mortem examination*, the viscera were found healthy. The muscles pale, but otherwise normal. On making an incision into one of the swollen joints, a considerable quantity of reddish-brown fluid escaped. The synovial membranes were in some cases thickened and vascular. The cartilages had an ulcerated appearance. (Plate X., Figs. 1 and 2.) At some spots the tissue was entirely absent, and left a portion of the bone exposed. The edges of the cavities in the cartilage were in a few cases smooth, as if they had been pared with a knife. At other places the lesion looked as if it had been made with a sharp gouge.



DESCRIPTION OF PLATE X.

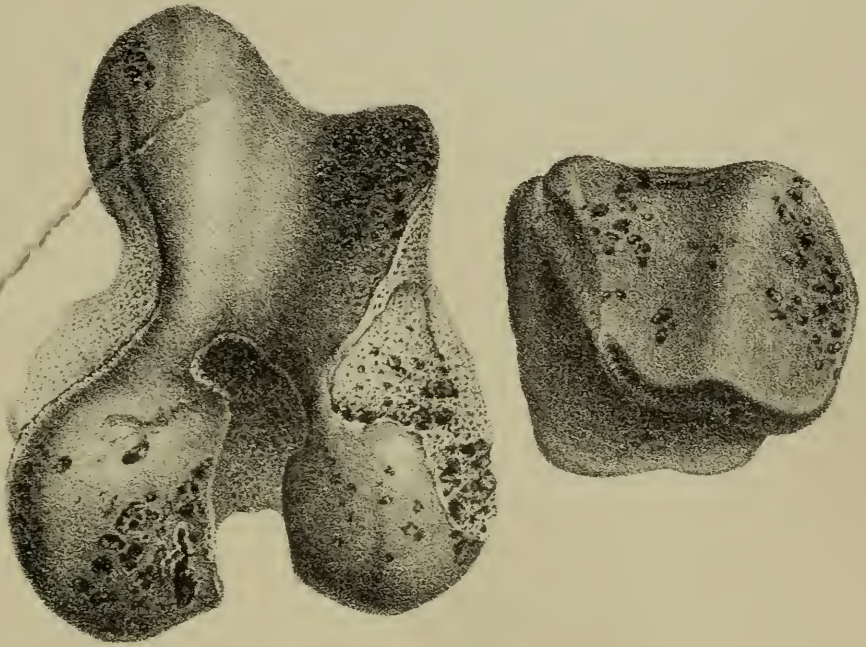
Illustrating Dr. Harley's paper on a Disease of the Osseous System of the Horse, p. 308.

Fig. 1. Represents the lower extremity of the femur, and shows the ulcerated condition of the cartilages, with the roughened state of the bone, caused by detachment of the ligament of the quadriceps extensor.

Fig. 2. Represents a similar condition of the articular surface of the head of the cannon bone.

FIG. 1

FIG. 2.







DESCRIPTION OF PLATE XI.

Illustrating Dr. Harley's paper on a Disease of the Osseous System of the Horse, p. 309.

Fig. 1. Represents a lower jaw-bone in the most advanced stage of the disease.

Fig. 2. Representing a healthy jaw-bone, is given by the side of Fig. 1, for the sake of contrast.

FIG. 1

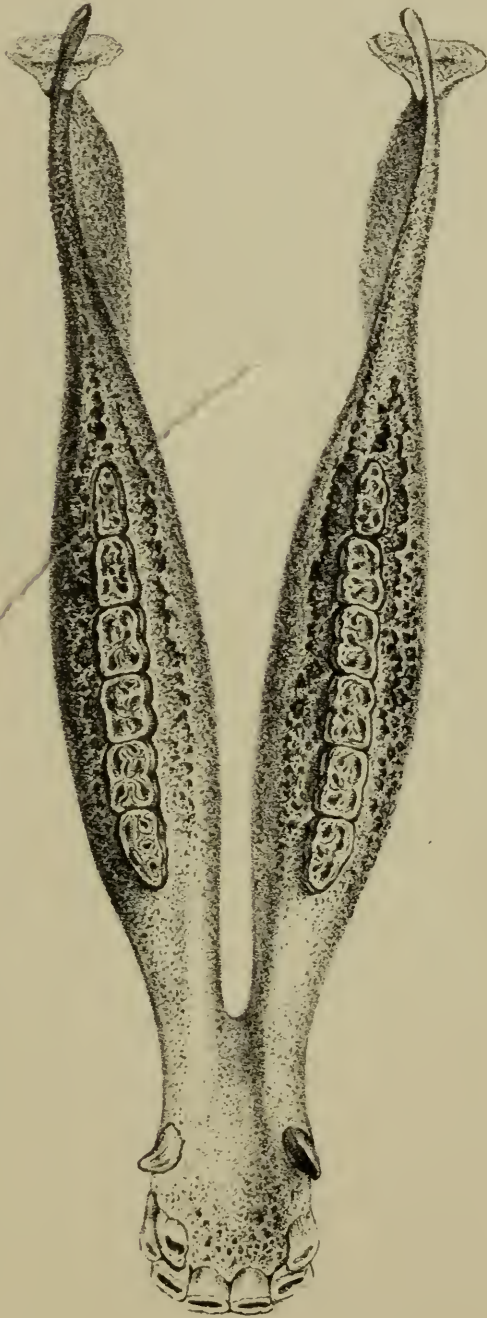
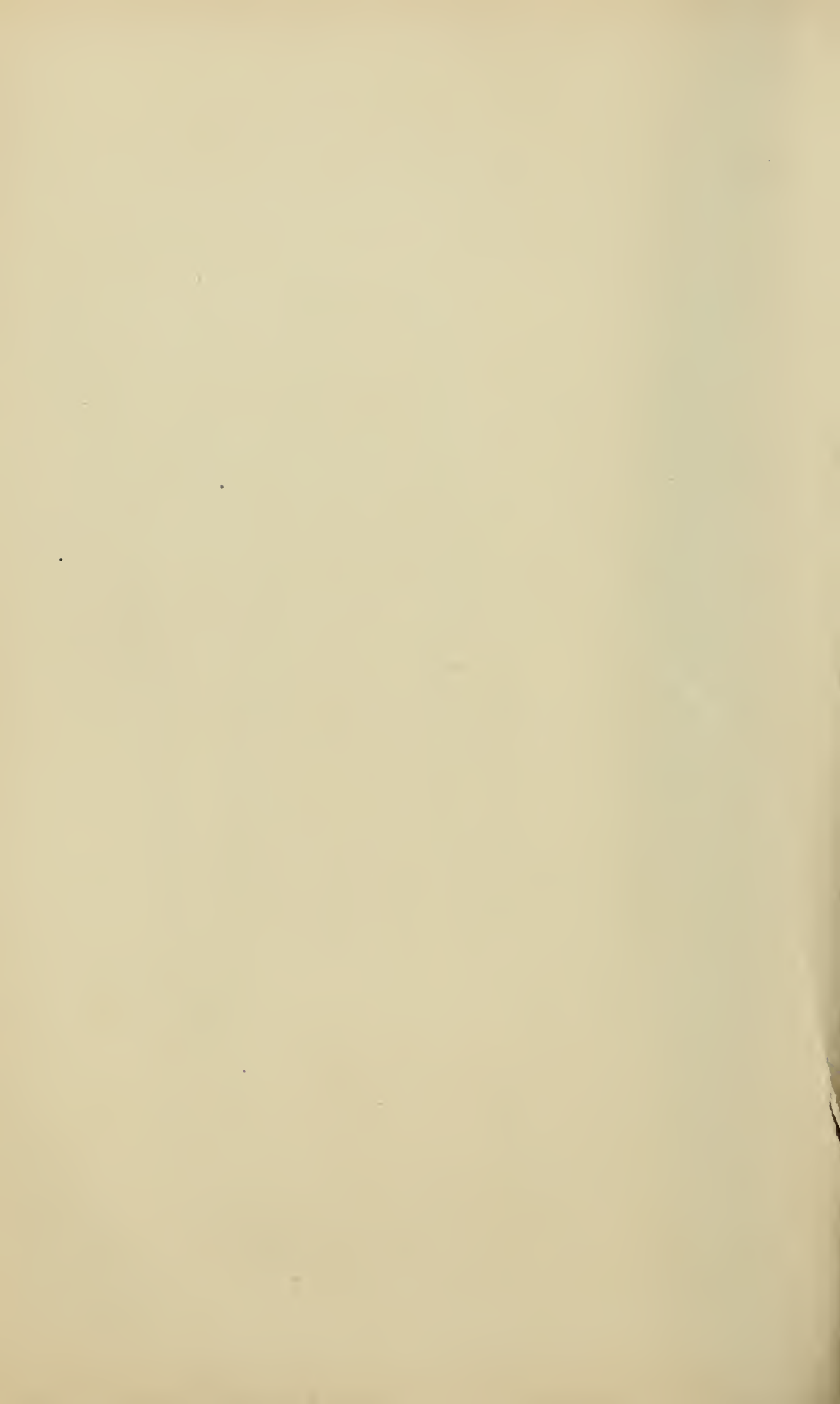
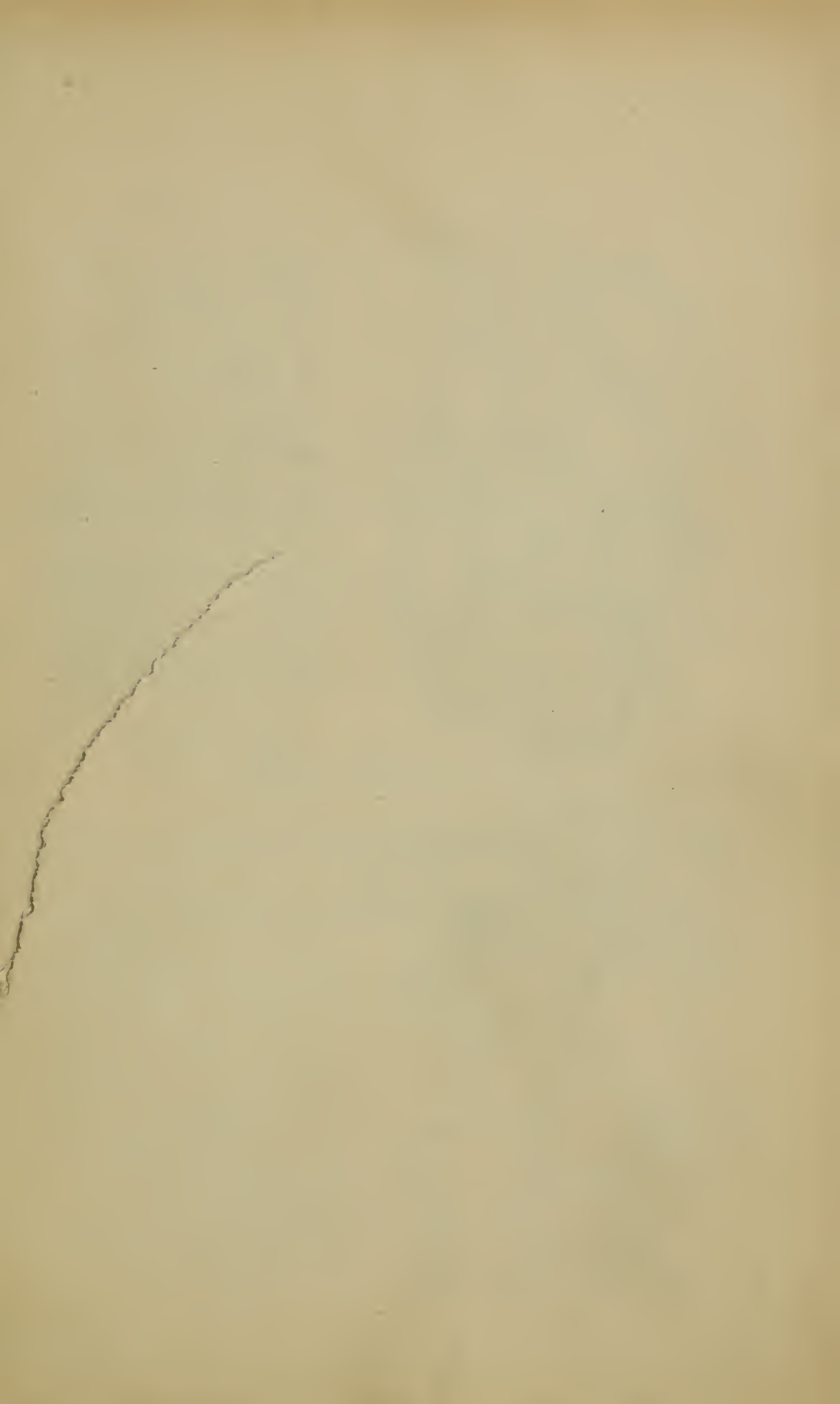


FIG. 2







DESCRIPTION OF PLATE XII.

Illustrating Dr. Harley's paper on a Disease of the Osseous System of the Horse, p. 309.

Fig. 1. Represents a longitudinal section of the hypertrophied jaw-bone, magnified fifty diameters.

Fig. 2. Represents a transverse section of the same portion of bone, magnified ninety diameters.

In both these Figures the same letters are used for the corresponding parts.

- a.* Enlarged Haversian canals.
- b.* Rarefied osseous tissue.
- c.* Lacunæ.
- d.* Transparent gelatinous substance.

Fig. 3. Transverse section of decalcified femur from the Horse.

- a.* Normal bone.
- b.* Irregular cavities filled with fat-cells and granules.

Fig. 4. Represents a section of the os innominatum of the human female, affected with mollities,

- a.* Enlarged Haversian canal, and areolar spaces partially filled with fat-cells.
- b.* External surface covered with periosteum.

Fig. 1.

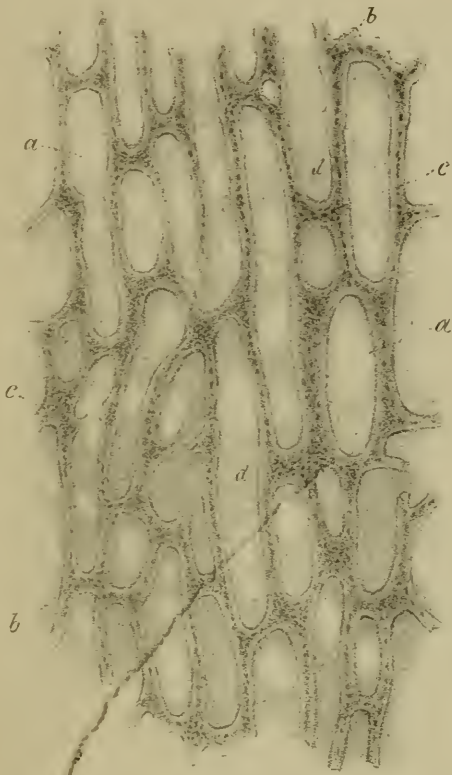


Fig. 2.

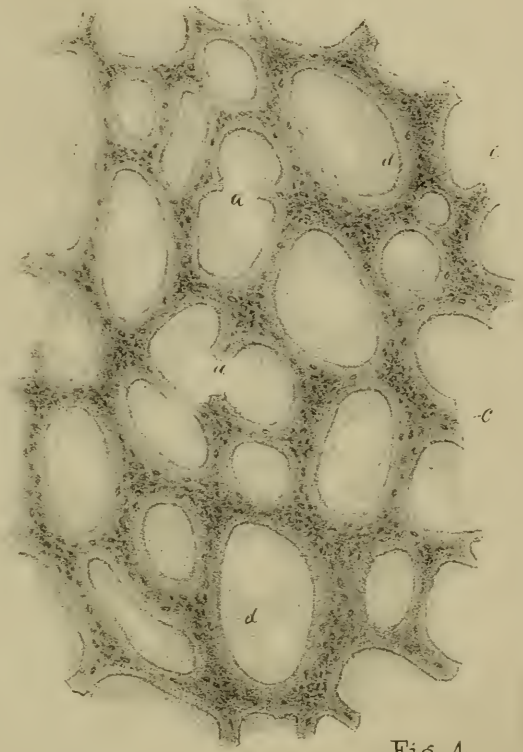
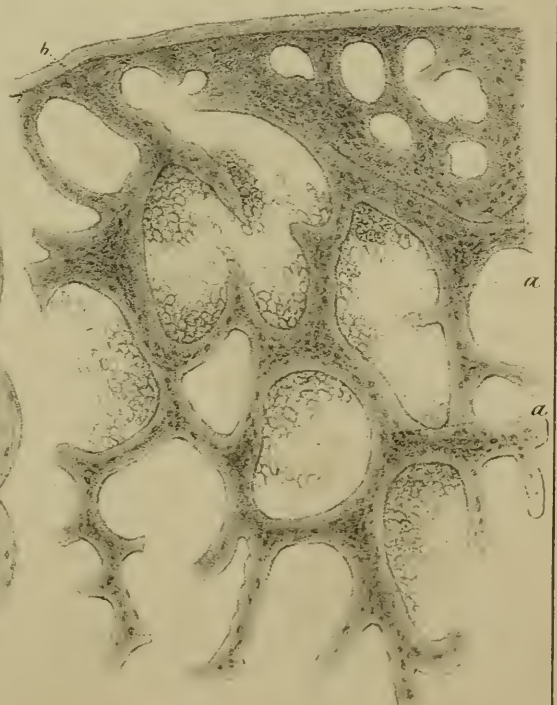
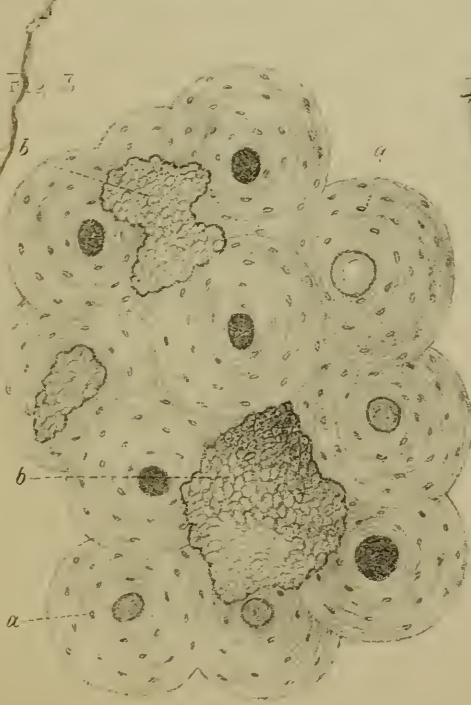


Fig. 4.



The heads of the large bones of the limbs presented a most remarkable appearance in consequence of the surfaces from which the ligaments had been detached being rough, raw, and bleeding. (Plate X., Fig. 1.) At first sight it looked as if the ligaments had been wrenched off by some great force instead of their having become spontaneously detached.

The bones themselves presented two varieties of morbid state essentially different, the ribs and cranial bones having undergone one change, while those of the limbs had undergone another of an entirely different character.

1. *The cranial bones and ribs.*

The lower jaw-bone presented the disease in the most advanced stage. It was greatly hypertrophied in its transverse diameter; especially towards the centre. (Plate XI., Fig. 1.) The periosteum could be pulled off with unusual facility. The osseous tissue was elastic to the touch, of a pink colour, and largely impregnated with blood. Very slight pressure was sufficient to cause the blood to ooze from the surface of the bone. The tissue was so soft that it could be readily cut with a knife. The cut surface had a fleshy appearance.

When a thin longitudinal section is examined with the microscope, (Plate XII., Fig. 1), the Haversian canals (Fig. 1 *a*) are seen to be excessively developed, and the bony tissue (Fig. 1 *b*) expanded into a reticulated structure. The osseous lamellæ, are so diminished in number that at the first glance they are apt to be mistaken for Haversian canals, and the canals themselves for bone-tissue. When examined with a higher power (90 diameter) it is seen that not only has this bone become rarefied; but the lacunæ (*c* Figs. 1 and 2) are less distinct than in healthy bone. The canaliculi are in many cases obliterated. The transverse section of the same portion of bone when magnified 90 diameters, presents the appearance delineated at Fig. 2. Several of the walls of the Haversian canals are broken down, and two or three of the cavities (*a* Fig. 2) are coalescing. In both the transverse and longitudinal sections, the Haversian canals contained a thin transparent membranous-looking substance (*d* Figs. 1 and 2) not removable by washing.

2. *Long bones.*—The periosteum is not nearly so readily detached from the long bones as it is from the jaw; but still it comes away more easily than from a normal bone. Towards the extremities of the bones—even in the neighbourhood of the detached ligaments—the outer surface of the shaft is dense and hard. The osseous tissue is, however, thinned in consequence of the medullary canal being dilated at its expense. Throughout its whole extent the medullary canal is filled with a pinkish-coloured marrow, similar to what is sometimes met with in *mollities ossium*. Towards the end of the bone the marrow is of a darker hue, almost

like blood. In the centre of the shaft the osseous tissue is not encroached upon by the medullary canal. Nor does it present any of the spongy characters found in the cranial bones. On the contrary, it is so dense and hard that the knife makes no impression upon it. After the calcareous matter is removed by acid, the section of the softened bone has a somewhat glistening, cartilaginous appearance, and is here and there dotted with opaque white spots. Under the microscope a curious appearance is seen. (Plate XII., Fig. 3). In general the Haversian canals with their concentric lamellæ appear normal. The lacuna and even the canaliculi, as far as could be judged in the decalcified bone, are healthy. On close inspection, however, what appeared as opaque white spots to the naked eye are seen to be irregular-shaped cavities in the substance of the osseous tissue. (Fig. 3 *a*). These cavities vary in size from the merest point up to the dimensions of a mustard-seed. They are very irregular in shape and are filled with fat cells, and granules. The disease seems to begin in the Haversian canals, the walls being broken down and gradually eaten away as the morbid change advances on the osseous tissue. This condition of bone is well represented in Fig. 3.

The nearest approach to this state of bone is that observed in mollities; but there (as will be seen in Fig. 4, which is taken from a section of a human pelvis affected with that disease) the Haversian canals are regularly distended, and the fatty matter is deposited in them. Moreover, as will be observed in the above description, the diseased bones present several other characters which distinguish it from ordinary malacosteon.

Remarks.—The points of interest in this case are:—

1. The peculiar ulceration of the cartilages.
2. The spontaneous detachment of the ligaments.
3. The kind of disease affecting the bones themselves.
4. The disease only attacking the males.
5. Its occurring in the growing, as well as in the adult animal (from two to six years old).
6. The animals attacked by the disease being the offspring of different dams and sires.
7. The parents in no case having any special disease, and lastly, on account of the affection making its appearance in one stud only, although the proprietor of the animals had another stud at a farm within two miles' distance, and the horses, as well as the mares, on both farms were fed alike, and as far as could be ascertained, were kept under the same hygienic laws.

The food consisted of hay, bran, oatmeal, and roots in winter, rye grass, vetches, and other green food in summer. The drink, of water

obtained from slate-roofs, and surface-drainage—therefore soft water. No artificial manure is used on either farm, nor is there any chemical or other unwholesome works in the neighbourhood. The animals had always a moderate amount of exercise; the horses not more than the mares. The disease generally made its appearance after the animals had been kept idle from some cause or other, such as a wound, or a slight attack of influenza. The disease ran its course in from two to seven months. None of the animals attacked recovered. Seven died in the course of ten months. Although there can be little doubt that the disease is the result of some defective sanitary arrangement, what the nature of that may, however, be, still remains a mystery.

Dr. HARLEY, *15th of May, 1860.*

P.S.—Since the above was in the press, Mr. Varnell has informed me that one of the mares has shown symptoms of disease; but the affection is not yet sufficiently well-marked to enable him to say whether it be the same affection as that above described.



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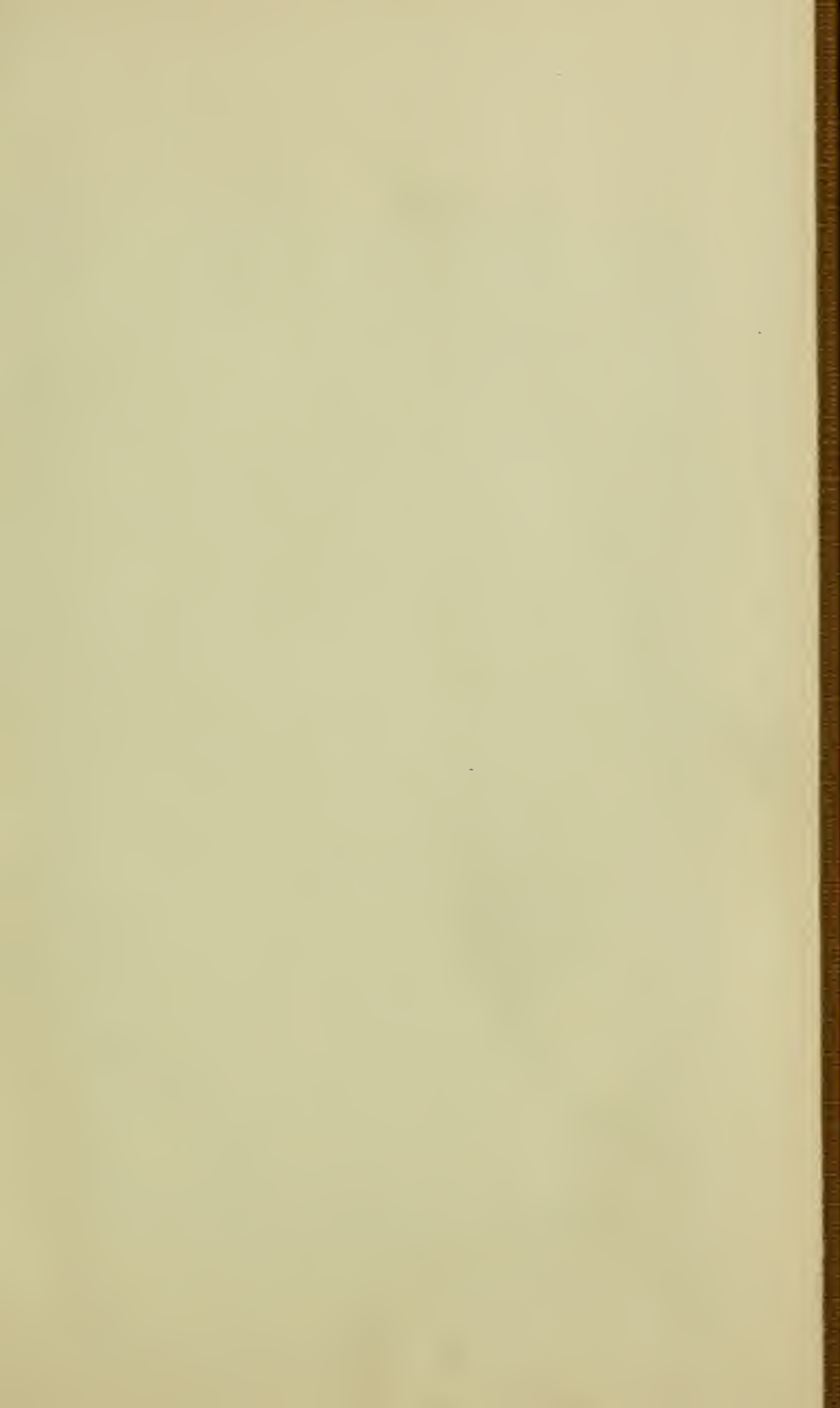
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