BOOK REVIEWS

left out and so have the trivialities of treatment which tend to overload the other books available on first aid.

This book can be highly recommended to anyone wishing to run a first aid course and could be adopted by the national first aid organisations as their standard textbook with great benefit to patient and intending first aider alike.—A. J. G. Howse.

BOOKS OF ORTHOPAEDIC INTEREST


The twelfth edition of this work contains numerous articles of orthopaedic interest, each followed by a brief summary in English. These include fractures of both bones of the forearm, fragilitis ossium, late reattaining following fracture of the femoral shaft and the significance of the presence of a calcaneal spur.


This edition, the sixth in eleven years, is several pages shorter than its predecessor, despite the addition of some new material. This trend will certainly be welcomed by all medical students.

It is concise, lucid and beautifully illustrated.

Its popularity with undergraduates and orthopaedic nurses is equalled only by its value to those who lecture to them.


This little paper-back covers in brief form the essentials of spinal disease likely to be of interest to students and general practitioners. It is well illustrated and well printed.


The text of the communications given at the Symposium on Osteomalacia organised in Tours from September 7 to 11, 1965, are attractively set out in this paper-back volume.

vol. 49 B, no. 4, November 1967
ACKNOWLEDGMENTS

We acknowledge with thanks receipt of
Acta Chirurgica Scandinavica, and Supplements
Acta Orthopaedica Italica
Acta Ortopedica-Traumatologia Iberica
Annals of the Royal College of Surgeons of England
Archives of Surgery
Archivio dei Centri Traumatologici Ortopedici dell'Istituto Nazionale Infortuni
Biological Abstracts
Boletin de la Sociedad de Cirugia del Uruguay
British Journal of Surgery
British Medical Bulletin
Canadian Journal of Surgery
Indian Journal of Surgery
Journal of Neurology, Neurosurgery and Psychiatry
Journal of the American Medical Association
Journal of the Royal College of Surgeons of Edinburgh
Journal of Trauma
Lancet
Ortopedia e Traumatologia dell'Apparato Motore
Radiology
Revista de Ortopedia y Traumatologia
Revue de Chirurgie Orthopédique
Surgery, Gynecology and Obstetrics
Zeitschrift für Orthopädie und ihre Grenzgebiete
AUTHOR INDEX

A

Abadie, C. Mobile appliance clinics, 594.
Adams, J. C. Comments on osteotomy of the spine, 394.
Compression plating in the treatment of fractures (discussion), 391.
Internal fixation without external support for closed fractures of the radius and ulna (discussion), 391.
Osteotomy of first metatarsal neck for hallux valgus (discussion), 197.
Adkins, E. W. O. Intertransverse spinal fusion for spondylolisthesis (discussion), 187.
Aggarwal, A. K. Ischaemic contracture of limbs from tight splinting (discussion), 388.
Aggarwal, N. D. Ischaemic contracture of limbs from tight splintage, 388.
with Verma, A. C. Calcaneus deformity of foot, 801.
Alexander, C. J. Etiology of primary protrusio acetabuli, 806.
Allan, F. G. Leg lengthening (discussion), 184.
Alms, M. Congenital talipes equinovarus (discussion), 583.
Alvik, I. Arthrodesis of the hip, 793.
Treatment of non-union of fractures of long bones, 791.
Anderson, W. V. Clinical observations on leg lengthening, 184.
with Pollock, G. A. Leg equalisation by both shortening and lengthening (demonstration), 189.
Apley, A. G. Book reviews, 208, 600.
Atkinson, P. J., with Weatherell, J. A. Variation in the density of the femoral diaphysis with age, *781.
Ayaduray, S. Osteomyelitis in open fractures in Singapore, 385.

B

Baker, G. C. W. Syme's amputation (demonstration), 189.
with Stark, G. Patterns of spinal cord lesion in myelomingingocele, 187.
Barnes, R. Fracture of the neck of the femur (Alexander Gibson memorial lecture), *607.
Impacted fractures of the neck of the femur (discussion), 587.
Training of the orthopaedic surgeon, 188.
Batchelor, J. S. Excision osteotomy of the hip (discussion), 584.
Intertransverse spinal fusion for spondylolisthesis (discussion), 187.
Varus osteotomy, 184.
Bedbrook, G. M. Experiences in reconstruction of the tetraplegic hand, 385.
Haemangioma of the vertebra (discussion), 386.
Belder, K. R. J. de. See De Belder, K. R. J.
Bentley, G. Impacted fractures of the neck of the femur, 587.
Berman, L. Rupture of the capsule of the knee in rheumatoid arthritis, 200.
Betts, W. J. Fracture-separation of proximal epiphysis of humerus (discussion), 806.
Block, J., with Oppenheim, J. J., and Hersh, E. Symposium on the biological effects of phyto-phaemagglutinin, 196.
Bloom, R., with Lee, M. H. L. Bone and soft-tissue tumours (demonstration), 590.
Blundell Jones, G. See Jones, G. B.
Bonin, J. G. Book reviews, 206, 396.
Boe, A. C. Fracture of forearm bones, 801.
Bosman, H. B. Reginald Henry Boyd, 189.
Braakman, R. Techniques in orthopaedic surgery, 188.
with Vinken, P. J. Bilateral facet joint locking in the lower cervical spine, *249.
Bracken, B. C. Surgery of cerebral palsy, 389.
Brett, M. S. Posterior tibio-fibular synostosis for delayed union and non-union of the tibia (demonstration), 590.
Brewerton, D. A. Book review, 813.
Broglio, M. C. C., with others. Powered prostheses (demonstration), 189.
Brook, A. L. Eyre., See Eyre-Brook, A. L.
Brooks, D. M. Dupuytren's contracture, 793.
Brown, A. Symposium on spina bifida: orthopaedic surgery, 383.
Brown, J. E., with Smith, L. Treatment of lumbar intervertebral disc lesions by direct injection of chymopapain, *502.
with others. Permeability of cartilage, 185.
Bulmer, J. H. Congenital syphilis, 586.
Smooth muscle tumours of the limbs, *52.
with others. Venous drainage in osteoarthrits of the hip: a study after osteotomy, *301.
The modern limb prosthesis (discussion), 794.
Pitfalls in major prosthetic replacement of bone, 817.
Thomas Henry Bishop (obituary), 582.

C

Callow, F. H. McC. Reginald Ernest Wherrett (obituary), 370.
* Indicates full article.
INDEX

Capener, N. Book review, 601.

discussion, 794.
The modern limb prosthesis, 793.
Nerve isolation techniques (discussion), 186.
Reginald Mitchell memorial lecture, 192.
Spondylolisthesis (discussion), 792.
Vertebral tuberculosis and paraplegia (editorial), 605.
Caron, G. A. Symposium on the biological effects of phytohaemagglutinin, 196.
Catterall, C. C. F. Syme's amputation by Joseph Lister after sixty-six years, *144.
Caucholx, J. Idiopathic avascular necrosis of the femoral head in adults (discussion), 200.
Surgical management of osteoarthritis of the knee, 200.
Symposium on scoliosis, 198.
Chalmers, J. Radiological diagnosis of osteoporosis (exhibit), 189.
with others. Osteomalacia: a common disease in elderly women, *403.
Chapman, J. A. Symposium on the biological effects of phytohaemagglutinin, 195.
Chesterman, P. J., with others. Visit of the Travelling Fellows to North America 1966, 374.
Clark, J. M. P. Relapsed club foot (discussion), 793.
Clarke, H. Osmond-. See Osmond-Clarke, H.
Clawson, D. K. Functional evaluation of the hand in rheumatoid arthritis, 584.
Clezy, J. K. An alternative method of tendon transfer for foot drop from lateral popliteal nerve palsy (discussion), 386.
Non-spinal pyogenic psoas abscess (discussion), 392.
Cloke, J. Haemangioma of the vertebra (discussion), 386.
Prosthetic replacement for fractures of the neck of the femur (discussion), 389.
Cohen, B. T. Keon-. See Keon-Cohen, B. T.
Colvin, G. Bone changes in thalassaemia and allied haemoglobinopathies, 389.
Cooper, E. H. Symposium on the biological effects of phytohaemagglutinin, 196.
Cothay, D. M. Golden's operation for hallux valgus, 198.
Injury to the lower medial epiphysis of the humerus before development of the osseous centre, *766.
Craig, J. J. Indications for surgery in cerebral palsy, 199.
Cumming, W. J. Review of 100 cases of Legg-Calvé-Perthes' syndrome treated by recumbency, 386.

D

Daniel, M. V. Osteoclasmata, 800.
Darmady, C., with Evans, E. S., and Lamb, J. Management of the haemophilic patient at Alton (demonstration), 590.
Davie, B., with Lamb, D. W. Amputation through the knee, 385.
Davies, R. Wynne-. See Wynne-Davies, R.
Davies, W., with others. Venous drainage in osteoarthritis of the hip: a study after osteotomy, *301.
Dawkins, A. L. Chondromalacia of the patella (discussion), 390.
Presidential address, Australian Orthopaedic Association, 392.
Dawson, A. S. Arthroplasty of the knee, 795.
De Belder, K. R. J. Late distal migration of the femoral intramedullary nail, 197.
Denham, R. A. Congenital talipes equinovarus, 583; demonstration, 590.
Devas, M. B. Amputation through the knee (discussion), 585.
Congenital talipes equinovarus (discussion), 583.
Shin splints, or stress fractures of the metacarpal bone in horses, and shin soreness, or stress fractures of the tibia, in man, *310.
with Irvine, R. E. The geriatric orthopaedic unit, 186.
Dewar, F. P., with Yabsley, R. H. Fracture-dislocation of the shoulder, *540.
De Wet, I. S. Osteoid osteoma, 200.
Domnisse, G. F. Backache in pregnancy and pelvic arthropathy (discussion), 199.
Joseph Melvin Edelstein (obituary), 182.
Donnellan, J. R. Extremity salvage in bone tumours, 801.
Dooley, B. J. Osteotomy of the femur for advanced osteoarthritis of the hip, 386.
Dunkerley, G. B. Osgood-Schlatter and Sinding-Larsen-Johansson diseases (demonstration), 591.
with Murray, C. M. M. Intramedullary nailing for fractures of the tibia (demonstration), 591.
Duraiswami, P. K. Congenital pseudarthrosis of the tibia (discussion), 800.
Durbin, F. C. Symposium on the McKee-Farrar arthroplasty of the hip, 593.
Duthie, R. B. Training of the orthopaedic surgeon, 188.
with Townes, P. L. The genetics of orthopaedic conditions, *229.

E

Eastoe, J. Review of the diversity of matrix components in mineralising systems, 379.
Elliott, D. H. The bends, 588.
Elliott, J. K. Early fitting of artificial limbs (discussion), 806.
Ellis, J. S. Book reviews, 207, 396, 602.
Fractures of the lower ends of the radius and ulna in children, 583.
Patelectomy for osteoarthritis of the knee (demonstration), 591.
Treatment of non-union of fractures of long bones (discussion), 792.
Elson, R. A. Dislocation of the extensor tendons of the hand, *324.
Emmott, H. The immediate treatment of “killing” injuries (discussion), 794.
Ensell, T. B. Postero-lateral approach for arthrodesis of the lumbar spine (discussion), 199.

* Indicates full article.

THE JOURNAL OF BONE AND JOINT SURGERY
Evans, D. Book review, 812. 

The immediate treatment of "killing" injuries (discussion), 794. Relapsed club foot, 792.

Evans, E. S., with Darmady, C., and Lamb, J. Management of the haemophilic patient at Alton (demonstration), 590.

Evans, T. A., with Stone, K. H., and Bailey, D. Traumatic arteriovenous fistula of the posterior tibial vessels, *771.

Eyre-Brook, A. L. Congenital talipes equinovarus (discussion), 583. 


Hubert Chitty (obituary), 581. Management of fibrosarcoma, 792.

F

Fairbank, T. J. Book review, 814.

Fang, H. S. Trans-sternal fusion of the upper thoracic vertebrae for tuberculosis (film), 189.


Fitzgerald, P. F. Degenerative changes in the knee after meniscectomy (discussion), 584.

Fook, L. S. Non-synovial psosas abscess, 792.

Forsdyke, D. R. Symposium on the biological effects of phytohaemagglutinin, 196.

Freeman, M. A. R. Book reviews, 207, 398. Experimental tenodesis (discussion), 186. 

with Wyke, B. D. An experimental study of articular neurology, 185. 

with others. Permeability of cartilage, 185.


Fulford, P. C. Rotational movements of the knee joint, 584.

G

Gad, P. The anatomy of the volar part of the capsules of the finger joints, *362.


Garst, R. G. Costo-transversectomy (discussion), 801.


Goel, M. K. An alternative method of tendon transfer for foot drop from lateral popliteal nerve palsy (discussion), 388. 

Osteoarticular lesions after smallpox, 391. 

Osteotomy of the spine (discussion), 385. 

Treatment of Pott's paraplegia by operation, *674.

Golden, G. N. Impacted fractures of the neck of the femur (discussion), 587.

Golden, R. Book review, 205. 


Goodfellow, J. W., with Bullough, P. G. The pattern of ageing of the articular cartilage of the elbow joint, *175. 


* Indicates full article.

Goto, Y. Fresh fractures of metacarpal bones and phalanges, 387.


Grayson, P. C. Richard Henry Dawson (obituary), 789.

Green, J. P. Union of intertrochanteric osteotomies, *388.

Greenland, T. B. Symposium on the biological effects of phytohaemagglutinin, 195.

Griffin, C. R. Synovectomy for rheumatoid arthritis, 197.

Griffiths, D. L. Book reviews, 204, 394. 

The hazards of closed reduction (McMurray memorial lecture), 190.


Guicciardi, E., with Little, K. Some observations on the effects of blood and a fibrinolytic enzyme on articular cartilage in the rabbit, *342.


Gupta, A. K. Traumatic dislocation of the hip, 800.

Guttmann, Sir L. Traumatic paraplegia, 593.

H

Hadlow, V. The lumbar disc in flexion, 806.

Hall, H. Aneurysmal bone cyst, 593.

Hall, J. E. Harrington instrumentation and spinal fusion, 585. 

with Retlon, J. E. S. An operation frame for spinal fusion, *327. 


Hanelman, J. E. Continuous correction of talipes from birth, 200.

Harborow, P. R. H., with others. Powered prostheses (demonstration), 189.


Hargrave, J. C. The thumb in leprosy, 385.

Harrington, P. R. Symposium on scoliosis, 199.

Harris, G., with Littleton, R. J. Symposium on the biological effects of phytohaemagglutinin, 196.

Harrison, M. H. M. Permeability of cartilage (discussion), 185.


Hauge, J. Arthrodesis of the hip (discussion), 793. Demonstration, 794.


Hay, B. M. Fracture-separation of proximal epiphysis of humerus (discussion), 806.

Hedden, F. J. Idiopathic avascular necrosis of the femoral head in adults, 200.

Heirtonn, T. The modern limb prosthesis (film), 794. Treatment of non-union of fractures of long bones (discussion), 792.

Helal, B. H. Venous drainage in osteoarthritis of the hip (discussion), 184. 

with Skevis, X. Unrecognised dislocation of the hip in fractures of the femoral shaft, *293.
I

Ingwersen, O. S. Congenital indifference to pain, 370A.


Irvine, R. E., with Devas, M. B. The geriatric orthopaedic unit, 186.

Iwahara, T. Osteotomy of the spine (discussion), 385. Tuberculosis of bone and joint in Japan, 385.

* Indicates full article.

J

Jackson, J. P. Congenital talipes equinovarus (discussion), 583. Degenerative changes in the knee after meniscectomy, 584.

Jackson, O. J. Vaughan-. See Vaughan-Jackson, O. J.

Jackson Burrows, H. See Burrows, H. J.

Jackson-Richmond, J. Treatment of ankylosing spondylitis, 198.

James, J. J. P. Film review, 399. The geriatric orthopaedic unit (discussion), 187. Harrington instrumentation and spinal fusion (discussion), 586. High incidence of hiatal hernia in the scoliosis of childhood (discussion), 187. Scoliosis (demonstration), 189. Training of the orthopaedic surgeon, 188.


Jennings, G. C. Metatarsal osteotomy for hallux valgus, 806.


Jonck, L. Posterolateral approach for arthrodesis of the lumbar spine, 199.

Jones, B. B. Degenerative changes in the knee after meniscectomy (discussion), 584.

Jones, B. V. Incisions and their closure (demonstration), 590.

Jones, G. B. Symposium on innominate osteotomy for congenital dislocation and subluxation of the hip, 593. Symposium on the McKee-Farrar arthroplasty of the hip, 593.

Jones, G. Rigby-. See Rigby-Jones, G.

Jones, Sir R. Watson-. See Watson-Jones, Sir R.

Joseph, J., with Watson, R. Telemetering electromyography of muscles used in walking up and down stairs, *774.

K

Kaplan, C. J. Idiopathic avascular necrosis of the femoral head in adults (discussion), 200.


Kay, J. E. Symposium on the biological effects of phytohaemagglutinin, 195.


Kerridge, G. Reconstruction of the tetraplegic hand (discussion), 385.


THE JOURNAL OF BONE AND JOINT SURGERY
AUTHOR INDEX

Kidd, H. A. Amputation through the knee (discussion), 585.
Kiloh, H. C., with others. Heterogenous bone implants (demonstration), 590.
Knight, G. C. Acrylic inlay for instability of the cervical spine, 384.
Knight, S. Symposium on the biological effects of phytohaemagglutinin, 196.
Kotani, P. T. Osteotomy of the femur for advanced osteoarthropathy of the hip (discussion), 386.
Surgical treatment of osteoarthropathy of the hip, 387.
Kotler, M. Assessment of the elderly injured patient (discussion), 199.
Kramer, I. R. H., with others. Heterogenous bone implants (demonstration), 590.
Krane, S., with Parson, V. Rat epiphyseal cartilage glycolytic substrates in phosphate deficient rickets, 194.

L
Lamb, D. W., with Davie, B. Amputation through the knee, 585.
with others. Powered prostheses (demonstration), 189.
Lamb, J., with Evans, E. S., and Darmady, C. Management of the haemophilic patient at Alton (demonstration), 590.
Lancaster, R. Percy.- See Percy-Lancaster, R.
Landsmeer, J. M. F., with Mulder, J. D. Mechanism of claw finger, 185.
Larsen, H. Relapsed club foot (discussion), 793.
Spondylolisthesis, 792.
Laurence, M. Genu recurvatum congenitum, *121.
Leaver, A. G., with Shuttleworth, C. A. Observations on the composition of peptides obtained from bone and dentine, 381.
Lee, M. H. L., with Bloom, R. Bone and soft-tissue tumours (demonstration), 590.
Lennox, W. M. Transfer of the neurovascular skin pedicle in the partly anaesthetic hand of leprosy, 584.
Lester, J. G. Fracture-separation of proximal epiphysis of humerus, 806.
Leitin, A. W. F. Diagnosis and treatment of lumbar instability, *520.
Ley, T. Epidural abscess simulating disc hernia (discussion), 386.
Liddell, W. A. The lumbar disc in flexion (discussion), 806.
Neurovascular complications in widely displaced supracondylar fractures of the humerus, 806.
Ling, R. S. M. Symposium on the McKee-Farrar arthroplasty of the hip, 593.
List, P. van der. Arthrodesis of hip, 798.
Little, K., with Guicciardi, E. Some observations on the effects of blood and a fibrinolytic enzyme on articular cartilage in the rabbit, *342.
Littleton, R. J., with Harris, G. Symposium on the biological effects of phytohaemagglutinin, 196.
Lloyd-Roberts, G. C. Book reviews, 399, 809.
Denis John Wolko Browne (obituary), 368.
Logue, V. Chemonucleolysis (editorial), 401.
Longland, C. J. Multiple synovial swellings of joints, 595.
Lucas, K. Symposium on the McKee-Farrar arthroplasty of the hip, 593.

M
Macdonald, A. A. Early fitting of artificial limbs, 806.
Function after reconstruction of severely long flexor tendons of the hand, *424.
MacKenzie Crooks, L. See Crooks, L. M.
McKibbin, B., with Holdsworth, F. W. The dual nature of epiphyseal cartilage, *351.
McQuillan, W. M. Nerve isolation techniques—an adjunct to secondary nerve repair, 186.
McSweeney, A. L. Congenital absence of the radius (discussion), 392.
Review of cases of Legg-Calvé-Perthes’ syndrome, 386.
Mahajan, M. M. Observations on 220 patients with spinal injuries, 800.
Majale, M. Fracture in osteopetrosis, 595.
Tuberculosis of both hips, 595.
Makin, M. Edgar Heilbrunner (obituary), 371.
Translocation of the flexor pollicis longus tendon to restore opposition, *458.
Manning, C. W. Book review, 395.
Maroudas, A., with others. Permeability of cartilage, 185.
Marwah, V. Calcaneal deformity of the foot, 800.
Maudsley, R. H. Book review, 204.
Fibular tunnel syndrome, 384.
Maxwell, C. M. Pantalar arthrodesis in the frail foot, 391.
Skin arthroplasty of the hip (discussion), 391.
Medbo, I. Demonstration, 794.
Mehta, K. M. Osteomyelitis in open fractures in Singapore (discussion), 385.
Melcher, A. H. Extracellular bound phospholipid in the connective tissues of developing mouse tail, 193.
Mendelow, A. L. Assessment of the elderly injured patient (discussion), 199.
Mitchell, G. P. Some problems in early diagnosis and treatment of congenital dislocation of the hip (demonstration), 188.
with Gibson, J. M. C. Excision of calcaneonavicular bar for painful spasmotic flat foot, *281.
Mitra, R. N. Experimental production of pyogenic arthritis, 801.
Mittal, R. L. Tibialis posterior transplant for club foot, 800.
Mortens, J. Management of fibrosarcoma, 792.
Mosedale, M. B., with Parke, J. A. C. Symposium on the biological effects of phytohaemagglutinin, 195.
Excision osteotomy of the hip, 583.
Muir, I. F. K. Book review, 813.
Mukopadhyay, B. Congenital pseudoarthrosis of the tibia (discussion), 800.
Mulder, J. D., with Landsmeer, J. M. F. Mechanism of claw finger, 185.
Murakami, H., with Emery, M. A. The features of fracture healing in cats after immediate and delayed open reduction, *571.
Murdock, G. Amputation through the knee (discussion), 585.
Murray, C. M. M., with Dunkley, G. E. Intra-medullary nailing for fractures of the tibia (demonstration), 591.
Murray, R. O. Book review, 599.
Myles, A. B. Book review, 208.

O

Nash, D. F. Ellison. See Ellison-Nash, D. F.
Natarajan, M. Discussions, 386, 388, 389.
Pantalar arthrodesis in the flail foot, 390.
Nes, C. P. van. Disturbances of skeletal growth after irradiation, 798.
Nevin, N. C. Book review, 397.
Newman, P. H. Intertransverse spinal fusion for spondylolisthesis (discussion), 187.
Spondylolisthesis (discussion), 792.
Nicholson, O. R., with Kirker, J. R. Workers' compensation, 807.
Nicoll, E. A. Discussion, 794.
Treatment of non-union of fractures of long bones (discussion), 792.
Nisbet, N. W. Symposium on the biological effects of phytohaemagglutinin, 195.
Noble, C. A. Hereditary onycho-osteodysplasia, 199.
Nolan, B. Principles of traumatic ischaemia in limbs (demonstration), 188.

O

Oldroyd, D. A method for the determination of mucosubstances in small quantities of bone, 194.
Oppenheim, J. J. Symposium on the biological effects of phytohaemagglutinin, 195, 196.

Osmond-Clarke, H. Chondrosarcoma in diaphysial aclasis (discussion), 186.
Harrington instrumentation and spinal fusion (discussion), 586.
Intertransverse spinal fusion for spondylolisthesis (discussion), 187.
Treatment of non-union of fractures of long bones (discussion), 792.
O'Sullivan, B. J. Christmas disease, 384.
Owen, R. Book review, 602.
with Tsimboukis, B. Ischaemia complicating closed tibial and fibular shaft fractures, *268.
Oyston, J. K. Demonstrations, 197.

P

Parke, J. A. C., with Mosedale, M. B. Symposium on the biological effects of phytohaemagglutinin, 195.
Parke, W. Fracture-separation of proximal epiphysial epiphysis of humerus (discussion), 806.
Parson, V., with Krane, S. Rat epiphyseal cartilage glycolytic substrates in phosphate deficient rickets, 194.
Paterson, D. C., with others. Visit of the Travelling Fellows to North America 1966, 374.
Pearson, F. A. Symposium on spina bifida: aids to mobilisation, 383.
Percy-Lancaster, R. Backache in pregnancy and pelvic arthropathy, 199.
Phillips, R. S., with others. Venous drainage in osteoarthritis of the hip: a study after osteotomy, *301.
Piggot, J. Book review, 399.
Pillay, V. K. Haemangioma of the vertebra (discussion), 386.
Significance of the coraco-clavicular joint, 390.
Surgery in Potter's paraplegia (discussion), 388.
with Khong, B. T. Patellectomy for fracture, 391.
Platt, Sir H. Book review, 601.
Pollock, G. A., with Anderson, W. V. Leg equalisation by both shortening and lengthening (demonstration), 189.
with English, T. A. Transplantation of the hamstring muscles in cerebral palsy, *80.
Potassick, A. Hereditary onycho-osteodysplasia (discussion), 199.
Povey, R. W. Results of laminectomy for prolapsed lumbar disc, 197.
Pugh, P. D. G., with Hesketh, K. T. Early assessment of internal fixation of bones (demonstration), 590.
with others. Heterogenous bone implants (demonstration), 590.
Transfer of the neurovascular skin pedicle in the partly anaesthetic hand of leprosy (discussion), 584.

Q

Quibell, E. P. History of Chailey Heritage, 382.

R

Rai, M. Y. Costo-transversectomy for tuberculosis of the thoracic spine, 801.
Rasmussen, B. Dupuytren's contracture (discussion), 793.
Perthes' disease: a study of thirty-four hips observed for thirty years, *102.
Syme's amputation: result after forty-four years, *142.
Raval, A. D. Bone and joint tuberculosis in Uganda, 594.
Relton, J. E. S., with Hall, J. E. An operation frame for spinal fusion, *327.
Richard, D. Arthroplasty of the elbow, 594.
Richmond, J. Jackson.- See Jackson-Richmond, J.
Rigal, W. M. Experiments in leg lengthening, 184.
Skeletal growth (exhibit), 189.
Rigby-Jones, G. Intertransverse spinal fusion for spondylolisthesis (discussion), 187.
Roaf, R. Book reviews, 206, 812.
Harrington instrumentation and spinal fusion (discussion), 586.
High incidence of hiatal hernia in the scoliosis of childhood (discussion), 187.
Tom Price (obituary), 800.
Training of the orthopaedic surgeon, 188.
Roarty, J. S. Ischaemic contracture of limbs from tight splintage (discussion), 388.
Ischaemic necrosis of the flexor muscles of the forearm, 390.
Roberts, G. C. Lloyd.- See Lloyd-Roberts, G. C.
Roberts, N. Book review, 205.
Dupuytren's contracture (discussion), 793.
Robins, R. H. C. Training of the orthopaedic surgeon, 188.
Roebuck, D. J. Haemangioma of the vertebra, 386.
Rusbroek, D., with Stiles, P. J. Non-union after intertrochanteric osteotomy with internal fixation for osteoarthrosis of the hip, *462.
Rosenweig, N. Unstable injuries of the cervical spine, 200.
Ross, K., with Sweetnam, D. R. Surgical treatment of pulmonary metastases from primary tumours of bone, *74.

S
St Clair Strange, F. G. See Strange, F. G. St C.
Salz, M. Symposium on innomin ate osteotomy for congenital dislocation and subluxation of the hip, 593.
Sankaran, B. Hypercalcaemia in malignant tumours of soft tissues, 800.
Studies on skeletal fluorosis, 801.
Tibialis posterior transplant for club foot (discussion), 800.
Sanmugasundaram, T. K. Fibrosis of the quadriceps, 801.
Sarkany, I. Symposium on the biological effects of phytohaemagglutinin, 196.
Saunders, J. B. de C. M. Dynamic anatomy of the clavicle and its surgical excision (film), 189.
Savill, D. L. Rheumatoid arthritis (demonstration), 188.
Scharin, L. Unander.- See Unander-Scharin, L.
Schramm, R. Accident prevention, 593.
Schutt, W. H., with Wynne-Davies, R. Genetics and orthopaedics (exhibit), 189.
Scott, J. C. Book review, 600.
The immediate treatment of "killing" injuries, 794.
Scott, J. H. S. Intertransverse spinal fusion for spondylolisthesis, 187.
Trauma (demonstration), 188.
with others. Osteomalacia: a common disease in elderly women, *403.
Seddon, Sir H. J. Book review, 601.
Monostotic fibrous dysplasia (discussion), 586.
Nerve isolation techniques (discussion), 186.
Philip Wiles (obituary), 580.
Transfer of the neurovascular skin pedicle in the partly anaesthetic hand of leprosy (discussion), 584.
Sekhon, G. S. Kohlu injuries, 800.
Sethi, P. K. Congenital pseudarthrosis of the tibia.
Modified Phemister's technique for non-union of fractures, 800.
Seymour, N. Late results of naviculo-cuneiform fusion, *558.
Shahane, M. N. Quadriceps contracture, 800.
Shapiro, I. M. The phospholipids of calcified tissues, 381.
Sharrard, W. J. W. Paralytic deformity in the lower limb, *731.
Patterns of spinal cord lesion in myelomeningocele (demonstration), 188.
Shaw, N. E., with others. Visit of the Travelling Fellows to North America 1966, 374.
Sheilswell, M. E. Compression plates (demonstration), 591.
Shuttleworth, C. A., with Leaver, A. G. Observations on the composition of peptides obtained from bone and dentine, 381.
Silva, J. F. Arthroplasty of the elbow, 391.
Surgery in Pott's paraplegia (discussion), 388.
Simpson, D. C., with others. Powered prostheses (demonstration), 189.
Singh, H. Tibialis posterior transplant for club foot (discussion), 800.
Singh, P. Discussions, 386, 391.
Simette, C. Neurological crippling in childhood, 594.
Skevis, X., with Helal, B. Unrecognised dislocation of the hip in fractures of the femoral shaft, *293.
Slunggaard, U. Demonstration, 794.
Smillie, G. B. Congenital dislocation of the hip, 805.
Smyth, E. H. J. Subcapital fractures of the neck of the femur (demonstration), 590.
Sofield, H. A. Training of the orthopaedic surgeon, 188.
Solomon, L. Chondrosarcoma in diaphysial aclasis, with a comment on the etiology of the cartilage-capped exostosis, 186.

* Indicates full article.
Somerville, E. W. Arthrodesis of the hip, 379.
Arthrodesis of the hip (discussion), 793.
Results of treatment of 100 congenitally dislocated hips. *258.

Soper, K. C., with Katz, M. P., and Grogono, B. J. S.
Etiology and treatment of congenital dislocation of the knee, *112.

Souter, W. A. The boutonnière deformity: a review of 101 patients with division of the central slip of the extensor expansion of the fingers, *710.

Cancellous bone grafting (demonstration), 188.

Speirs, R. I. Affinity between certain stains and hydroxyapatite, 193.

Spray, P. Genu valgum in Nigeria, 594.

Spring, W. E. Chondromalacia of the patella (demonstration), 390.

Prosthetic replacement for fractures of the neck of the femur, 388.

Srivastava, A. N. Smallpox arthritis, 801.

Stack, H. G. Book review, 207.

Stack, M. V. Biochemistry of enamel matrix, 380.

Stark, G., with Baker, G. C. W. Patterns of spinal cord lesion in myelomeningocele, 187.

Stark, R. F. Osteotomy of first metatarsal neck for hallux valgus, 197.


Stiles, P. J. Spinal chordoma, 187.


Strange, F. G. St C. Amputation through the knee (discussion), 385.
Book review, 810.

Strode, M. Symposium on spina bifida: varieties of urinal, 383.

 Sugars, J. C. Congenital dislocation of the hip (discussion), 384.

Swanson, S. A. V., with others. Permeability of cartilage, 185.

Sweet, M. B. E. Assessment of the elderly injured patient, 199.

Sweetnam, D. R., with Ross, K. Surgical treatment of pulmonary metastases from primary tumours of bone, *74.

Sybrandy, S. Skeletal changes in acute leukaemia in children, 798.

T


Talwalkar, A. K. Internal fixation without external support for closed fractures of the radius and ulna, 391.

Skin arthroplasty of the hip (discussion), 391.
Surgery in Pott’s paraplegia (discussion), 388.
with Talwalkar, C. A. Congenital pseudarthrosis of the tibia, 800.

Talwalkar, C. A., with Talwalkar, A. K. Congenital pseudarthrosis of the tibia, 800.

Tappend, P. W. Crush injuries of the foot, 807.

Rheumatoid arthritis (discussion), 807.

Taylor, A. R. Non-union of fractures of the clavicle, 383.

Teigland, J. Demonstration, 794.

Thomas, F. B. Arthrodesis of the subtalar joint, *93.

Thomas, G. E. Discussion, 794.

Dupuytren’s contracture (discussion), 793.


Toit, G. T. du. See Du Toit, G. T.

Townes, P. L., with Duthie, R. B. The genetics of orthopaedic conditions, *229.

Townsend, A. C., with Kienerman, L., and Ockenden, B. G. Osteosarcoma occurring in osteogenesis imperfecta, *314.

Treadwell, B. L. J. Rheumatoid arthritis, 807.

Trueta, J. High incidence of hiatal hernia in the scoliosis of childhood (discussion), 187.

Permeability of cartilage (discussion), 185.

Tsibouchis, B., with Owen, R. Ischaemia complicating closed tibial and fibular shaft fractures, *268.

Tucker, W. E. Non-union of fractures of the clavicle (discussion), 384.

U

Unander-Scharin, L. Management of fibrosarcoma (discussion), 792.


V

Van der List, P. See List, P. van der.

Vanderpool, D. W. Scoliosis (demonstration), 189.
Scoliosis in the elderly, 187.

Van Nes, C. P. See Nes, C. P. van.

Vaughan-Jackson, O. J. Book review, 395.

Dupuytren’s contracture (discussion), 793.

Functional evaluation of the hand in rheumatoid arthritis (discussion), 585.

Verma, A. C., with Aggarwal, N. D. Calcaneus deformity of foot, 801.

Verma, B. P. Fracture healing after intramedullary nailing, 799.

Vinken, P. J., with Braakman, R. Unilateral facet interlocking in the lower cervical spine, *249.

Vyaghreswarudu, C. Osteoastroma (discussion), 800.

W


Wainwright, D. Book review, 396.
The modern limb prosthesis (discussion), 794.

Walker, P. G. Enzyme degradation of bone and cartilage, 382.

Walsmsley, R., with Whiston, T. B. Experimental tenodesis (exhibit), 189.

Ward, F. G. Amputation through the knee (discussion), 585.


Reconstruction of the tetraplegic hand (discussion), 385.
The thumb in leprosy (discussion), 385.

Watson, K. Haemangioma of the vertebral (discussion), 386.

The JOINT OF BONE AND JOINT SURGERY

* Indicates full article.
<table>
<thead>
<tr>
<th>Author</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watson, R., with Joseph, J.</td>
<td>Telemetering electromyography of muscles used in walking up and down stairs, *774.</td>
</tr>
<tr>
<td>Watson-Jones, Sir R.</td>
<td>Amputation through the knee (discussion), 585.</td>
</tr>
<tr>
<td>Yabsley, R. H., with Dewar, F. P.</td>
<td>Fracture-dislocation of the shoulder, *540.</td>
</tr>
<tr>
<td>Yano, T.</td>
<td>Familial incidence of spondylolysis, 390.</td>
</tr>
<tr>
<td>Williams, J. N.</td>
<td>Cone arthrodesis of the first metatarso-phalangeal joint, *98.</td>
</tr>
<tr>
<td>Williams, P. F. (continued)</td>
<td>Quadriceps contracture and its relation to habitual dislocation of the patella, 389.</td>
</tr>
<tr>
<td>Williams, P. F.</td>
<td>Review of 100 cases of Legg-Calvé-Perthes' syndrome treated by recumbency (discussion), 387.</td>
</tr>
<tr>
<td>Williams, P. F.</td>
<td>Surgery for spina bifida, 805.</td>
</tr>
<tr>
<td>Wilson, J. N.</td>
<td>Experimental bone growth, 586.</td>
</tr>
<tr>
<td>Wyke, B. D., with Freeman, M. A. R.</td>
<td>An experimental study of articular neurology, 185.</td>
</tr>
<tr>
<td>Wynne-Davies, R.</td>
<td>Joint laxity, 379.</td>
</tr>
</tbody>
</table>

* Indicates full article.
SUBJECT INDEX

A

Abysinia. See Ethiopia.
Accessory bones: os centrale, avascular necrosis of, 197.
Accident(s)
services in Britain, 794.
surgery in Africa, 593, 594.
See also Fractures; Injuries; and under parts of body involved.
Achilles tendon. See Tendo calcaneus.
Acrylic: acrylic inlay for instability of cervical spine, 384.
Africa
bone-setters of, a necessary evil, 587.
rehabilitation in second symposium on, 593.
Albers-Schönberg disease. See Osteopetrosis.
Amino acids. See Proline.
Amputations
knee disarticulation, 585.
Syne's, 189.
— by Joseph Lister after 66 years, *144.
— result after 44 years, *142.
See also Artificial limbs.
Amsterdam University, chair of orthopaedic surgery, appointment of O. Verbeek to, 799.
Anaesthesia in operative treatment of scoliosis, 328.
Anderson, W. V., technique of leg lengthening, 184, 189.
Aneurysm, arteriovenous. See Fistula, arteriovenous.
Angiography. See Venography.
Angioma. See Haemangioma.
Ankle
arthrodasis, pantalar, for flail foot, 390.
calcification, periaricular, *562.
ligaments, injuries of, neurological abnormalities after, experimental study, 185.
Ankylosing spondylitis
osteotomy of spine in, 384.
radiotherapy for, 198.
Amputations, history of, *4; editorial, 1.
Appliances. See Orthopaedic appliances.
Arachnoiditis complicating myelography, 514.
Arteries, brachial, displacement of, in supracondylar fractures of humerus, 806.
Arteriovenous fistula, traumatic, of posterior tibial vessels, *771.
Arthritis, rheumatoid, 556, 807.
Arthritis
degenerative. See Osteoarthritis.
pyogenic, experimental study, 801.
rheumatoid
— arthritis in, 807.
— etiology, genetic factor in, 231.
— foot in: deformity of forefoot, arthroplasty for, *552.
— hand in, functional evaluation of, 584.
— knee in
— rupture of capsule of, 200.
— surgery of, 795.
— spine in, cervical
— lower cervical subluxation with tetraplegia, *46.
— treatment, 188.
— synovectomy, 197, 200.
tuberculous. See under Tuberculosis. variolosa, 391.

Arthrodesis. See under names of joints; and under Spine.
Arthropathy
Charcot's, in congenital indifference to pain, *704.
haemophilic
— experimental: effects of blood and a fibrinolytic enzyme on articular cartilage, *342.
— treatment, 590.
Arthroplasty. See under names of joints.
Artificial limbs, 793.
for developing countries, 594.
lower
— early fitting of, 806.
— immediate fitting of, 377.
upper, externally powered, an engineering appraisal of, *333.
See also Amputations.
Association of Surgeons of East Africa, annual meeting, 1966, 594.
Association of Surgeons of India, Orthopaedic Section, meetings, 1966, 799, 800, 801.
Australian Orthopaedic Association, annual meeting, 1966, 364.

B
Back pain, low
diagnosis and treatment of lumbar instability, *520.
in pregnancy, 199.
treatment, injection of glucose sclerosant solution, 198.
See also Intervertebral discs, lesions of.
Bends. See Caisson disease.
Bishop, Thomas Henry (obituary), 582.
Bladder, urinary
paralysis of: urinals for spina bifida patients, 383.
Blood. See terms beginning with Haem-
Blood vascular system. See Arteries; Arteriovenous fistula; Arteritis; Haemangioma; Ischaemia; Thrombosis.
Bone and bones
accessory: os centrale, avascular necrosis of, 197.
age changes
— in cancellous bone, 194.
— in density of femoral diaphysis, *781.
— blood supply of patella, *563.
changes in acute leukaemia in children, 798.
changes in thalassaemia and allied haemoglobinopathies, 389.
density pattern in femoral diaphysis, variation with age, *781.
diseases. See specific terms; and other subheadings of Bone.
fibrous dysplasia, monostotic, 586.
fluorosis, 801.
grafts and grafting
— cancellous, 188.
— heterogenous, 590.
growth
— disturbances after irradiation, 798.
— longitudinal
— experimental study, 583.
— stimulation of, due to fracture of femoral shaft, 806.
infections. See Osteomyelitis; Tuberculosis.
matrix components of (symposium), 379.
Bone and bones (continued):
metabolism: uptake of radioactive isotopes by living
mineral: affinity between hydroxyapatite and certain
stains, 193.
mucosubstances in, micromethod for determination
of, 194.
necrosis: experimental comparison of living and
Paget's disease
— bone formation in, quantitative study using
tetracycline markers, *146.
in Jamaica, 804.
prostheses: pitfalls in major prosthetic replacement
of bone, 387.
radiation injury to: growth disturbances, 798.
tuberculosis. See under Tuberculosis.
tumours
— chondrosarcoma in diaphysal aclerosis, 186.
— chordoma, 187.
— desmoplastic fibroma, *560.
— fibrosarcoma, 792.
— haemangiomá of spine, 386.
in Jamaica, 802.
in malignant, primary, pulmonary metastases from,
surgical treatment of, *74.
— osteoclastoma, treatment, operative, 800.
— osteoid osteoma, 200.
— osteosarcoma
— in osteogenesis imperfecta, *314.
— increased epiphysial density in, *757.
— treatment, 590.
— operative, 801.
See also Epiphyses; Epiphysial cartilage.
See also names of bones.
See also terms beginning with Ost-.
Bone and Tooth Society, meetings, 1966, October, 193;
1967, January, 379.
Bone-setters of Africa, a necessary evil, 587.

Book reviews:
Beetham, W. P., jun., et al. Physical examination of the
joints, 1965, 207.
Böhler, L. and Böhler, J. Treatment of fractures,
3th English edition, supplementary volume, 1966,
602.
Brain, W. R., baron, and Wilkinson, M. Cervical
Brocher, J. E. W. Die Wirbelsäulenleiden und ihre
Codman, E. A. The shoulder, 1934 (reprint, 1965).
206.
Crock, H. V. The blood supply of the lower limb
bones in man, 1967, 810.
Current Practice in Orthopaedic Surgery, Vol. 3,
1966, 396.
Dible, J. H. Pathology of limb ischaemia, 1966, 394.
Edmunds, V., and Socrer, C. G., eds. Ethical
responsibility in Medicine, 1967, 601.
Evans, F. G., ed. Studies on the anatomy and
Gardner, A. W., and Rylance, P. J. New essential
Geist, H. Psychological aspects of rheumatoid
arthritis, 1966, 208.
Goodman, F. G., and Schoedinger, G. R., III.
Questions and answers in orthopaedics, 1966, 600.
Gray, J. D. A., and Discombe, G. Clinical pathology,
1966, 204.
Harris, P., ed. Spinal injuries, 1966, 396.
Harris, W. H., Jones, W. N., and Aufranc, O. E.,
* Indicates full article or appreciable part.

Book Reviews (continued):
Herschen, F. The history of diseases, 1966, 399.
Hill, A. G. S., ed. Modern trends in rheumatology
—1, 1966, 813.
Holt, K. S., and Reynell, J. K. Assessment of
Hillenworth, Sir C., ed. Wound healing, 1966, 204.
Jackson, W. P. U. Calcium metabolism and bone
disease, 1967, 814.
Kenedi, R. M., ed. Biomechanics and related bio-
engineering topics, 1965, 207.
Lange, M. Lehrbuch der Orthopädie und Trauma-
LeNoir, J. L., III. Congenital idiopathic talipes,
1966, 600.
McKusick, V. A. Heritable disorders of connective
Meyer, J. Treatment of Legg-Calvé-Perthes' dis-
ease, 1966, 399.
Moberg, E. Emergency surgery of the hand, 1967,
813.
Netherlands Committee on Bone Tumours. Radi-
Nicola, T. Atlas of orthopaedic exposures, 1966,
208.
Pontville, M. de, et al. L'ostéochondrose synoviale,
1966, 602.
Reynolds, J. The roentgenological features of
sickle cell disease and related hemoglobinino-
pathies, 1965, 205.
Scheier, H. Prognose und Behandlung der Skoliose,
1967, 812.
Valentin, B. Geschichte der Fusspflege, 1966, 396.
Witt, A. N., Cotta, H., and Jäger, M. Die ange-
borenen Fehlbildungen der Hand und ihre operative
Behandlung, 1966, 207.
Wynn Parry, C. B. Rehabilitation of the hand,
Zorab, P. A., ed. Proceedings of a symposium on
scoliosis (1965), 602.
Boutonnière deformity, review of 101 patients,
*710.
Braces. See Orthopaedic appliances; Splints.
Brachial artery displacement in supracondylar fractures
of humerus, 806.
Brachial plexus injuries, triceps brachii paralysis in,
transposition of latissimus dorsi for, *135.
British Orthopaedic Association
election of fellows, etc., 190, 591.
meetings, 1966, autumn, 184; 1967, spring, 583;
1968, June, with German Orthopaedic Association,
808.
Robert Jones Gold Medal and Prize, awards, 1965
and 1966, 808.
Robert Jones Golf Cup competition, 591.
British Orthopaedic Travelling Club, meeting, 1967,
June, 791.
Brown, J. T., sliding nail-plate, 615.
Browne, Sir Denis John Wolko (obituary), 368.
Brucellosis: monarticular brucellar arthritis in chil-
dren, *652.
Burrows, Harold Jackson, awarded C.B.E., 791.

C

Caisson disease, treatment, current concepts, 588.
Calcaneal tendon. See Tendo calcaneus.
Calcaneo-navicular bar, excision of, for painful spas-
motic flat foot, *281.
Calcaneus, fractures, subtalar arthritis after, arthro-
desis for, *93.
Calciﬁcation, periarticular, of ankle, *562.
Calcified tissues
affinity between hydroxyapatite and certain stains, 193.
5th European symposium on, 795.
matrix components of (symposium), 379.
Calcinosi, tumoral, *698.
Calcium
See also Hypercalcaemia.
Calf, synovial cysts of, in rheumatoïd knee, 200.
Calvé-Legg-Perthes' disease. See Osteochondritis juveniles of hip.
Canada, orthopaedics in, report of Travelling Fellows, 374.
Cancer. See Tumours, malignant.
Carpal tunnel syndrome with tarsal tunnel syndrome, 87.
Carpus. See Wrist.
Cartilage
articular
— age changes in, patterns of, in elbow joint, *175.
— effect of blood and a fibrinolytic enzyme on, *342.
— permeability of, 185.
epiphyseal
— changes in rickets; glycolytic substrates in rats, 194.
— transplantation of; fate of fibular transplants for congenital absence of radius, *762.
— See also Bone growth.
of epiphyses, dual nature of, *351.
semilunar. See Meniscotomy.
tumours of: synovial chondromatosis, *530.
See also Terms beginning with Chondr-.
Cerebral palsy
incidence in Nigeria, 594.
knee flexion deformity in, transfer of hamstrings for, *80.
lower limb deformity in, *731.
treatment, operative, 389.
— indications for, 199.
Cervical spondylisis, treatment, arthrodesis, anterior, simple method of, 197.
Chailey Heritage, history of, 382.
Charett's arthropathy in congenital indifference to pain, *704.
Chemotherapy of cancer, 586.
Chitty, Hubert (obituary), 581.
Chondromacia patellae, 390.
early results of a conservative operation, *495.
Chondromatosis, synovial, *530.
Chondrosarcoma
in diaphyseal acasis, 186.
in Jamaica, 802, 804.
Chordoma, 187.
Chymopapain
See also Papain.
Clavicle
dynamic anatomy of, 189.
fractures, non-union of, 383.
Claw hand, mechanism of, 185.
Claw toes, arthroplasty of forefoot for, *552.
Claw foot, 583.
etiology, 230.
in Uganda, 594.
treatment
— continuous correction from birth, 200.
— tibialis posterior transfer, 800.
— wedge excision of calcaneo-cuboid joint, 792.
Clav hand, radial, 587.
treatment, 794.
— fibular transplantation, fate of transplants after, *762.
— operative, 392.
* Indicates full article or appreciable part.

Commonwealth Paraplegic Games, Second, 198.
Congenital abnormalities
/genetics of, *229.
indifference to pain, *704.
See also specific terms; and under parts of body involved.
Connective tissue, phospholipids in, extracellular bound, in developing mouse tail, 193.
Contractures
Dupuytren's, treatment, operative, 793.
— Z-plasty in, *448.
— paralytic, in lower limb, *731.
Volkmann's ischaemic, 188.
— due to tight splintage, 388.
— of forearm, 390.
— of lower limb complicating closed tibial and fibular shaft fractures, *268.
See also under parts of body involved.
Coraco-clavicular joint, significance of, 390.
Costo-transversectomy for tuberculosis of thoracic spine, 801.
Coxa plana. See Osteochondritis juvenilis of hip.
Coxa vara, adolescent. See Femur, epiphysis, upper, slipping of.
Cruciate ligaments, absence or hypoplasia of, in congenital dislocation of knee, *112.
Cysts, synovial, of calf in rheumatoïd knee, 200.
Cytotoxic agents in surgery, 586.

D
Dawson, Richard Henry (obituary), 789.
Decompression sickness. See Caisson disease.
Deformities
congenital, genetics of, *229.
paralytic, in lower limb, *731.
See also specific terms; and under parts of body involved.
Denham compression plate, 591.
Dens, congenitally separate, occipito-cervical fusion for, *33.
Desmoplastic fibroma of bone, *560.
Deutsche Orthopädische Gesellschaft. See German Orthopaedic Association.
Diaphragm, rupture of, complicating fractures of pelvis, 31.
Diaphragmatic hernia, high incidence in scoliosis of childhood, 187.
Diaphragmatic aclerosis. See Multiple exostoses.
Disability, workers' compensation for, 807.
Discography, 502.
Discs, intervertebral, lesions of complicating fractures of pelvis, 29.
simulated by epidural abscess, 385.
treatment
— flexion exercises, 806.
— laminectomy, 197.
See also Back pain, low.
Dislocations. See under names of joints.
Drop foot, paralytic, treatment
hemitransplantation of tendo calcaneus, 741.
tenodesis, 743.
tibialis posterior transfer, alternative method, 388.
Dupuytren's contracture, treatment, operative, 793.
Z-plasty in, *448.
Dutch Orthopaedic Society. See Netherlands Orthopaedic Society.

E
Edelstein, Joseph Melvin (obituary), 182.
Education in orthopaedics, 188.

THE JOURNAL OF BONE AND JOINT SURGERY
Eggers, G. W. N., hamstring transfer in cerebral palsy, *80.

Elbow
arthroplasty, 391, 594.
calcification around: tumoral calcinosis, *698.
congenital anomalies of, in nail-patella syndrome, 169.
dislocations, unreduced, arthroplasty for, 391.
injuries. See also under Humerus.
osteochondritis; pattern of ageing of articular cartilage, *175.
paralysis, extensor, transposition of latissimus dorsi for, *135.

Electromyography, telemetering, of muscles used in walking up and down stairs, 584, *774.

Engineering, applications to medical science, 192.

Enzymes
degradation of bone and cartilage by, 382.
proteolytic. See Papain; Chymopapain; Fibrinolysis.

Epiphyses
cartilage of, dual nature of, *351.
increased density of, in bone sarcoma, *757.
transplantation of: fate of fibular transplants for congenital absence of radius, *762.
See also under names of bones.

Epiphysical cartilage
changes in rickets: glycolytic substrates in rats, 194.
See also Bone growth.

Ethiopia:
Second Symposium on Rehabilitation in Africa, 293.

European Association of Radiology: Symposium on Ossium (announcement), 808.

European Symposium on Calcified Tissues (Fifth), 795.

Exostoses, osteocartilaginous, hereditary multiple, chondrosarcoma in, 186.

Extremities. See Limbs; see also Artificial limbs.

F

Fatigue fractures. See Fractures, stress.

Femoral nerve compression by iliacus haematoma, *748.

Femur
architecture: density pattern in diaphysis, variation with age, *781.

Fatigue at upper end of, 184.
opposite, at lower end of, for chronic arthritis of knee, 795.
osteotomy at upper end of:
— for congenital dislocation of hip, 258.
— for idiopathic avascular necrosis of femoral head, 200.
— for osteoarthritis of hip
— advanced, 386.
— effect on venous drainage, *301.
— varus osteotomy, 184.
resection-angulation osteotomy, 583.
— for osteoarthritis of hip, 387.
shortening of, surgical, 185.

Fibrinolysis:
effects of blood and a fibrinolytic enzyme on articular cartilage, *342.

Fibroma of bone, desmoplastic, *560.

Fibrosarcoma, 792.

Fibrous dysplasia of bone, monostotic, 586.

Fibula
congenital absence of, 197.
— new operation for, *59.
transplantation of, for congenital absence of radius, fate of transplants after, *762.

Fibular tunnel syndrome, 384.

Film review: Surgical treatment of open wounds, 399.

Finger(s)
joints, anatomy of volar part of capsule of, *362.
See also Hand; Thumb.

Fistula, arteriovenous, traumatic, of posterior tibial vessels, *771.

Flat foot
mobile, naviculo-cuneiform fusion for, late results, *558.
spasmodic, excision of calcaneo-navicular bar for *281.

Flexor pollicis longus tendon translocation to restore opposition, *458.

Fluorescence microscopy. See Tetracyclines.

Fluorosis, skeletal, 801.

Foot
calcaneus deformity, transfer of peroneus brevis to tendo calcaneus for, 800.
club, 583.
— etiology, 230.
— in Uganda, 594.
— treatment
— continuous correction from birth, 200.
— tibialis posterior transfer, 800.
— wedge excision of calcaneo-cuboid joint, 792.
deformities of forefoot, arthroplasty of metatarso-phalangeal joints for, *552.
drop, paralytic, treatment
— hemi-transplantation of tendo calcaneus, 741.
— tenodesis, 743.
— tibialis posterior transfer, alternative method, 388.
— mobile, naviculo-cuneiform fusion for, late results, *558.
— spasmodic, excision of calcaneo-navicular bar for, *281.
injuries, crushing, 807.
paralysis, treatment, arthrodesis, pantalar, 390.
See also Ankle; Tarsus; Toes.

Forearm
fractures, 801.
— of lower ends of both bones of, in children, 583.
— treatment, medullary nailing with square nails, 391.

* Indicates full article or appreciable part.
Forearm (continued):
Volkman's ischaemia of, 390.
— due to tight splintage, 388.
See also Radius.
Forefoot, arthroplasty of, *552.
Fracture(s)
compound, osteomyelitis after, in Singapore, 385.
healing
— effect of delay in internal fixation, *571, 799.
— in vitro, effect of environmental factors, 193.
neuropathic, in congenital indifference to pain, *704.
non-union and delayed union, treatment, 791.
— bone grafting, cancellous, 188.
services. See Accident services.
stress, of metacarpal bone in horses and of tibia in man, *310.
treatment
— closed reduction, hazards of, 190.
— internal fixation, 590.
— delayed, experimental studies, *571, 799.
plate fixation: compression plate, 391, 591.
See also under names of bones.
Fragilitas ossium. See Osteogenesis imperfecta.

G
Galeazzi fracture-dislocation, 387.
Gastrectomy, osteomalacia complicating, 403.
Genetics of orthopaedic conditions, *229.
Genu recurvatum congenitum, *121.
etiology and treatment, *112.
Genu valgum in Nigeria, 594.
Geriatrics
geriatric orthopaedic units, 186.
injuries in the elderly, assessment of the patient, 199.
German Orthopaedic Association
joint meeting with British Orthopaedic Association,
June 1968, 808.
joint meeting with Italian Society of Orthopaedics
and Traumatology, 1966, 393.
Giant-cell tumour of bone. See Osteoclastoma.
Girdlestone's pseudarthrosis. See under Femur,
resection.
Glutei, anomalous attachment of, in nail-patella syn-
drome, *166.
Golden's operation for hallux valgus, 198.
Gonadal dysgenesis with Madelung's deformity, *66.
Gee's subtalar arthrodesis, modification of, for sub-
talar arthritis, *93.
Grucia, A., bifurcation operation for congenital
absence of fibula, *59.

H
Haemangioma
involving tendons, *138.
of spine, 386.
Haemarthrosis, experimental: effects of blood and a
fibrinolytic enzyme on articular cartilage, *342.
Haematoma of iliacus, *748.
Haemoglobinopathies
bone changes in, 389, 594.
genetics of, 237.
Haemophilia
arthropathy of, treatment, 590.
experimental haemarthrosis: effects of blood and a
fibrinolytic enzyme on articular cartilage, *342.
iliacus haematoma complicating, *748.
Haemorrhage
during spinal fusion, frame designed for reduction
of, *327.
Hallux rigidus
due to leiomyoma, 52.
treatment, arthrodesis, *544.
— cone arthrodesis, *98.
Hallux valgus, treatment
arthrodesis, *544.
— cone arthrodesis, *98.
Golden's operation, 198.
osteotomy, metatarsal, 806.
— distal, 197.
Hamstrings transfer in cerebral palsy, *80.
Hand
club, radial, 587.
— treatment, 794.
— fibular transplantation, fate of transplants
after, *762.
— operative, 392.
Dupuytren's contracture, treatment, operative,
793.
— Z-plasty in, *448.
fractures, metacarpal and phalangeal, 387.
paralysis
— claw finger, mechanism of, 185.
— in tetraplegia, rehabilitation in, 385.
rheumatoid, functional evaluation of, 584.
sensibility, restoration of, neurovascular pedicle
transfer in leprosy, 584.
surgery, Z-plasty in, *448.
tendons
— extensor
— dislocation of, *324.
— injuries of: boutonnière deformity, review of
101 patients, *710.
— flexor
— injuries of, assessment of function after re-
construction of, *424.
See also Wrist; Fingers; Thumb.
Harrington instrumentation of spine for scoliosis, 199,
585.
Haslar Royal Naval Hospital, clinical demonstration
at, 590.
Head injuries, orthopaedic aspects of, 586.
Heilbronner, Edgar (obituary), 371.
Hernia, diaphragmatic, high incidence in scoliosis of
childhood, 187.
Hip
arthrodesis, 379, 793, 798.
arthroplasty
— replacement
— for fractures of femoral neck, 388.
— McKee-Farrar prosthesis, 593.
— resection-angulation osteotomy, 583.
— for osteoarthritis of hip, 387.
— skin arthroplasty, 391.
calcification around: tumoral calcinosis, *698.
disability grading, *644.
dislocation
— congenital, 384.
— diagnosis and treatment in newborn, 805.
— etiology, 230.
— experimental study, 583.
— treatment, 389, 794.
— early, problems in, 188.
— osteotomy of pelvis, 593.
— results in 100 hips, *258.
— paralytic, in spina bifida, 383.
— traumatic, 800.
— inferior, in child, *145.
— unreduced, in fractures of femoral shaft,
*293.
— unreduced, treatment of, 594.

* Indicates full article or appreciable part.
Hip (continued):
osteochondritis — etiology, 392.
— treatment — arthroplasty: resection-angulation osteotomy,
583.
— operative, 387.
— osteotomy
— — in advanced cases, 386.
— — varus, 184.
— venous drainage in, study after osteotomy, *301.
osteochondritis dissecans following Perthes’ disease, 1108.
— follow-up of 34 hips after 30 years, *102.
— in congenital dislocation, 267.
— osteochondritis dissecans following, *108.
— treatment in recumbency, 386.
tuberculosis
— bilateral, 595.
— skin arthroplasty for, 391.
See also Femur.
Hohmann’s operation for hallux valgus, 197.
Holland
University of Amsterdam, chair of orthopaedic
surgery, appointment of de Verbeek to, 799.
University of Leiden, chair of orthopaedic surgery,
appointment of D. Mulder to, 799.
See also Netherlands Orthopaedic Society.
Horses, shin splints of, *310.
Hospitals. See names of hospitals.
Humerus
epiphyses — lower medial, injury to, before development of
ossific centre, *766.
— upper, fracture-separation of, 806.
fractures
— supracondylar
— infantile, *768.
— — neurovascular complications of, 806.
— see also Shoulder fracture-dislocation.
Hydroxyapatite, affinity between certain stains and,
193.
Hypercalcaemia in malignant tumours of soft tissues,
800.

I
Iliac horns. See Omycho-osteodysplasia.
Iliacus, haematoma of, *748.
Immunology: biological effects of phythaemagglutinin
(sympoism), 195.
Implants. See Surgical implants.
Incisions and their closure, 590.
India. See Association of Surgeons of India.
Industrial injuries, workers’ compensation for, 807.
Infantile paralysis. See Poliomyelitis.
Infections. See Arthritis; Osteomyelitis; Poliomyelitis.
See also Antiseptic surgery.
Injections, quadriceps contracture complicating, 389,
801, 806.
Injuries
in the elderly, assessment of the patient, 199.
industrial, workers’ compensation for, 807.
ski-ing, 587.
wringer, *722.
See also Accidents; Fractures; and under parts of
body involved.
Innominate bone. See Pelvis.
International Society of Orthopaedic Surgery and
Traumatology, congress, 1969, 598.
Intervertebral discs, lesions of (continued):
treatment — flexion exercises, 806.
— injection of chymopapain, *502; editorial, 401.
— laminectomy, 197.
See also Back pain, low.
Inflammation: rectal and anal injuries complicating
Intramedullary nailing
of femur, late distal migration of nail after, 197.
of forearm fractures using square nails, 391.
Irish Orthopaedic Club, meetings, 1966, 384.
Irradiation. See Radiation.
Ischaemia, Volkman’s, 188.
due to tight splinting, 388.
of forearm, 390.
of lower limb complicating closed tibial and fibular
shaft fractures, *268.
Isotopes, radioactive, uptake by living and dead bone
Italian Society of Orthopaedics and Traumatology
annual congress, 1966, 201.
joint meeting with German Orthopaedic Society,
1966, 393.

J
Jackson Burrows, Harold. See Burrows, Harold
Jackson.
Jamaica
bone tumours in, 802.
Second Commonwealth Paraplegic Games, 192.
Joint(s)
articular cartilage — age changes in, patterns of, in elbow joint, *175.
— dual nature of epiphyseal cartilage, *351.
— effect of blood and a fibrinolytic enzyme on,
*342.
— permeability of, 185.
haemarthrosis, experimental: effects of blood and a
fibrinolytic enzyme on articular cartilage, *342.
laxity, 379.
lesions: multiple synovial swellings, 595.
neurology, experimental study, 185.
tuberculosis. See under Tuberculosis.
tumours. See Synovial chondromatosis.
See also Arthritis; Arthropathy.
See also names of joints.
Jones, Sir Robert
Gold Medal and Prize, awards, 1965 and 1966, 808.
Golf Cup competition, 591.
Journal of Bone and Joint Surgery
British Editorial Board, reception to Sir Harry Platt
on his 80th birthday, 192.
British volume
— bibliographer: death of T. H. Bishop, 582.
— publishers: retirement of Charles Macmillan as
managing director, 592.

K
Keller operation for hallux valgus and hallux rigidus,
results compared with arthrodesis, *544.
Kidney disease, hereditary, in nail-patella syndrome,
necropsy report, *164.
Kiel bone grafting, 590.
Knee
arthroplasty, Shiers’, 795.
congenital anomalies of, in nail-patella syndrome,
168.
deformities. See also Genu valgum.
disarticulation, 585.

* Indicates full article or appreciable part.
Knee (continued):
- dislocation, congenital, *121.
- etiology and treatment, *112.
- flexion deformity in cerebral palsy, transfer of hamstrings for, *80.
- meniscectomy, degenerative changes in knee after, *584, *774.
- movements, rotational, 584.
- osteoarthritis, treatment
  - intra-articular surgery, *211.
  - operative, 200.
- osteotomy, double, 795.
- rheumatoid, rupture of capsule of, 200.
- stiffness, post-traumatic, quadricepsplasty for, 590.
- See also Patella.

Kyposis
- congenital, in myelomingingocele, *276.
- osteotomy of spine for, 384.

L
- Laminecetomy for prolapsed lumbar disc, 197.
- Lateral popliteal nerve. See Peroneal nerve, common.
- Leg. See Limbs, lower; see also Calf; Femur; Tibia.
- Legg-Perthes' disease. See Osteochondritis juvenilis of hip.
- Leiden University, chair of orthopaedic surgery, appointment of J. D. Mulder to, 799.
- Leiomyoma of limbs, *52.
- Leprosy
  - foot drop in, tibialis posterior transfer for, alternative method, 388.
  - hand in, neurovascular pedicle transfer in, 584.
- Leukaemia, acute, in children, skeletal changes in, 798.
- Ligaments
  - injuries of, neurological abnormalities after, experimental study, 185.
  - See also under names of joints.
- Limbs
  - amputation of. See Amputations.
  - artificial. See Artificial limbs.
  - lower
    - ischaemia, Volkman's
    - — complicating closed tibial and fibular shaft fractures, *268.
    - — due to tight splintage, 388.
    - — length equalisation
    - — surgical lengthening, 184, 189.
    - — surgical shortening, 185.
    — paralytic deformity in, *731.
    — See also Locomotion.
- Lipids. See Phospholipids.
- Lipocalcino-granulomatosis. See Tumor calcinosis.
- Lister, Joseph
  - centenary (editorial), 1.
  - centenary conference, Royal College of Surgeons of England, 201.
  - portraits, facing 1, 14.
  - Syme's amputation by, after 66 years, *144.
- Liverpool University
  - degree of M.Ch.(Orth.), 191.
  - McMurray memorial lecture, 1966, 190.
- Locomotion: telemetering electromyography of muscles used in walking up and down stairs, *584, *774.
- Looser's zones, *408.

Lung
- tumours metastatic from primary tumours of bone, surgical treatment of, *74.
- Lymphocytes, effect of phytohaemagglutinin on (symposium), 195.

M
- McKee-Farrar arthroplasty of hip, 593.
- Macmillan, Charles, retirement as managing director of E. & S. Livingstone Ltd., 592.
- McMurray Memorial Lecture, Liverpool University, 1966, 190.
- McMurray osteotomy for osteoarthritis of hip, 184.
  - advanced, 386.
  - effect on venous drainage, *301.
- Madelung's deformity, clinical and cytogenetic study, *66.
- Manipulation after knee surgery, 216, 227.
- Marble bones. See Osteopetrosis.
- Median nerve
  - compression in carpal tunnel with tibial nerve compression in tarsal tunnel, 87.
  - displacement in supracondylar fractures of humerus, 806.
- Medullary nailing. See Intramedullary nailing.
- Meningocele. See Spina bifida.
- Meniscectomy, degenerative changes in knee after, 584.
- Metatarsal bone, first, osteotomy of, for hallux valgus, 806.
  - basal osteotomy, 198.
  - distal osteotomy, 197.
- Metatarsophalangeal joints
  - arthroplasty of, for grossly deformed forefoot, *552.
  - first, arthrodesis of, *544.
  - — cone arthrodesis, *98.
- Mexican Orthopaedic Society, 10th meeting, 1968, 598.
- Millipore nerve isolation technique as adjunct to secondary nerve repair, 186.
- Mucosubstances in bone, 381.
  - micromethod for determination of, 194.
- Mulder, J. D., appointed to chair of orthopaedic surgery, University of Leiden, 799.
- Multiple exostoses, chondrosarcoma in, 186.
- Multiple myeloma in Jamaica, 802, 804.
- Muscle(s)
  - smooth muscle tumours of limbs, *52.
  - See also Electromyography.
  - See also Volkman's ischaemia.
  - See also names of muscles.
- Myelography, arachnoiditis complicating, 514.
- Myeloma in Jamaica, 802, 804.
- Myelomeningoceole. See Spina bifida.
- Myositis ossificans in unreduced anterior dislocation of hip, 288.

N
- Nail-patella syndrome. See Osteo-onychodysplasia.
- Nailing, intramedullary
  - of femur, late distal migration of nail after, 197.
  - of forearm fractures using square nails, 391.
- Nail-plates, trochanteric
  - Brown's, 615.
  - Ross-Brown, 615.
- Navicular bone (tarsal), osteotomy of, for congenital vertical talus, *618.
- Naviculo-cuneiform joint, arthrodesis of, late results, *558.
- Neck. See Spine, cervical; see also Spondylosis, cervical.
- Nederlandse Orthopaedische Vereniging. See Netherlands Orthopaedic Society.
Neoplasms. See Tumours.
Nephropathy. See Kidney disease.

Nerve(s)
— femoral, compression by iliacus haematoma, *748.
— injuries
— — secondary repair of, nerve isolation techniques as adjunct to, 186.
— median
— — compression in carpal tunnel with tibial nerve
— — compression in tarsal tunnel, 87.
— — displacement of, in supracondylar fractures of humerus, 806.
— peroneal, common
— — compression in fibular tunnel, 384.
— — paralysis, foot drop in, tibialis posterior transfer
— radial, compression by leiomyma, 53.
— sciatic, injury complicating fracture of femoral shaft
— — with dislocation of hip, 299.
— tibial, compression in tarsal tunnel, *87.
See also Brachial plexus.

Orthopaedic Society, meetings, 1966, 798.

Neurectomy for paralytic deformities in lower limb, 741.

Neuropathic arthritis. See Charcot's arthropathy.
Neurovascular pedicle transfer in partly anaesthetic
hand of leprosy, 584.

New Zealand
Governor General of, appointment of Sir Arthur
Porritt, 372.
— orthopaedics in, influence of Richard Henry
Dawson, 789.

New Zealand Orthopaedic Association, annual meet-
ing, 1966, 805.

North-West Metropolitan Regional Orthopaedic Club,

Nucleus pulposus. See Intervertebral discs.

O

Obituaries:
— Bishop, Thomas Henry, 582.
— Browne, Sir Denis John Wolko, 368.
— Chitty, Hubert, 581.
— Edelstein, Joseph Melvin, 182.
— Heilbronn, Edgar, 371.
— Price, Tom, 790.
— Wherrett, Reginald Ernest, 370.
— Wiles, Philip, 580.
— Occipito-cervical fusion, *33.
— Odontoid process. See Den. S.
— Oedema, post-traumatic, of hand after wringer in-
juries, 729.
— Onycho-osteyodysplasia, hereditary, 199.
— with iliac horns and nephropathy, necropsy report
— and anatomical dissection, *164.
— Orthopaedic appliances
for developing countries, 594.
See also Splints; Traction; Wheel-chairs.

Orthopaedic associations of English-speaking world,
5th joint meeting (announcement), 201.

Orthopaedic Research Society (British), meetings,
1966, 379.

Orthopaedics
— engineering and, 192.
— genetics in, *229.
— geriatric orthopaedic units, 186.
— in Africa: bone-setters, a necessary evil, 587.
— in Canada, report of Travelling Fellows, 374.
— in New Zealand, influence of Richard Henry Daw-
son, 789.
— in United States, report of Travelling Fellows, 374.

Orthopaedics (continued):
— training in, 188.
— Os calcis. See Calcaneus.
— Os centrale, avascular necrosis of, 197.
— Osgood-Schlatter disease, 591.
— Ossification, ectopic. See Myositis ossificans.
— Ostitis deformans. See Paget's disease of bone.
— Osteoarthritis of elbow: pattern of ageing of articular cartilage,
— — of hip
— — — etiology, 392.
— — — treatment
— — — — arthroplasty: resection-angulation osteotomy,
— — — — operative, 387.
— — — — osteotomy
— — — — — in advanced cases, 386.
— — — — — varus, 184.
— — venous drainage in, study after osteotomy,
— — — *301.
— of knee, treatment
— — — intra-articular surgery, *211.
— — — operative, 200.
— — — osteotomy, double, 795.
— of spine. See Spondylosis.
— of subtalar joint, arthrodesis for, *93.
— Osteochondritis dissecans of hip following Perthes' disease, *108.
— Osteochondritis juvenilis of hip
— — follow-up of 34 hips after 30 years, *102.
— — in congenital dislocation, 267.
— — osteochondritis dissecans following, *108.
— — treatment in recumbency, 386.
— of tibial tubercle. See Osgood-Schlatter disease.

Osteochondroma. See Exostoses, osteocartilaginous.

Osteochondromatosis, synovial. See Chondromatosis,
synovial.

Osteoclasmia
in Jamaica, 804.

Osteoarthritis
— treatment, operative, 800.

Osteogenesis. See Bone grafting; Bone growth;
Fracture healing.

Osteogenesis imperfecta, osteosarcoma occurring in,
*314.

Osteogenic sarcoma. See Osteosarcoma.

Osteoid osteoma, 200.

Osteomalacia, a common disease in elderly women,
*403.

Osteomyelitis
after compound fractures
— in Singapore, 385.
— of tibia, 197.
— complicating sickle-cell anaemia, 594.
— of spine: epidural abscess simulating disc hernia,
385.
— variolosa, 391.

Osteo-onychodysplasia, hereditary, 199.
— with iliac horns and nephropathy, necropsy report
— and anatomical dissection, *164.

Osteopathosisis, fracture of femoral neck in, 595.

Osteoporosis
— age changes in cancellous bone, 194.
— age changes in density of femoral diaphysis, *781.
— — spondylolysis, *781.
— — differential diagnosis from osteomalacia, *403.
— — scoliosis in, 187.

Osteosarcoma
in Jamaica, 802, 804.
— in osteogenesis imperfecta, *314.
— increased epiphysial density in, *757.

Osteotomy. See under names of bones.

Otto pelvis. See Protrusio acetabuli.
Paget's disease of bone
bone formation in, quantitative study using tetra-
cycline markers, *146.
in Jamaica, 804.
Pain, congenital indifference to, *704.
Pantalar arthrodesis for flat foot, 390.
Pantopaque myelography, arachnoiditis complicating, 514.
Papain
regulation of synthesis of matrix components of
tibia through selective depletion by, 381.
See also Chymopapain.
Paralysis
infantile. See Poliomyelitis.
paralytic deformity in lower limb, *731.
spastic
— complicating head injury, 586.
— See also Cerebral palsy.
See also under parts of body involved.
Paraplegia
in Africa, 593, 594.
Post's, *658; editorial, 605.
— radical surgical approach to, *668.
— treatment by operation, 388, *674.
Second Commonwealth Paraplegic Games, 198.
Pattella
blood supply, relation to ischaemic necrosis after
fracture, *563.
chondromalacia of, 390.
— early results of a conservative operation, *495.
dislocation, recurrent, relation to quadriceps con-
tracture, 389, 806.
Pattella-nail syndrome. See Osteo-onychodysplasia.
Pattenectomy
for fracture, 391.
for osteoarthritis of knee, 211.
Pelvis
congenital anomalies of, in nail-patella syndrome,
*166.
osteotomy of, for congenital dislocation and sub-
luxation of hip, 389, 593.
pelvic arthropathy and backache in pregnancy,
199.
Peripheral nerves. See Nerves.
Perkins' traction, 200.
Peroneal nerve, common
compression in fibular tunnel, 384.
paralysis, foot drop in, tibialis posterior transfer
for, alternative method, 388.
Peroneal spastic flat foot. See Flat foot, spasmocid.
Peroneus brevis transfer to tendo calcaneus for cal-
caneus deformity of foot, 800.
Perthes' disease. See Osteochondritis juvenilis of hip.
Pew planus. See Flat foot.
Pew valgus. See Flat foot.
Phenister bone grafting for non-union of fractures of
tibia, modification of, 800.
Phlebography. See Venography.
Phospholipids
extracellular bound, in connective tissues of de-
veloping mouse tail, 193.
of calcified tissues, 381.
Physiotherapy
after knee surgery, 216.
role in management of paralytic deformity, 736.
Phytohaemagglutinin, biological effects of (symposium),
195.
Plasmyctoma. See Myeloma.
Plastics. See Acrylics.
Plating of fractures
compression plate, 391, 590, 591.
of tibia, 197.
Platt, Sir Harry
awarded Doctor Honoris Causa, University of
Paris, 392.
80th birthday reception at British Editorial Office
of the Journal, 192.
Poliomyelitis
foot in, arthropathy of, pantalar, 390.
in Uganda, 189, 395, 801.
lower limb deformity in, *731.
Popliteal nerve, lateral. See Peroneal nerve, common.
Porritt, Sir Arthur Espie, appointed Governor General
of New Zealand, 372.
Posterior tibial vessels, traumatic arteriovenous fistula
of, *771.
Pott's disease. See Tuberculosis of spine.
Price, Tom (obituary), 790.
Pridie, Kenneth Hampden, his technique of intra-
articular surgery for degenerative arthritis of
knee, *211.
Princess Margaret Rose Hospital, clinical exhibition
at, 188.
Proline, radioactive, uptake by living and dead bone in
Prostheses
pitfalls in major prosthetic replacement of bone,
387.
See also Artificial limbs; and under parts of body
replaced.
Proteolytic enzymes. See Papain; Chymopapain;
Fibrinolysis.
Protrusio acetabuli, primary, etiology of, 806.
Pseudarthrosis
genetal, of tibia, 794, 800.
See also Fractures, non-union of.
Pseudarthrosis operation of Girdlestone. See under
Femur, resection.
Psosas abscess, pyogenic, non-spinal, 392.
Pulmonary. . . . See Lung.

Q
Quadriceps femoris contracture
and its relation to habitual dislocation of patella,
389, 806.
in genu recurvatum congenitum, *121.
progressive, in children, 800, 801.
Quadricepsplasty, 590.
Quadriplegia. See Tetraplegia.

R
Radial nerve compression by leiomyoma, 53.
Radiation therapy, disturbances of skeletal growth
after, 798.
Radioactive isotopes, uptake by living and dead bone
Radio-ulnar joint, inferior, dislocation of, with fracture
of shaft of radius, 387.
Radius
congenital absence of, 587.
— treatment, 794.
— — fibular transplantation, fate of transplants
after, *762.
— — operative, 392.
epiphysis, lower, premature fusion of. See
Madelung's deformity.
fractures
— of lower end of, with fracture of lower end of
ulna, in children, 583.
— of shaft of, with dislocation of inferior radio-
ulnar joint, 387.
— See also Forearm fractures.

* Indicates full article or appreciable part.

834 SUBJECT INDEX

THE JOURNAL OF BONE AND JOINT SURGERY
Splints
ischaemic contracture from tight splintage, 388. role of splintage in management of paralytic deformity, 737.
See also Orthopaedic appliances; Traction.
Spondylitis, ankylosing
osteoarthritis of spine in, 384. radiotherapy for, 198.
Spondylolisthesis
diagnosis and treatment of lumbar instability, *520.
treatment — arthrodesis, intertransverse, 187.
— excision of neural arch, 792.
Spondyloysis, familial incidence of, 390.
Spondylodesis
cervical, treatment, arthrodesis, anterior, simple method of, 197.
See also Back pain, low; Intervertebral discs, lesions of.
Staphylococcal infections. See Arthritis, pyogenic; Osteomyelitis.
Stoke-on-Trent Association of Engineers, Reginald Mitchell memorial lecture, 1966, 192.
Streptokinase, effect on articular cartilage, *342.
Stress fractures. See under Fractures.
Subtal joint, arthrodesis, extra-articular, for subtal arthritides, *93.
Surgery
antisepsis, history of, *4; editorial, 1.
incisions and their closure, 590.
Surgical appliances. See Orthopaedic appliances.
Surgical implants: pitfalls in major prosthetic replacement of bone, 387.
Surgical instruments and accessories
scissors operation frame, *327.
suture, multiple barbed, experimental, for long flexible tendons of palm and fingers, *440.
Syme's amputation, 189.
by Joseph Lister after 66 years, *144.
result after 44 years, *142.
Synostosis: calcaneo-navicular bar, excision of, for painful spasmodic flat foot, *281.
Synovectomy
for osteoarthritis of knee, 211.
for rheumatoid arthritis, 197, 200.
Synovial chondromatosis, *530.
Synovial cysts of calf in rheumatoid knee, 200.
Syphilis, congenital, 586.

T

Talipes. See Club foot.
Talus, vertical
paralytic, 742.
Tarsal tunnel syndrome, *87.
Tarsus
arthrodesis, pantalar, for flail foot, 390.
synostosis: calcaneo-navicular bar, excision of, for painful spasmodic flat foot, *281.
See also names of tarsal bones and joints.
Teeth
caries enamel, electron microscopy of, 193.
matrix components of mineralised tissues (symposium), 379.
Tendo calcaneus
congenitally short, *695.
hemitransplantation of, for paralytic equinus deformity, 741.
Tendon(s)
transfer for paralytic deformities in lower limb, *741.
See also names of tendons; and under regional headings.

Tendon(s)
transfer for paralytic deformities in lower limb, *741.
See also names of tendons; and under regional headings.

* Indicates full article or appreciable part.

Tendon(s)
transfer for paralytic deformities in lower limb, *741.

* Indicates full article or appreciable part.
CONTRIBUTORS—NOVEMBER 1967


Dr P. J. ATKINSON, Ph.D., M.R.C.S., L.R.C.P., Biological Research Unit, University of Leeds, Dental School and Hospital, Blundell Street, Leeds 1, England.

DAVID BAILEY, Esq., M.Chr., F.R.C.S., Barnet General Hospital, Barnet, Hertfordshire, England.

Professor ROLAND BARNES, M.B., F.R.C.S., Eng., Ed., Glasgow, Department of Orthopaedic Surgery, Western Infirmary, Glasgow, W.1, Scotland.

Dr S. K. BHALLA, M.D., F.R.C.S.(C), The Hospital for Sick Children, 555 University Avenue, Toronto 2, Ontario, Canada.

N. J. BLOCKLEY, Esq., M.Ch.Orth., F.R.C.S., Royal Hospital for Sick Children, Glasgow, C.3, Scotland.


Miss D. M. COTHAY, M.B., B.S., F.R.C.S., Orthopaedic and Traumatic Unit, Royal Surrey Hospital, Guildford, Surrey, England.


DILLWYN EVANS, Esq., M.B., F.R.C.S.E., 25 Cathedral Road, Cardiff, Wales.


T. J. FAIRBANK, Esq., F.R.C.S., 10 Cranmer Road, Cambridge, England.


Dr M. K. GOEL, M.S., F.A.C.S., T.G. Hall, K.G. Medical College, Lucknow, India.


Dr ANWAR R. GUDBUSS, M.B., F.R.C.S.Eng., 20—Abdalla Street, Helwan, Cairo, United Arab Republic.

Dr JOHN E. HALL, M.D., F.R.C.S.(C), The Hospital for Sick Children, 555 University Avenue, Toronto 2, Ontario, Canada.


Dr O. S. INGWERSEN, M.D., Heiweg 198, Nijmegen, The Netherlands.

Professor J. JOSEPH, M.D., D.Sc., Department of Anatomy, Guy’s Hospital Medical School, London, S.E.1, England.

Dr S. B. KOHLI, F.R.C.S., Eng. and Edin., M.Ch.Orth., Department of Orthopaedics, Maulana Azad Medical College, New Delhi, 1, India.

Dr MARK G. LAZANSKY, M.D., Albert Einstein College of Medicine, 1825 Eastchester Road, Bronx, New York 10461, United States of America.


A. L. MACAFFEE, Esq., M.D., F.R.C.S., Royal Belfast Hospital for Sick Children, 180 Falls Road, Belfast, Northern Ireland.

Professor ALEXANDER MACDONALD, M.A., M.D., Department of Bacteriology, University of Aberdeen, Scotland.


Dr IVAN MATEV, M.D., Institute of Reconstructive Surgery, Prosthetics and Rehabilitation, 13 Urvich Street, Sofia-12, Bulgaria.


I. F. K. MUIR, Esq., M.S., F.R.C.S., Mount Vernon Centre for Plastic Surgery, Mount Vernon Hospital, Northwood, Middlesex, England.

Professor ROBERT ROAF, M.Ch.Orth., F.R.C.S., Department of Orthopaedic Surgery, The University of Liverpool, Liverpool 3, England.

Dr R. B. SALTER, M.D., F.R.C.S.(C), The Hospital for Sick Children, 555 University Avenue, Toronto 2, Ontario, Canada.

Dr A. SCHAMAN, M.B., B.Ch.(Wits.), D.C.P.(Lond.), M.C.Path., South African Institute for Medical Research, P.O. Box 1038, Johannesburg, South Africa.

W. J. W. SHARRARD, Esq., M.D., Ch.M., F.R.C.S., 140 Manchester Road, Sheffield 10, England.


Dr GRAHAM S. SMITH, M.B., Ch.B., Cape Town, F.R.C.S.Ed., Department of Orthopaedic Surgery, Baragwanath Hospital, Johannesburg, South Africa.

WILLIAM A. SOUTER, Esq., F.R.C.S., 85 Ourgang Road, Fairmilehead, Edinburgh, Scotland.


Dr RICHARD WATSON, M.B., B.S., Royal Bristol Infirmary, Bristol 2, England.

Dr J. A. WETHERELL, Ph.D., Biological Research Unit, University of Leeds, Dental School and Hospital, Blundell Street, Leeds 1, England.

H. L.-C. WOOD, Esq., M.S., F.R.C.S., King’s College Hospital, Denmark Hill, London, S.E.5, England.
Strength in hand

with London Hospital Sutures

Strong, sure, supple — packaged for speed and safety.
Available in a full range of catgut and non-absorbable materials with or without eyeless needles

London Hospital (Ligature Department) Ltd • Farringdon Avenue • Harold Hill • Romford • Essex
Telephone Ingbourne 41101-4 • Telegrams "Ultratan Romford"
A SPENCER SUPPORT for Intervertebral Disc

In both conservative and surgical treatment of intervertebral disc, application of a back support is usually indicated. We invite the surgeon's investigation of Spencer as an adjunct to treatment. Each Spencer is "individually designed, cut and made for each patient—after a description of the patient's body and posture has been recorded and detailed measurements taken. Thus, individual support requirements are accurately met. The Spencer Spinal Supports shown were individually designed for both man and woman patients, incorporating Rigid Spinal Brace and outside pelvic binder for added pelvic stability.

For further information write to:

SPENCER (BANBURY) LTD.
Consulting Manufacturers of Surgical and Orthopaedic Supports

SPENCER HOUSE BANBURY OXFORDSHIRE

Telephone 2265

Branch Offices:

LONDON: 2 South Audley Street, W1
MANCHESTER: 21 King Street, 2
LIVERPOOL: 59 Church Street, 1
LEEDS: Victoria Buildings, Park Cross Street 1 (Opposite Town Hall Steps)
BRISTOL: 18 Whiteladies Road (Opposite Broadcasting House), Clifton, 8
GLASGOW: 86 St Vincent Street, C2
EDINBURGH: 125a Princes Street, 2

Trained Spencer Retailer-Fitters resident throughout the Kingdom. Name and address of nearest Fitter supplied on request.

Copyright. APPLIANCES SUPPLIED UNDER THE NATIONAL HEALTH SERVICE.
Ring's total hip prosthesis

A two-part appliance made in Vinertia.® The femoral component has a fenestrated intramedullary stem, an elongated neck, and an offset head, 1½ in. diameter. The pelvic part is a cup with a 3 in. threaded stem. The outer surface of the cup is conical, its inner surface is accurately matched to the femoral head.

Can be supplied with non-fenestrated stem if required.

SPECIAL FEATURES

1. It does not involve the use of cement.

2. The acetabular component is held in position by a long screw thread which lies along the line of weight transmission through the pelvis. Because of this, and the way in which the cup is countersunk in the acetabulum, there is no risk of loosening or breakage.

3. The correct positioning of the cup and stem, and the anatomical centre of the new joint, is obtained by a guide.

4. The offset head, and elongated neck of the femoral component, permits a full range of joint movement.
Eliminates trailing cables and minimises equipment on theatre floor. Services — brought from control panels in theatre wall, through hidden ducts, to operating table — include diathermy, cautery, suction, anaesthetic gases, compressed air and high and low voltage electricity. Distribution is from table base or ceiling pendant.

Panels can also have X-ray viewing screens, monitoring equipment, and controls for lighting, cameras, air-conditioning, bell call — the Clearway System being individually planned for each theatre.

The Gallois Shadowless Lamp with its multi-source cupola can also be incorporated into the Clearway system. Features include: maximum coolness during prolonged operations — minimum maintenance — total reliability — fingertip control built-in spotlight — natural white light — provision for standard camera, television camera and satellite.

Either fixed or mobile distribution bases are available.

CHAS. F.
THACKRAY LIMITED
P.O. BOX 171
PARK STREET, LEEDS 1
Tel: 20085
Also at London and Glasgow
The joint is exposed through a curved posterior incision, dividing the gluteus maximus and the iliotibial band, and the short external rotators.
The capsule of the joint is incised and marginal osteophytes removed from the posterior, inferior and superior margins of the acetabulum.
The femoral head is dislocated and the femur divided along a line joining the middle of the femoral neck medially to the root of the greater trochanter laterally.
The femoral head is removed and the shaft of the femur rasped to receive the femoral component.
The upper and posterior margins of the acetabulum are cleared and the gluteus medius stripped from the bone until a finger can be inserted into the greater sciatic notch.
The hook of the director is fully engaged with the greater sciatic notch and the mushroom-shaped stem advances into the acetabulum until it is firmly engaged. The locking screw is tightened.

A 13 in. guide wire is passed along the stem of the director and inserted into the ilium to a depth of 3 or 4 in.
The director is dismantled and withdrawn.
The guide wire is cut short by 4 in. to permit the drill to engage fully.
The track is prepared to a depth of 3 in. by the ½ in. drill. (The ½ in. drill is used when the bone is soft.) During this stage the left index finger remains in the greater sciatic notch to check that the drill is following the correct line.
The guide wire is withdrawn.
The acetabulum is countersunk with the 5 bladed reamer.
The cup is inserted and screwed firmly home, its position during insertion again being checked by the finger in the greater sciatic notch.
The final component is introduced and pushed home and the joint reduced.

For details and fully illustrated brochure
Down Bros. and Mayer & Phelps Limited
Church Path, Mitcham, Surrey, England

In Canada:
410 Dundas Street West, Toronto 2B
In U.S.A.:
Downs Surgical Inc.,
2730 Pine Avenue, Niagara Falls, N.Y.
No. 6660
Vitallium Walldius
Knee Prosthesis

London Splint Company Limited
50-52 New Cavendish Street, London, W.1
Phone: 01-935-0318 (4 lines)
McKEE-FARRAR ARTICULATED HIP PROSTHESSES

Catalogue No. 352


London Splint Company Limited
50-52 New Cavendish Street, London, W.1
Phone: 01-935-0318 (4 lines)
Designed for the Specialty Surgeon

The Stryker Roto Osteotome

The 20° Roto Osteotome

The New Stryker MICRO-PNEUMATIC SURGICAL INSTRUMENTS

STRYKER CORPORATION
Kalamazoo, Michigan 49001
Just one of the reasons why Ceporin has an important place in the orthopaedic unit
Ceporin (cephaloridine)

Bactericidal
Ceporin rapidly kills susceptible organisms at or near the minimum inhibitory concentration.

Broad spectrum
Ceporin is highly active against most gram-positive organisms – including penicillin-resistant staphylococci – and many gram-negative organisms.

Safe
Ceporin has very low toxicity and can usually be given safely to penicillin-hypersensitive patients. The injections are remarkably painless.
"Stryker Lubritape reduces shear over pressure points under a cast. Lubritape is available in 2 inch by 6 inch pads."

Stryker Corporation
Kalamazoo, Michigan 49001
THE OSBORNE-BALL OSTEOTOMY PLATE was designed from studies of the mechanical loading pattern of the upper femur to secure the maximum degree of fixation within the imposed anatomical and surgical limits of the osteotomy operation. The plate features a tapered blade which has a firm hold in the strongest bone available in the femoral neck and a gluteal post to control the tendency of the upper fragment to rotate into varus. The plate acts primarily as a rigid support for the two bone fragments protecting the uniting osteotomy against strain from walking or leg movements. Compression or "pre-loading" of the osteotomy surfaces is subsequently obtained by a sliding mechanism using the self-locking cam compressor. The fixation is designed to withstand forces equivalent to those of weight-bearing and laboratory tests of the plate in bone under comparable loading conditions have confirmed the success of the design.

PATENTS PENDING
Stainless Steel B.S.EN 58J

No traction or immobilisation has been used. Knee flexion movement over the side of the bed has been encouraged after twenty-four hours; standing and walking with sticks after a few days and discharge from hospital to home in two to three weeks have been allowed.

In U.S.A.: Downs Surgical Inc., 2730 Pine Avenue, Niagara Falls, N.Y.
The wedge blade is driven straight through outer side of the osteotomy interface towards the centre of the acetabulum using the introducer (provided in the kit of insertion instruments) and wedges firmly in the neck. Varying sizes of blade are not required for adult patients, as the shaped tapers are calculated to achieve a much tighter grip in the cancellous bone of the neck than any conventional V blade or trifin nail, wherever placed.

Ease of surgical introduction dominated the design of the drill jig for insertion of the gluteal post, an assembly exercise taken from engineering practice which is likely to have increasing application in technical Orthopaedic Surgery of the future.

The dual purpose tap key and box spanner which tighten the gluteal post are used also to fix and rotate the self locking cam compressor and apply an impact force of 50 lbs to the osteotomy surfaces.

Clinical trials are proceeding of prototype designs which adapt the unique mechanical features of the Osborne-Ball osteotomy plate for the treatment of trochanteric and subtrochanteric fractures to offer greater strength and reliability of fixation. The same kit of instruments will be used for insertion of these similar implants when they are available.
It has been said that when treating acute osteomyelitis in this era of antibiotic-resistant bacteria, the antibiotic given to the patient when first seen is usually chosen by ‘inspired’ guesswork.1

If an antibiotic were available to which all commonly encountered pathogens were sensitive then this guesswork would be eliminated. It would then be unnecessary to change to another antibiotic or to give a combination of antibiotics when sensitivity reports become available.2

The progression of the disease (osteomyelitis) from the acute to the chronic phase in 7 out of 59 cases reviewed in 1963 has been attributed to the initial use of the ‘wrong antibiotic’.3

In a recent clinical trial4 sixty-two patients were treated for acute osteomyelitis: 27 with Orbenin alone and 35 with bone-drilling in addition to Orbenin therapy.

Sensitivity tests showed that cloxacillin was the only antibiotic out of eight tested to which all isolated organisms were sensitive. Complete resolution was effected in 90% of cases. There was relative failure of treatment in 8% and absolute failure in 1.6%.

There were no untoward side-effects during five weeks of treatment.

References
3. Ibid., (1963), 2, 1561
4. Ibid., (1967), 2, 414
Additional information is available on request.

Dosage
Adults 500mg (2 capsules) given orally, four times daily. 250-500mg (1-2 vials) given by intra-muscular injection, four times daily.

Children Under 2 years – quarter adult dose. 2-10 years – half adult dose.

Contra-indications
Orbenin should not be given to patients with a penicillin allergy or administered by subconjunctival injection.

Side effects
As with other penicillins.

Orbenin (regd) (cloxacillin sodium BP) is a product of British research at Beecham Research Laboratories Brentford, England, originators of the new penicillins.
1. A vertical “T-strap” that keeps it from riding up too high.
2. Padding that's made of orthopaedic felt and covered with soft stockinette.
3. Buckles that are protected from the patient's skin.
4. Padding that extends all the way around the axilla.
5. One-piece construction that goes on quickly and easily without time-consuming modifications.
6. A firm strap that maintains immobilization.
7. The name Zimmer on the tag.

Zimmer - The People Who Really Care

*Ask your Zimmer distributor for the McLeod Clavicle Strap*
The use of the Zimmer Compression Set

After the fracture has been reduced, select proper 3251 bone plate and correct length bone screws (128). The plate should be four to five times as long as the diameter of the bone at the fracture site. Screws must be long enough so that the pilot point exits from the cortex opposite the plate. Periosteum is stripped in preparation for plate.

1 To attach one end of plate to bone, center plate over fracture. Drill holes in proximal fragment* using Hand-Held Drill Guide (A). After hole is drilled, self tapping screw is placed. (If surgeon prefers, separate tapping instrument is included in the compression set. However, Zimmer 128 bone screws are designed for maximum holding power and ease of placement without pre-tapping.)

2 Affix plate to proximal end with necessary screws. Place Locator Drill Guide (B) hook in elongated slot on distal end of plate. Drill \( \frac{3}{4} \) inch diameter anchor hole. A Trinkle Handle (C) is provided which can be snapped to locator drill guide for holding in place.

3 With Compression Clamp Capstan Handle (D) in free position, place Compression Clamp Foot (E) over anchor hole. Insert anchor screw. Pivot handles toward anchor screw and slip Compression Clamp Hook (F) into slot on distal end of plate. Lock capstan handle across compression clamp. Apply compression as desired by turning capstan knob clockwise. In rare instances, it may be necessary to gain additional compression with the 4" Pin Wrench inserted in the holes of the capstan knob. Caution: The Pin Wrench Can Provide Up To 600 Pounds Compression And Must Be Used With Extreme Care.

4 Place all remaining bone screws with full compression applied. Release compression and swing capstan handle to free position. Remove anchor screw and compression clamp.

*Proximal is used only for clarity in describing the procedure. Either bone end may be chosen, at the surgeon's discretion, for plate attachment.
When you mention the Brown Air-Dermatome® you're talking about graft-cutting control. Control that provides an even split-thickness graft. Air-powered control that's remarkably vibration free. Balanced control made possible by the Dermatome's smooth air-powered motor and lightweight air tubing. One knob can be precisely adjusted for thickness from 0 to 100 thousandths of an inch. Width too is controlled by a single, simple adjustment. And, to complement surgical dexterity, control is in the handpiece — no more awkward foot pedals.
That's talking!
How about talking with your Zimmer distributor?

Talk about surgical control...
The stresses are different. Should the metals be the same?

No one metal is perfect for every application. If an implant is to resist the leverage, torsion, tension and compression forces which are applied within the corrosive environment of the body, the metal should be selected consistent with the function of the appliance. Design, quality control and surgical application also play dominant roles in the successful performance of implants.

Many factors contribute to good orthopaedic metallurgy. Zimmer metallurgists and design engineers are constantly evaluating and developing the best possible implant for each surgical application.

Zimmer • The People Who Really Care
Have you done a laminectomy with the Zimmer Surgairtome®?

Here is articulate Air Surgery® with a six ounce, hand-controlled instrument. It is designed to "wipe away" bone where the close approximation of critical soft tissue calls for a delicate technique. If you have not yet tried the Surgairtome, have your girl call a Zimmer distributor. He'll make one available for you.

Zimmer • The People Who Really Care

© 1967 ZIMMER, WARSAW, INDIANA
This patient was scheduled for amputation when surgeons thought it worthwhile to delay the procedure for a final attempt to fight infection with an antibiotic drip and re-aspiration through Snyder Hemovac tubes. Continuous closed irrigation and suction was applied for several days after swelling subsided and fluid cultures were negative. The drip was stopped and these tubes were attached to an electric suction apparatus for 72 hours to dry the wound and spaces. All tubes were then removed. The patient's recovery was complete with the Snyder Hemovac for closed irrigation.

Zimmer • The People Who Really Care

Snyder Hemovac® in Orthopaedic Surgery

Osteomyelitis

Number one of a series "Cases for Snyder Hemovac."
Evaluate these products

ZIMFOAM IMMobilization Dressing

These splints are made of thick, porous foam and provide firm immobilization while cushioning the fracture. One-piece construction with adjustable ties and imbedded plastic stays makes splinting fast and simple. The porous foam is soft and provides excellent support. It is radiolucent and will not occlude hairline fractures on X-rays.

New Zimmer Walking Heels Have Built-In Arch

Zimmer arch-fit walking heels do not require plaster build up. The heel base gives walking action on both planes and is deeply ribbed to prevent slipping. One-piece Flexan® heel won't scratch or mar floors. This resilient heel fits either foot and is available in medium and small sizes.

Zimmer • The People Who Really Care

Lincocin penetrates / Lincocin works

efficacy through depth of penetration in tonsillitis / otitis media
and the difficult-to-reach infections - sinusitis / mastoiditis

available as:

Lincocin Syrup 250 Each 5 ml contains 250 mg, lincomycin (as lincomycin hydrochloride monohydrate) in bottles of 60 ml. (This replaces the 125 mg / 5 ml strength).

Lincocin Capsules Each capsule contains 500 mg, lincomycin (as lincomycin hydrochloride monohydrate) in bottles of 12 and 100.

Lincocin Sterile Solution Ampoules (2 ml) 600 mg. Each 2 ml ampoule contains 600 mg, lincomycin (as lincomycin hydrochloride monohydrate).
the Kiel heterogeneous bone transplant promotes new bone formation as effectively as autogenous bone¹


Armour Pharmaceutical Company Limited
Eastbourne England
Distributors in the United Kingdom for B. Braun, Melsungen
The A & H Orthopaedic Attachment increases the versatility of the standard range of A & H Operation Tables and provides the surgeon with excellent patient positioning for lower extremity and pelvic girdle procedures.

The Attachment has been specially designed for use with mobile image intensifiers and portable X-ray machines. Antero-posterior X-ray photographs may be taken without obstruction of the field by metal parts.

The new A&H Instrument Catalogue Section 3, featuring Orthopaedic Instruments and Equipment, is now available for hospital distribution.

For full details, please write to:

ALLEN & HANBURYS (SURGICAL ENGINEERING) LTD
BETHNAL GREEN LONDON E2 ENGLAND
Distalgesic™ erases pain

Distalgesic has gained wide acceptance in general practice as an analgesic with a number of valuable properties and is effective in treating all but the most severe pain, without the risk of gastric bleeding, constipation or addiction.

Additional properties commend its use as a general duty analgesic in hospital practice. Distalgesic does not depress cough reflex or the respiratory centre; it does not cause smooth muscle spasm nor does it cloud consciousness.

Distalgesic tablets – specially shaped for ease of swallowing and identification – each contain 32-5 mg. dextropropoxyphene hydrochloride, a non DDA drug structurally related to methadone, with 325 mg. paracetamol – generally regarded as the safest of the antipyretic analgesics.


Further information available on request:
Distal Products Limited Liverpool 24
By harnessing the power of air and bringing it to your fingertips, the HALL® Air Drill permits you to apply bur to bone with scarcely more effort than it takes to diagram the procedure. The one instrument for practically every osteosurgical procedure. Cutting is faster, less traumatic, safer, and soft tissue is gently pushed aside on contact. A handful of precision to replace a “trunkful of tools.”

©Howmet Corporation, 1967
FUCIDIN exhibits remarkable ability to reach the nidus of staphylococcal infection despite poverty of blood supply or presence of pus and sequestra. The early success of FUCIDIN in osteomyelitis after failure of other apparently suitable antibiotics has been amply demonstrated in over five years of clinical use. FUCIDIN is rapidly and easily absorbed giving serum and tissue levels which are bactericidal against almost all pathogenic staphylococcal strains. Resistance has not proved a clinical problem, and there is no cross-resistance with other available antibiotics. For prompt and sustained control in acute osteomyelitis FUCIDIN has proved a reliable and economical choice.

For full literature and prescribing information please write to the Medical Information Dept.

Capsules, 250 mg. sodium fusidate B.P., in bottles of 36 and 250; also as Paediatric Suspension equivalent to 35 mg. sodium fusidate per ml., in bottles of 60 ml.
FOR THE SURGEON

A new sharp needle swaged to each suture, in packs specially designed to open more easily, saving time and space. There is an ETHICON® needle suture combination for virtually every operative procedure . . . and they are ready for immediate use.

The majority of the MERSUTURES Eyeless Needled Suture range are available in foil overwrap presentation, as well as in the traditional Sterile Foil pack in jars.

ETHICON, LTD.

Bankhead Avenue Sighthill Edinburgh 11

* TRADEMARK
Only Titanium meets the searching requirements of successful implantation on all counts.
For many years orthopaedic surgeons have accepted, through lack of superior alternatives, the relative shortcomings of some metals used for surgical implantation, whether it be on grounds of mechanical strength, resistance to corrosion or toleration by tissue and body fluids.

To-day surgeons have in Titanium a metallic element which has proved itself unrivalled for successful implantation on all grounds.

CONSIDER THESE OUTSTANDING ADVANTAGES

1. Completely inert—the most corrosion resistant element known.
2. Well tolerated by tissue and body fluids.
3. Known composition. Titanium is a 99% pure element and has less trace elements than any alloy no matter how carefully prepared.
4. Maximum strength—Minimum weight. The superior mechanical strength of Titanium is evidenced by the 'yield point'—the point at which an implant takes a permanent set when subjected to load—when compared with cast Cobalt Chromium Alloy or annealed stainless steel, is well documented.

Typical figures are:*

<table>
<thead>
<tr>
<th>TENSILE STRENGTH</th>
<th>FATIGUE LIMIT</th>
<th>YIELD POINT</th>
<th>ELONGATION</th>
<th>SPECIFIC GRAVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>TONS PER SQUARE INCH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TITANIUM</td>
<td>CAST COBALT CHROMIUM</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*

For fuller information about Titanium Implants, send for the illustrated brochure to:

Zimmer
ORTHOPOAEDIC LTD.
BRIDGEND, GLAM., G.B. Tel: 0042 3908. Cables: ZIMORPEDIC BRIDGEND

London Showrooms: Zimmer House, 176/178 & 134 Brompton Road, SW3. Tel: 01-584 6416
Birmingham Showrooms: Theatre Approach, Smallbrook Ringway, Birmingham 5. Tel: 021-643 1324
Associate Company: Orthopedic Equipment Company Inc., Bourbon, Indiana, USA.
“Miss Walton, be sure Mr. Roberts in Room 605 doesn’t develop bed sores . . .

. . . the best way to prevent bed sores is to use a Stryker FLOATATION PAD”

STRYKER CORPORATION
Kalamazoo, Michigan
A New way of treating flat feet in children . . .

‘Foot Rest’ Corrective Heel-Seats

The corrective heel-seats are specially made to be worn in any type of footwear that has a closed heel, e.g. boots, shoes, football boots, sandals and leather slippers. The only provision is that the counters of the heel should be strong enough to maintain the heel-seat in position. The weight of the child on the flat base will maintain the lateral walls in the corrective position. Made in rigid Polypropylene plastic material it is sufficiently strong to maintain shape and yet resilient enough to allow for comfort.


Available in a wide range of standard children’s sizes from 5-13 inclusive.

Further information from

MYRON MEDICAL PRODUCTS LTD.
76 Queen Street, Maidenhead, Berks., England. Telephone: Maidenhead 30373.

XXXV
This Austin Moore Self-Locking Hip Prosthesis is cast of VITALLIUM®, the original cobalt-chromium alloy developed to meet the most demanding of tests...the est of permanent implantation! Entirely compatible with human tissue, inherently corrosion-resistant, VITALLIUM® implants are designed to provide maximum strength with minimum weight.

Responding to the needs of orthopedic surgery, HOWMET blends superior metallurgical skills with the design-ingenuey of leading surgeons. The result is a variety of standard orthopedic appliances for optimum results in a wide range of procedures. VITALLIUM implants...an enduring reflection of skill and judgment.

VITALLIUM® is the registered trademark of Howmet Corporation

& Howmet Corporation, 1967

HOWMET CORPORATION
MEDICAL DIVISION
224 EAST 39TH STREET
NEW YORK, NEW YORK 10016

IN CANADA, HOWMET OF CANADA, LTD., GUELPH, ONTARIO
The bloodless revolution in hypovolaemic shock therapy

It would appear on first sight that shock, following blood loss, is best remedied by equivalent blood replacement. Of course, we now know that this concept is by no means true. Blood transfusions always carry risks—disease transmission, infection, incompatibility. The use of blood in nearly every minor haemorrhage is unnecessary and wasteful. Even with gross blood loss and shock, the need for immediate, adequate volume replacement cannot await blood grouping and crossmatching. 'The routine use of blood during anaesthetic and surgical procedures cannot be justified.'

But how satisfactory are the alternatives, plasma, crystalloids or colloids?

Plasma requires to be mixed and is even more liable to transmit disease especially hepatitis ('The quantity of infected plasma that can transmit hepatitis may be as little as one millionth of a millilitre'). Its volume effect is often lacking. Crystalloids have virtually no value as volume expanders. A macromolecular colloid for volume replacement, dextran, is preferable—if it is of the correct molecular weight; neither so small that it is below the renal threshold and excreted too swiftly, nor so large that it may cause unwanted side effects, e.g. bleeding complications, interference with blood typing and crossmatching.

MACRODEX is the macromolecular colloid of choice. It has the correct molecular weight. Its specific and meticulously checked average molecular weight of 70,000 corresponds closely to that of albumin, the protein responsible for 80% of the colloid osmotic pressure of the human plasma. MACRODEX allows immediate therapy by providing adequate and lasting volume replacement.

'The infusion of macromolecular solutions does not involve as many hazards as blood transfusion. They should be selected for volume replacement when there is no clear indication that the oxygen transport of the blood is being compromised by lack of red cells.' Naturally, where there is a need for an increase in red cells, the patient will be given a blood transfusion. However, MACRODEX will support the circulation and maintain the blood volume until the blood arrives. In most cases of hypovolaemic shock, the volume deficit is not so severe. MACRODEX provides the swiftest and often the only therapy necessary—sparing precious blood for patients whose lives may be at stake for the want of it and also as the initial replacement reducing the hazards and costs of blood transfusion to the lowest level possible.
JOURNAL OF BONE AND JOINT SURGERY

BACK ISSUES OF THE BRITISH VOLUMES ARE AVAILABLE
TO COMPLETE YOUR SERIES

For complete reference, and to make your library more valuable, you may wish to buy previous issues of the Journal of Bone and Joint Surgery.
Copies are available of all issues of the British Volume, 1948 to 1966 (except February 1960).

Price £1 or $3.00 per single issue
also
Quinquennial Index 1953–1957. American and British Volumes
(Paper cover only)
Quinquennial Index 1958–1962. American and British Volumes
Paper cover £1 0 0 or $3.00 Hard cover £1 12 6 or $5.00

Order from
THE JOURNAL OF BONE AND JOINT SURGERY
82 Portland Place, London W.1, England

LATEST LIVINGSTONE BOOKS

OUTLINE OF ORTHOPAEDICS
J. CRAWFORD ADAMS
Sixth Edition 476 pages 361 illustrations 40s.

MUSCLES ALIVE
Their Functions Revealed by Electromyography
J. V. BASMAJIAN
Second Edition 300 pages 150 illustrations £6 2s.

THE BLOOD SUPPLY OF THE LOWER LIMB
BONES IN MAN
HENRY V. CROCK
Second Edition 600 pages 429 illustrations 70s.

SURGERY IN INFANCY AND CHILDHOOD
WALLACE M. DENNISON
Second Edition 600 pages 429 illustrations 70s.

A PRACTICAL GUIDE TO THE CARE OF THE INJURED
PETER S. LONDON, M.B.E.
790 pages 1,194 illustrations £7 10s.

ANTHOLOGY OF ORTHOPAEDICS
MERCER RANG
256 pages 91 illustrations 42s.

SCOLIOSIS
R. ROAF
158 pages 122 illustrations 37s. 6d.

SCOLIOSIS
J. I. P. JAMES
258 pages 219 illustrations 55s.

STRAIGHT TO THE CORE
ALFRED T. FRIPP and NORMAN E. SHAW
136 pages 109 illustrations 35s.

E. & S. LIVINGSTONE LTD., 15-16-17 TEVIOT PLACE, EDINBURGH
The Original 'Home' of the Thomas Splint

Critchley & Veale Ltd.
Orthopaedic Mechanicians
Great George Square
Liverpool, 1

Grams
"ORTHOMEC"
Phone
ROYAL 4514

Swann-Morton
SURGICAL BLADES

In STAINLESS and CARBON steel...STERILE packed in quick peel foil packets...colour coded dispenser boxes...Range of 12 standard shapes with 5 sizes of handles STERILE DISPOSABLE "ONE PIECE" STITCH CUTTERS. STERILE DISPOSABLE scalpels (plastic handle with stainless steel blade) full range of shapes...AUTOCLAVABLE POLYPROPYLENE HANDLES, standard fitment. No. 3 and 4 only...low in cost...highly efficient...PROMPT SERVICE. Each blade sterilized by gamma radiation in our own plant.

Write for our fully descriptive leaflet.

Swann-Morton (Sales) LTD • SHEFFIELD 6 • ENGLAND

ADVERTISERS—NOVEMBER 1967

<table>
<thead>
<tr>
<th>Company</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allen &amp; Hanburys (Surgical Engineering) Ltd.</td>
<td>xvi</td>
</tr>
<tr>
<td>Armour Pharmaceutical Company Ltd.</td>
<td>xvi</td>
</tr>
<tr>
<td>Beecham Research Laboratories</td>
<td>xxiv</td>
</tr>
<tr>
<td>Critchley &amp; Veale Ltd.</td>
<td>xxxix</td>
</tr>
<tr>
<td>Dista Products Ltd.</td>
<td>xxvii</td>
</tr>
<tr>
<td>Down Bros. and Mayer &amp; Phelps Ltd.</td>
<td>xii-xxiii</td>
</tr>
<tr>
<td>Ethicon Ltd.</td>
<td>xxi</td>
</tr>
<tr>
<td>Glaxo Laboratories Ltd.</td>
<td>xvii-xviii, xix, xx</td>
</tr>
<tr>
<td>Howmet Corporation</td>
<td>xxix, xxxvi</td>
</tr>
<tr>
<td>Leo Laboratories Ltd.</td>
<td>xx</td>
</tr>
<tr>
<td>E. &amp; S. Livingstone Ltd.</td>
<td>xxxviii</td>
</tr>
<tr>
<td>London Hospital (Ligature Dept.) Ltd.</td>
<td>ix</td>
</tr>
<tr>
<td>London Splint Company Ltd.</td>
<td>xiv, xv</td>
</tr>
<tr>
<td>Myron Medical Products Ltd.</td>
<td>xxxv</td>
</tr>
<tr>
<td>Orthopedic Equipment Company Inc.</td>
<td>cover p. 2, 4</td>
</tr>
<tr>
<td>Pharmacia (Great Britain) Ltd.</td>
<td>xxxvii</td>
</tr>
<tr>
<td>Spencer (Banbury) Ltd.</td>
<td>x</td>
</tr>
<tr>
<td>Stryker Corporation</td>
<td>xvi, xxi, xxxiv</td>
</tr>
<tr>
<td>Swann-Morton (Sales) Ltd.</td>
<td>xxxix</td>
</tr>
<tr>
<td>Chas. F. Thackray Ltd.</td>
<td>xi</td>
</tr>
<tr>
<td>Upjohn Ltd.</td>
<td>xiv</td>
</tr>
<tr>
<td>Zimmer Orthopaedic Ltd.</td>
<td>xxxii, xxxiii, cover p. 3</td>
</tr>
<tr>
<td>Zimmer, U.S.A.</td>
<td>8-page insert</td>
</tr>
</tbody>
</table>

xxxix
SUGGESTIONS TO CONTRIBUTORS

The Journal of Bone and Joint Surgery is the official publication of orthopaedic surgeons of the Commonwealth of British Nations and the United States of America, and in this respect it represents the science and practice of orthopaedic surgery in the English-speaking world; but important contributions are also published from every country in the world and original articles are welcomed from any contributor wherever he may live. Facilities for translation are made available.

We also report the Proceedings of Colleges, Universities, Societies and Associations in every part of the world, thus contributing to international cooperation in the advance of orthopaedic surgery.

Manuscripts offered for publication in the British volume should be addressed to the Editor, Journal of Bone and Joint Surgery, 82 Portland Place, London, W.1. The Editorial Secretary of the Board is at the service of authors, and will assist in every way she can.

Manuscripts should be typewritten with double spacing and wide margins. The author should keep a carbon copy. The Editorial Board reserves the right to make literary corrections.

Radiographs should be submitted as reduced or contact prints. The original x-ray films from which prints have been made should always be sent in order that blocks can be made of the very best quality. Films will be returned as soon as possible.

When colour transparencies are intended for reproduction the originals should preferably be of reasonably large size (2½ x 3½ inches or greater). Unless the quality of the transparencies is exceptionally good and unless the subject fills the entire frame it is seldom possible to obtain satisfactory reproductions from 35-millimetre transparencies. Reproduction in colour is expensive and will be considered only when it is important to illustrate a particular feature that could not be made clear by other techniques.

Photographs, drawings and radiographic prints should be clearly marked on the back with the title of the paper and the author's name. Captions or legends of illustrations should be typed on a separate sheet at the end of the manuscript of the article itself. Captions should not be written only on the back of the prints. Each Figure should be referred to in the text.

References to medical literature should be recorded in the text with the name of the author and the year of publication in brackets. At the end of the article the list of references should be arranged alphabetically, each item including name of author, year of publication, title of article, Journal, number of volume, and page reference, thus:


The names of Journals should be given in full. The "World List" of abbreviations is not used. Every bibliography and list of references will be checked by the Editor, but much delay will be avoided if authors would be good enough to pay careful attention to accuracy.
EDITORIAL COMMITTEES

British Orthopaedic Association
ROLAND BARNES, President
Sir REGINALD WATSON-JONES, Editor
E. W. SOMERVILLE, Editorial Secretary
DAVID L. EVANS, Secretary
at the Royal College of Surgeons,
Lincoln’s Inn Fields, London, W.C.2

Canadian Orthopaedic Association
F. R. TUCKER, President
D. LANDELLS, Vice-President
C. A. LAURIN, Secretary-Treasurer
F. P. DEWAR, Editorial Secretary
170 St George Street, Toronto 5, Ontario

Australian Orthopaedic Association
J. M. J. JENS, President
JOHN S. ROARTY, Editorial Secretary
CLIFTON M. MAXWELL, Secretary
147 Macquarie Street, Sydney, New South Wales

New Zealand Orthopaedic Association
ALAN J. ALLDRED, President
B. M. HAY, Editorial Secretary
A. R. COCKERELL, Secretary
46 Wicksteed Street, Wanganui

The American Board of Trustees
H. HERMAN YOUNG, Chairman
JOHN ROYAL MOORE, Vice-Chairman
ROBERT LEE PATTERSON, Jr., Treasurer
MARK B. COVENTRY, Secretary
THORNTON BROWN, Editor
LENOX D. BAKER
HAROLD B. BOYD

The American Orthopaedic Association
The American Academy of Orthopaedic Surgeons
29 East Madison Street, Chicago, Illinois 60602

American Society for Surgery of the Hand
DONALD R. PRATT, President
VINCENT E. SILER, President-Elect
J. LEONARD GOLDNER, Vice-President
RAYMOND M. CURTIS, Secretary-Treasurer
2919 St Paul Street, Baltimore, Maryland 21218

American Society for Surgery of the Hand

Western Orthopedic Association
IVAR J. LARSEN, President
A. B. SIRBU, President-Elect
EDWIN G. BOVILL, JR., Secretary
San Francisco General Hospital, California 94110

South African Orthopaedic Association
G. F. DOMMISSE, President
G. DALL, Treasurer
J. S. DE WET, Secretary
Orthopaedic Hospital, P.O. Box 437, Pretoria

Published in the United Kingdom for
THE BRITISH EDITORIAL SOCIETY OF BONE AND JOINT SURGERY by
E. & S. LIVINGSTONE LTD., 15–17 TEVIOT PLACE, EDINBURGH
British Editorial Offices, 82 Portland Place, London, England
British Editorial Office Telephone Number 01-636 9163

Published in the United States of America by
THE JOURNAL OF BONE AND JOINT SURGERY INCORPORATED
American Editorial Offices, 10 Shattuck Street, Boston, Massachusetts, U.S.A.
## CONTENTS

**British Volume, 49-B, 1967**

### Editorials and Annotations

<table>
<thead>
<tr>
<th>Topic</th>
<th>Author(s)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Debt of Orthopaedic Surgery to Joseph Lister</td>
<td>Reginald Watson-Jones, London</td>
<td>1</td>
</tr>
<tr>
<td>Chemonucleolysis</td>
<td>Valentine Logue, London</td>
<td>401</td>
</tr>
<tr>
<td>Vertebral Tuberculosis and Paraplegia</td>
<td>Norman Capener, Exeter</td>
<td>605</td>
</tr>
</tbody>
</table>

### Clinical Studies

<table>
<thead>
<tr>
<th>Topic</th>
<th>Author(s)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complicated Crushing Injuries of the Pelvis</td>
<td>Colin Froman, Oxford, and Archie Stein, Johannesburg</td>
<td>24</td>
</tr>
<tr>
<td>Occipito-cervical Fusion</td>
<td>D. L. Hamblen, London</td>
<td>33</td>
</tr>
<tr>
<td>Lower Cervical Rheumatoid Subluxation with Tetraplegia</td>
<td>J. S. Hopkins, Mansfield</td>
<td>46</td>
</tr>
<tr>
<td>Smooth Muscle Tumours of the Limbs</td>
<td>J. H. Bulmer, Wolverhampton</td>
<td>52</td>
</tr>
<tr>
<td>A New Operation for Congenital Absence of the Fibula</td>
<td>Jan Serafin, Warsaw</td>
<td>59</td>
</tr>
<tr>
<td>Madelung's Deformity</td>
<td>Adrian Henry, London, and Marigold J. Thorburn, Kingston, Jamaica</td>
<td>66</td>
</tr>
<tr>
<td>Surgical Treatment of Pulmonary Metastases from Primary Tumours of Bone</td>
<td>Rodney Sweetnam and Keith Ross, London</td>
<td>74</td>
</tr>
<tr>
<td>Tarsal Tunnel Syndrome</td>
<td>S. J. S. Lam, London</td>
<td>87</td>
</tr>
<tr>
<td>Arthrodesis of the Subtalar Joint</td>
<td>F. Brian Thomas, Hereford</td>
<td>93</td>
</tr>
<tr>
<td>Cone Arthrodesis of the First Metatarso-phalangeal Joint</td>
<td>J. N. Wilson, London</td>
<td>98</td>
</tr>
<tr>
<td>Perthes' Disease</td>
<td>A. H. C. Ratliff, Bristol</td>
<td>102</td>
</tr>
<tr>
<td>Osteochondritis Dissecans Following Legg-Calvé-Perthes' Disease</td>
<td>A. H. C. Ratliff, Bristol</td>
<td>108</td>
</tr>
<tr>
<td>Genu Recurvatum Congenitum</td>
<td>Michael Laurence, London</td>
<td>121</td>
</tr>
<tr>
<td>Transposition of Latissimus Dorsi for Paralysis of Triceps Brachii</td>
<td>G. T. du Toit, Pretoria, and S. J. Levy, Johannesburg</td>
<td>135</td>
</tr>
<tr>
<td>A Haemangioma Involving Tendons</td>
<td>G. F. Waddell, Glasgow</td>
<td>138</td>
</tr>
<tr>
<td>Syme's Amputation: Result after Forty-four Years</td>
<td>A. H. C. Ratliff, Bristol</td>
<td>142</td>
</tr>
<tr>
<td>Syme's Amputation by Joseph Lister after Sixty-six Years</td>
<td>R. C. F. Catterall, London</td>
<td>144</td>
</tr>
<tr>
<td>Traumatic Inferior Dislocation of the Hip (Luxatio Erecta) in a Child</td>
<td>M. Sankarankutty, Swansea</td>
<td>145</td>
</tr>
<tr>
<td>Intra-articular Surgery for Degenerative Arthritis of the Knee</td>
<td>J. N. Insall, New York</td>
<td>211</td>
</tr>
<tr>
<td>Unilateral Facet Interlocking in the Lower Cervical Spine</td>
<td>R. Braakman, Rotterdam, and P. J. Vinken, Amsterdam</td>
<td>249</td>
</tr>
<tr>
<td>Results of Treatment of 100 Congenitally Dislocated Hips</td>
<td>E. W. Somerville, Oxford</td>
<td>258</td>
</tr>
<tr>
<td>Ischaemia Complicating Closed Tibial and Fibular Shaft Fractures</td>
<td>Robert Owen, Oswestry, and B. Tsimboukis, Athens</td>
<td>268</td>
</tr>
<tr>
<td>Congenital Kyphosis in Myelomeningocele</td>
<td>Stanley Hoppenfeld, New York</td>
<td>276</td>
</tr>
<tr>
<td>Excision of Calcaneo-navicular Bar for Painful Spasmodic Flat Foot</td>
<td>G. P. Mitchell, Edinburgh, and J. M. C. Gibson, Aberdeen</td>
<td>281</td>
</tr>
</tbody>
</table>

|
## VOLUME CONTENTS

| Title                                                                 | Author                                                                 | Page |
|----------------------------------------------------------------------|                                                                      |      |
| Treatment of Pott’s Paraplegia by Operation                           | M. K. Goel, Lucknow                                                   | 674  |
| Spinal Tuberculosis in Nigerian Children                              | J. A. S. Dickson, London                                              | 682  |
| Congenital Short Tendo Calcaneus                                      | J. E. Hall, R. B. Salter and S. K. Bhalla, Toronto                   | 695  |
| Tumoral Calcinosis                                                    | Graham G. Smit and A. Schmaman, Johannesburg                         | 698  |
| Congenital Indifference to Pain                                       | O. S. Ingwersen, Nijmegen                                            | 704  |
| The Boutonnière Deformity                                            | W. A. Souter, Seattle                                                | 710  |
| Wringer Injuries of the Hand                                          | Ivan Matev, Sofia                                                    | 722  |
| Paralytic Deformity in the Lower Limb                                 | W. J. W. Sharrard, Sheffield                                         | 731  |
| Iliacus Haematoma                                                     | John Goodfellow, C. B. d'A. Fearn and J. M. Matthews, Oxford         | 748  |
| Increased Epiphysial Density in Bone Sarcoma                          | H. L.-C. Wood, London                                                | 757  |
| Observations on the Fate of Fibular Transplants for Congenital Absence of the Radius | N. J. Blockey, Glasgow                                              | 762  |
| Injury to the Lower Medial Epiphysial of the Humerus before Development of the Ossific Centre | D. M. Cothy, Guildford                                           | 766  |
| Infantile Supracondylar Fracture                                      | A. L. Macafee, Belfast                                               | 768  |
| Traumatic Arteriovenous Fistula of the Posterior Tibial Vessels       | T. Arwyn Evans, K. H. Stone and David Bailey, London                | 771  |

### Pathology and Basic Sciences

| Title                                                                 | Author                                                                 | Page |
|----------------------------------------------------------------------|                                                                      |      |
| Bone Formation in Paget’s Disease                                     | W. R. Lee, Glasgow                                                   | 146  |
| An Experimental Comparison of Living and Dead Bone in Rats           | Jack Stevens and Robert D. Ray, Chicago                              | 154  |
| Nail-patella Syndrome with Iliac Horns and Hereditary Nephropathy   | D. Darlington and C. F. Hawkins, Birmingham                          | 164  |
| The Pattern of Ageing of the Articular Cartilage of the Elbow Joint  | John W. Goodfellow and Peter G. Bullough, Oxford                    | 175  |
| An Engineering Appraisal of Powered Prostheses                       | T. H. Lambert, London                                                | 333  |
| Some Observations on the Effects of Blood and a Fibrinolytic Enzyme on Articular Cartilage in the Rabbit | E. Gucciardi, Como, and K. Little, Oxford                           | 342  |
| The Dual Nature of Epiphysial Cartilage                              | B. McKibbin and F. W. Holdsworth, Sheffield                         | 351  |
| The Anatomy of the Volar Part of the Capsules of the Finger Joints   | Palle Gad, Arhus                                                    | 362  |
| Blood Supply of the Human Patella                                     | Raffaele Scapinelli, Padua                                           | 563  |
| The Features of Fracture Healing in Cats After Immediate and Delayed Open Reduction | M. A. Emery and H. Murakami, Edmonton, Canada                      | 571  |
| Telemetering Electromyography of Muscles Used in Walking Up and Down Stairs | J. Joseph and Richard Watson, London                                | 774  |
| Variation in the Density of the Femoral Diaphysis with Age           | P. J. Atkinson and J. A. Weatherell, Leeds                           | 781  |

### Historical Review

| Title                                                                 | Author                                                                 | Page |
|----------------------------------------------------------------------|                                                                      |      |

### Honours to Surgeons

| Title                                                                 | Author                                                                 | Page |
|----------------------------------------------------------------------|                                                                      |      |
| Governor General of New Zealand—Appointment of Sir Arthur Espie Porritt, Bart. |                                                                      | 372  |
| University of Paris: Award of Doctorate Honoris Causa—Sir Harry Platt |                                                                      | 392  |
| University of Paris: Award of Doctorate Honoris Causa—Philip D. Wilson |                                                                      | 392  |
| Award of Commander Order of the British Empire—H. Jackson Burrows     |                                                                      | 791  |
VOLUME CONTENTS

In Memoriam

<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joseph Melvin Edelstein</td>
<td>182</td>
</tr>
<tr>
<td>Denis John Wolk Browne</td>
<td>368</td>
</tr>
<tr>
<td>Reginald Ernest Wherrett</td>
<td>370</td>
</tr>
<tr>
<td>Edgar Heilbronner</td>
<td>371</td>
</tr>
<tr>
<td>Philip Wiles</td>
<td>580</td>
</tr>
<tr>
<td>Hubert Chitty</td>
<td>581</td>
</tr>
<tr>
<td>Thomas Henry Bishop</td>
<td>582</td>
</tr>
<tr>
<td>Richard Henry Dawson</td>
<td>789</td>
</tr>
<tr>
<td>Tom Price</td>
<td>790</td>
</tr>
</tbody>
</table>

Proceedings and Reports of Universities, Colleges, Councils and Associations

<table>
<thead>
<tr>
<th>Association</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Orthopaedic Association—Annual Meeting 1966</td>
<td>184</td>
</tr>
<tr>
<td>British Orthopaedic Association—Spring Meeting 1967</td>
<td>583</td>
</tr>
<tr>
<td>South African Orthopaedic Association—Fifteenth Annual Congress 1966</td>
<td>198</td>
</tr>
<tr>
<td>South African Orthopaedic Association—Twenty-fifth Anniversary 1967</td>
<td>807</td>
</tr>
<tr>
<td>Australian Orthopaedic Association: Singapore Orthopaedic Surgeons—Joint Meeting 1966</td>
<td>384</td>
</tr>
<tr>
<td>India—Orthopaedic Section of the Association of Surgeons of India</td>
<td>799</td>
</tr>
<tr>
<td>New Zealand Orthopaedic Association—Annual Meeting 1966</td>
<td>805</td>
</tr>
<tr>
<td>Italian Society of Orthopaedics and Traumatology—Fifty-first Congress 1966</td>
<td>201</td>
</tr>
<tr>
<td>Italian Society of Orthopaedics and Traumatology and the German Orthopaedic Society—Combined Meeting 1966</td>
<td>393</td>
</tr>
<tr>
<td>Association of Surgeons of East Africa—Annual Meeting 1966</td>
<td>594</td>
</tr>
<tr>
<td>The Netherlands Orthopaedic Society—Meetings in 1966</td>
<td>798</td>
</tr>
<tr>
<td>Bone and Tooth Society</td>
<td>193, 379</td>
</tr>
<tr>
<td>Orthopaedic Research Society</td>
<td>379</td>
</tr>
<tr>
<td>South-East Metropolitan Orthopaedic Club Meeting</td>
<td>382</td>
</tr>
<tr>
<td>North-West Metropolitan Orthopaedic Club</td>
<td>383, 795</td>
</tr>
<tr>
<td>Irish Orthopaedic Club</td>
<td>384</td>
</tr>
<tr>
<td>South-West Orthopaedic Club</td>
<td>593</td>
</tr>
<tr>
<td>British Orthopaedic Travelling Club</td>
<td>791</td>
</tr>
<tr>
<td>Royal Air Force Orthopaedic Service: Annual Conference</td>
<td>197</td>
</tr>
<tr>
<td>Royal College of Surgeons of England—Programme of Lister Centenary Conference</td>
<td>201</td>
</tr>
<tr>
<td>Royal College of Surgeons of England—Watson-Jones Lecture</td>
<td>587</td>
</tr>
<tr>
<td>University of Liverpool—McMurray Memorial Lecture 1966</td>
<td>190</td>
</tr>
<tr>
<td>University of Liverpool—Degree of Master of Orthopaedic Surgery</td>
<td>191</td>
</tr>
<tr>
<td>University of St Andrews: Chair of Orthopaedic Surgery—Professor I. S. Smillie</td>
<td>191</td>
</tr>
<tr>
<td>University of Oxford: Nuffield Department of Orthopaedics—Announcement of Course on the Basic Sciences of the Musculo-skeletal System</td>
<td>203</td>
</tr>
<tr>
<td>University of Leiden: Appointment of Professor of Orthopaedic Surgery—J. D. Mulder</td>
<td>799</td>
</tr>
<tr>
<td>University of Amsterdam: Appointment of Professor of Orthopaedic Surgery—O. Verbeek</td>
<td>799</td>
</tr>
<tr>
<td>British Orthopaedic Association—Election of Corresponding Fellows, Emeritus Fellows, Fellows, Members and Associates</td>
<td>190, 591</td>
</tr>
<tr>
<td>Sir Harry Platt’s Eightieth Birthday</td>
<td>192</td>
</tr>
<tr>
<td>The Reginald Mitchell Memorial Lecture</td>
<td>192</td>
</tr>
<tr>
<td>Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry—Symposium on the Biological Effects of Phytohaemagglutinin 1966</td>
<td>195</td>
</tr>
</tbody>
</table>
### VOLUME CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jamaica—Second Commonwealth Paraplegic Games</td>
<td>198</td>
</tr>
<tr>
<td>British Orthopaedic Association and Scandinavian Orthopaedic Association—Announcement of Meeting</td>
<td>201</td>
</tr>
<tr>
<td>Fifth Combined Meeting of Orthopaedic Associations of the English-speaking World (1970)—Announcement</td>
<td>201</td>
</tr>
<tr>
<td>Bio-Engineering: Human Joint Lubrication—Announcement of Symposium</td>
<td>203</td>
</tr>
<tr>
<td>The Second Kenneth Pridie Memorial Lecture—Announcement</td>
<td>203</td>
</tr>
<tr>
<td>Visit of the Travelling Fellows to North America 1966</td>
<td>374</td>
</tr>
<tr>
<td>Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry—Second National Symposium 1967</td>
<td>393</td>
</tr>
<tr>
<td>American Society for Surgery of the Hand—Announcement of 1968 Meeting</td>
<td>393</td>
</tr>
<tr>
<td>Association of Surgeons of India—Announcement of Future Meetings</td>
<td>393</td>
</tr>
<tr>
<td>Austrian Society for Accident Surgery—Announcement of Third Congress 1967</td>
<td>393</td>
</tr>
<tr>
<td>Yugoslavian and Italian Congress of Orthopaedic Surgery and Traumatology—Announcement of Special Meeting 1967</td>
<td>393</td>
</tr>
<tr>
<td>Yugoslavia and Italian Congress of Orthopaedic Surgery and Traumatology—Announcement of Joint Meeting 1967</td>
<td>393</td>
</tr>
<tr>
<td>Robert Jones Golf Cup 1967</td>
<td>591</td>
</tr>
<tr>
<td>Messrs E. &amp; S. Livingstone Limited—Retirement of Directors</td>
<td>592</td>
</tr>
<tr>
<td>Ethiopia—Second Symposium on Rehabilitation in Africa</td>
<td>593</td>
</tr>
<tr>
<td>Uganda: Wheel-Chairs for Developing Countries of the World—S. C. M. Hunt and R. L. Huckstep</td>
<td>595</td>
</tr>
<tr>
<td>British Orthopaedic Association: Travelling Fellowships to North America 1968—Announcement</td>
<td>597</td>
</tr>
<tr>
<td>British Club for Surgery of the Hand—Announcement of Instructional Course</td>
<td>598</td>
</tr>
<tr>
<td>International Society of Orthopaedic Surgery and Traumatology (S.I.C.O.T.)—Announcement of 1969 Meeting</td>
<td>598</td>
</tr>
<tr>
<td>Western Pacific Orthopaedic Association—Announcement of Second Congress 1968</td>
<td>598</td>
</tr>
<tr>
<td>Mexican Orthopaedic Society—Announcement of Tenth Meeting 1968</td>
<td>598</td>
</tr>
<tr>
<td>France: Fifth European Symposium on Calcified Tissues 1967</td>
<td>795</td>
</tr>
<tr>
<td>Jamaica: Bone Tumours in Jamaica—A. Talerman, J. S. R. Golding and D. Kirkpatrick</td>
<td>802</td>
</tr>
<tr>
<td>British Orthopaedic Association and German Orthopaedic Association—Announcement of Joint Meeting 1968</td>
<td>808</td>
</tr>
<tr>
<td>Robert Jones Medals and Prizes 1965 and 1966</td>
<td>808</td>
</tr>
<tr>
<td>European Association of Radiology: Symposium Ossium—Announcement</td>
<td>808</td>
</tr>
</tbody>
</table>

### Book Reviews

- **Wound Healing**—Sir Charles Illingworth (Editor)  
  Page 204
- **Clinical Pathology**—J. D. Allan Gray and George Discombe  
  Page 204
- **Fracture Problems**—William Hamilton Harris, William Norman Jones and Otto E. Aufranc (Editors)  
  Page 205
- **The Roentgenological Features of Sickle Cell Disease and Related Hemoglobinopathies**—Jack Reynolds  
  Page 205
- **The Shoulder**—E. A. Codman (Reprint of the 1934 edition)  
  Page 206
- **Die Wirbelsäulenleiden und ihre Differentialdiagnose (Fourth edition)**—J. E. W. Brocher  
  Page 206
- **Die angeborenen Fehlbildungen der Hand und ihre operative Behandlung**—Alfred N. Witt, Horst Cotta and Michael Jäger  
  Page 207
- **Physical Examination of the Joints**—William P. Beetham, Jun., Howard F. Polley, Charles H. Slocumb and Walt. F. Weaver  
  Page 207
- **Biomechanics and Related Bio-Engineering Topics**—R. M. Kenedi (Editor)  
  Page 207
VOLUME CONTENTS

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlas of Orthopaedic Exposures—Toufick Nicola</td>
<td>208</td>
</tr>
<tr>
<td>An Atlas of Orthopedic Surgery—Lewis Cozen</td>
<td>208</td>
</tr>
<tr>
<td>The Psychological Aspects of Rheumatoid Arthritis—Harold Geist</td>
<td>208</td>
</tr>
<tr>
<td>The Pathology of Limb Ischaemia—J. Henry Dible. Number 3. Pathological Monographs—Sir Roy Cameron and G. Paying Wright (Editors)</td>
<td>394</td>
</tr>
<tr>
<td>Rehabilitation of the Hand (Second edition)—C. B. Wynn Parry assisted by Barbara Sutcliffe and Doris Millar with contributions from D. A. Brewerton and D. Brooks</td>
<td>395</td>
</tr>
<tr>
<td>Scoliosis—Robert Roaf</td>
<td>395</td>
</tr>
<tr>
<td>Spinal Injuries—Phillip Harris (Editor) and J. J. Mason Brown (President)</td>
<td>396</td>
</tr>
<tr>
<td>Geschichte der Fusspflege—Bruno Valentin</td>
<td>396</td>
</tr>
<tr>
<td>Current Practice in Orthopaedic Surgery 1966, Volume 3—John P. Adams (Editor)</td>
<td>396</td>
</tr>
<tr>
<td>Heritable Disorders of Connective Tissue (Third edition)—Victor A. McKusick</td>
<td>397</td>
</tr>
<tr>
<td>Studies on the Anatomy and Function of Bone and Joints—F. Gaynor Evans (Editor)</td>
<td>398</td>
</tr>
<tr>
<td>Treatment of Legg-Calvé-Perthes' Disease—Johannes Meyer</td>
<td>399</td>
</tr>
<tr>
<td>The History of Diseases—Folke Henschen</td>
<td>399</td>
</tr>
<tr>
<td>Radiological Atlas of Bone Tumours, Volume 1—The Netherlands Committee on Bone Tumours</td>
<td>599</td>
</tr>
<tr>
<td>The Management of Head Injuries—Walpole Lewin</td>
<td>600</td>
</tr>
<tr>
<td>Congenital Idiopathic Talipes—James L. LeNoir, III</td>
<td>600</td>
</tr>
<tr>
<td>Questions and Answers in Orthopaedics—Floyd G. Goodman and George R. Schoedinger, III</td>
<td>600</td>
</tr>
<tr>
<td>Lehrbuch der Orthopadie und Traumatologie—Max Lange. Volume III—Traumatologie—with the assistance of Dr Erwin Hipp.</td>
<td>601</td>
</tr>
<tr>
<td>Ethical Responsibility in Medicine—Vincent Edmunds and C. Gordon Scorer (Editors)</td>
<td>601</td>
</tr>
<tr>
<td>Today’s Health Guide—W. W. Bauer (Editor)</td>
<td>601</td>
</tr>
<tr>
<td>Proceedings of a Symposium on Scoliosis—P. A. Zorab (Editor)</td>
<td>602</td>
</tr>
<tr>
<td>The Treatment of Fractures—Lorenz Böhler. Supplementary volume to the fifth English edition—Lorenz Böhler and Jorg Böhler</td>
<td>602</td>
</tr>
<tr>
<td>Club-Foot—Alfred T. Fripp and Norman E. Shaw</td>
<td>809</td>
</tr>
<tr>
<td>The Blood Supply of the Lower Limb Bones in Man (Descriptive and Applied)—Henry V. Crock, assisted by Carmel Crock</td>
<td>810</td>
</tr>
<tr>
<td>Cervical Spondylosis and Other Disorders of the Cervical Spine—Lord Brain and Marcia Wilkinson (Editors)</td>
<td>812</td>
</tr>
<tr>
<td>Prognose und Behandlung der Skliose—Heinrich Scheier</td>
<td>812</td>
</tr>
<tr>
<td>Modern Trends in Rheumatology—1—Alan G. S. Hill (Editor)</td>
<td>813</td>
</tr>
<tr>
<td>Emergency Surgery of the Hand—Erik Moberg</td>
<td>813</td>
</tr>
<tr>
<td>Calcium Metabolism and Bone Disease—W. P. U. Jackson</td>
<td>814</td>
</tr>
<tr>
<td>New Essential First Aid—A. Ward Gardner and Peter J. Roylance</td>
<td>814</td>
</tr>
</tbody>
</table>
The Journal of Bone and Joint Surgery
A hip prosthesis will be subjected to seventeen million weight bearing cycles in ten years.

It is well accepted that a prosthesis must be able to resist corrosion and be well tolerated by body tissues. However, careful examination of the causes of implant failure will show that mechanical failure far outweighs the incidence of corrosion. It is therefore not surprising that a growing number of surgeons throughout the world are basing their selection of metal on mechanical features, for it has been authoritatively stated, ‘in ten years a hip prosthesis will be subjected to more than seventeen million weight bearing cycles’.

Today, surgeons have in Titanium, a metallic element which has not only outstanding resistance to corrosion—it is completely inert—but a strength for weight ratio superior to all other metals used for implantation. Titanium’s ability to meet the searching requirements of successful implantation on all grounds makes it the ultimate metal for surgical implants. We would like to send you full information about our Titanium range of implants.
