

§ 16. Congenital Dislocations of the Tarsal Bones.

Under this general term may be included all those varieties of subluxation of the several bones which compose the tarsus, and which are known as examples of talipes or club-foot; such as tibio-astragaloid dislocations, astragalo-scaphoid, calcaneo-astragaloid, calcaneo-cuboid, etc.

Although these deformities may properly enough claim a place in a chapter on congenital dislocations, they have so long been the subjects of special treatises as to justify their exclusion from the present volume.

§ 17. Congenital Dislocations of the Toes.

Observed occasionally at the metatarso-phalangeal articulations; the articular facets of the first phalanges suffering a subluxation upwards, or laterally upon the corresponding metatarsal bones.

Guérin has noticed especially a congenital lateral subluxation of the great toe.¹

¹ Guérin, *op. cit.*, p. 34.

INDEX.

PART I. FRACTURES.

- A**BSCESS in fracture of the sternum, 200
 Acetabulum, 407
 Acromion process, 243
 Amesbury's thigh splint, 471
 Anæsthetics, use of, in diagnosis, 46
 Anaplasty in fractures of the septum narium, 120
 Anatomical neck of humerus, 251
 Anchylosis after Colles's fracture, 337
 after fractures of elbow, 316
 after fracture of patella, 546
 of knee, 526
 Antiseptic dressings, 80
 Apparatus immobile, 71
 Arytenoid cartilages, fractures of, 167
 Astragalus, 604
 Asymmetry of long bones, 470
 Atlas, 193
 Atrophy of bone, senile, 37
 surgical neck of humerus, 266
 neck of femur, intracapsular, 420
 tibia above tubercle, 567
 Axis, 190
 and atlas, 194
- B**ADLY united fracture of leg, 603
 fracture of radius, 333
 Barton's bran dressing, 82
 Base of acetabulum, 408
 of condyles of femur, 515
 of condyles of humerus, 289
 Bauer's wire splints, 597
 Bean, lower jaw apparatus, 151
 Bending of bones, 96
 Bigelow, stellate fracture of lower end of radius, 331
 rim of acetabulum, 414
 Boardman, fracture of zygoma, 131
 Body of the scapula, 237
 Bodies of the vertebrae, 179
 Bond's elbow splint, 296
 radius splint, 342
 Bosworth, Frank, tracheotomy in fracture of lower jaw, 135
 Box for leg, 599
 Boyer's thigh splint, 472
- Brainard, perforator, 92
 Buck, lower jaw, 134
 thigh splint, 479
 Burge, patella, 558
- C**ALCANEUM, 606
 Carpal bones, 391
 Cartilages of the ribs, 208
 Cervical ligaments, strain of, 186
 vertebrae, bodies of five lower, 184
 axis, 190
 atlas, 193
 atlas and axis, 194
 Children, fracture of femur, 510
 Chronic rheumatic arthritis, 436
 Clark, fracture of humerus, 283
 Clavicle, 209
 partial fractures, 236
 Cline, trephining vertebrae, 176
 fracture of atlas, 193
 Coates, fracture-bed, 503
 Coccyx, 416
 Colles's fracture, 326
 Comminuted fracture, 79
 Common signs of fracture, 42
 Compound fractures, 79
 forearm, 391
 thigh, 515
 patella, 565
 tibia and fibula, 580
 Concussion of spinal marrow, 186
 Condyles of humerus, 301
 internal, 310
 external, 313
 base, 289
 base and between condyles, 298
 of femur, 523
 external, 523
 internal, 525
 base, 515
 between condyles, 527
 Congenital, 39, 278, 567
 Cooper, Sir Astley, fracture of olecranon process, 361
 neck of femur within capsule, 430
 patella, 556
 Coracoid process, 247

Coronoid process of ulna, 365
Cotyloid cavity, 408
Crandall, extension, fracture of leg, 595
Cricoid cartilage, 167, 168
Crosby, femur, external condyle, 523

DANIELS'S fracture-bed, 503
Deformities of legs, 602
Delayed or non-union, 84
Dennis, F. S., fracture of inferior maxilla, 139
Denticulated fractures, 36
Dextrine, 72
Diagnosis, general, 42
Dieffenbach, tenotomy in fracture of olecranon process, 364
Dislocation of humerus, differential diagnosis, 268
Dorsal vertebrae, 183
Dorsey, fracture of patella, 556
Dugas, sign of dislocation of humerus, 268
Dupuytren's case of fracture of a dorsal vertebra, 183
body of a lower cervical vertebra, 183
dressing for fracture of fibula, 578

ELLOW splint, Physick's, 295
Kirkbride's, 295
Rose's, 296
Welch's, 296
Bond's, 296
the author's, 297
Elee, fracture of axis, 190
Embolism, venous and fatty, 60
Emphysema in fracture of ribs, 205
Epicondyle of humerus, external, 309
internal, 302
Epiphyseal separations, 37
acromion, 244
humerus, upper end, 259
lower end, 290
olecranon process, 366
femur, upper end, 423
lower end, 528
trochanter major, 451
tibia, 567
Epiphyses, sternum, 195
scapula, 245
humerus, 260
radius, 355
ulna, 368
os innominatum, 399
femur, 418
tibia, 567
fibula, 572
Epitrochlea, 302
Etiology, general, 37
Eve, non-union of ribs, 204
patella, 565
Exciting causes, general, 38
Experiments on bending, 97
on partial fractures, 102, 105

External epicondyle of humerus, 309
condyle of humerus, 312
femur, 523
Extension of thigh by adhesive plaster, 502, 505

FANNING, N., humerus, 278
Fatty embolism, 60
Fauger, Colles's fracture, 342
Felt splints, 69
Femur, 418
neck, within capsule, 420
upper epiphysis, 423
neck, anatomy of, George K. Smith, 455
differential diagnosis, 449
without capsule, 445
trochanter major and base of neck, 454
epiphysis of trochanter major, 456
shaft, 458
lower third, 516
measurement of, 469
in children, 510
external condyle, 523
internal condyle, 525
between condyles, 527
base, and between the condyles, 527
delayed and non-union, 530
separation of lower epiphysis, 528

Fibula, 572
Fingers, 395
Fissures, 108
neck of femur, 419
Fitch, fracture of lower jaw, 154
Flagg's thigh apparatus, 478
Forearm, 318
Four-tailed bandage for broken jaw, 156
Fractures, 35
general etiology, 37
general semeiology and diagnosis, 42
repair of, 46
general prognosis, 52
general treatment, 61
delayed union, 84
incomplete, 96
Fracture-beds, 503
Jenk's, 503
Hewson, 503
Barton, 503
Coates, 503
Daniels, 503
Burges, 503
Crosby, 504
Fracture-box, 599

GANGRENE, after use of immovable apparatus, 74, 489, 512
after fracture at base of condyles of humerus, 294
Dupuytren's cases after fracture of radius, 350
Robert Smith's cases, 352
Norris, 353

Gangrene—
after fracture of forearm, 382
patella, 555, 559
leg and thigh, from tight roller, 353, 485, 489, 512, 587
General division of fractures, 35
etiology of fractures, 37
semeiology of fractures, 44
prognosis of fractures, 52
treatment of fractures, 61
Gibson, inferior maxilla, 155
Gilbert, apparatus for broken femur, 481
leg, 595
Glenoid cavity of scapula, comminuted, 242
Gout, cause of fracture, 38
Granger, fracture of epicondyle, 304
Greater tubercle of humerus, 257
Gum-shellac splints, 69
Gunshot fractures, 613
treatment in, 615
Gutta-percha splints, 70

HARROLD, lumbar vertebrae, 183
Hartshorne, Edward, clavicle, 225
Hartshorne, Joseph E., thigh apparatus, 480
Hays, radial splint, 342
Hayward, lower jaw, 146
Head of radius, 318
and anatomical neck of humerus, 251
Head and neck of humerus, longitudinal fracture, 257
Hereditary fragility, 38
Hewson, fracture-bed, 503
Hodge, thigh splint, 482
Hodgen's fracture-cradle, 618
wire suspension splint, 476
Horner, thigh apparatus, 480
Hot water, 82
Humerus, 250
anatomical neck, 251
head and neck, 251
tubercles, 256
longitudinal fracture of head and neck, 257
surgical neck, 259
upper epiphysis, 259
differential diagnosis, 268
shaft, 277
lower epiphysis, 290
base of condyles, 289
with splitting of condyles, 298
condyles, 309
internal epicondyle, 302
external epicondyle, 309
internal condyle, 310
external condyle, 313
delayed union, 279
dislocation of, 268
Hunt, Wm., fracture of larynx, 170
styloid process of radius, 355
Hutchinson, leg splint, 593
Hyde, F. E., fractures of femur, 418, 419, 441, 445
Hyoid bone, 160

ILIIUM, 404
Immovable apparatus, 71
patella, 560
leg, 588
thigh, 487
dangers of, 74, 294, 350, 352, 353, 382, 485, 489, 612, 555, 559, 587
Impacted fractures, 36
head and neck of humerus, 251
tubercles, 256
neck of femur within capsule, 420
without the capsule, 445
radius, 330, 337
Incomplete fractures, 96
Inferior maxilla, 133
Interstitial absorption of neck of femur, 436
Internal condyle of humerus, 310
femur, 525
Interdental splints, 147
Intrauterine fracture, 39, 277, 567
Ischium, 403

JACKSON, acromion process, 244
Jenks, fracture-bed, 503
Johnson, neck of femur, 482

KEY, lumbar vertebrae, 183
Kingsley, fracture of lower jaw, 154

LANGE, separation of lower epiphysis of humerus, 291
Larynx, fracture of, 165
Laudale, patella, 557
Lente, fracture of dorsal vertebrae, 183
femur, 481
non-union, 89
pelvis, 399
Levis, splint for radius, 347
Listerism, 80
Liston, thigh splint, 482
leg splint, 597
Lonsdale, extension in fracture of humerus, 282
patella, 557
Lower jaw, 133

MALAR bone, 121
Malgaigne, apparatus for fracture of patella, 550
of leg, 601
Malleolus internus, 567
Many-tailed bandage, 63
Mason, ossa nasi, 115
Maxilla, superior, 124
inferior, 123
Measurement of bones, 58
of humerus, 289
of thigh and leg, 469
Metacarpus, 392
Metatarsus, 611

Metallic splints, 65
 Mollities ossium, cause of fracture, 38
 Monahan, fracture of astragalus, 604
 Moore, Colles's fracture, 322
 fracture of clavicle, 228
 Morbus coxae senilis, 436
 Mühlenberg, tables of ununited fractures,
 95, 142, 218, 280, 531, 569, 585
 Muscular action, cause of fracture, 39
 Mütter, neck of radius, 321

NECK of femur, 419
 within capsule, 420
 prognosis, 430
 G. K. Smith on, 435
 without capsule, 445
 Neck of humerus, anatomical, 252
 surgical neck, 259
 Neck of lower jaw, 135, 159
 of radius, 320
 of scapula, 242
 Neill, maxilla, superior, 129
 coracoid process, 247
 thigh, 476
 leg, simple fracture, 593
 compound fracture, 594
 Nélaton, radial splint, 341
 Nerves, conditions of, causing fractures,
 38
 Non-union, 84
 clavicle, 218
 femur, 529
 fibula, 576
 humerus, 279
 lower jaw, 142
 patella, 536
 ribs, 204
 tibia, 569
 tibia and fibula, 585
 Norris, George W., delayed and non-
 union, 84
 astragalus, 607
 gangrene from bandages, 353
 tibia, 571
 Nose, fracture of, 113
 Nott, wire splints, 66
 thigh apparatus, 473

ODONTOID process of axis, 190
 Edema after removal of dressings,
 55
 Olecranon process, 356
 epiphyseal separation, 365
 tenotomy, 364
 Ossa nasi, 113

PACKARD, J. A., clavicle, 226
 inferior maxilla, tenotomy, 148
 Palmer's thigh splint, 475
 Paralysis after fracture of spine, 171
 inferior maxilla, 138
 clavicle, 219

Paralysis after fracture—
 internal epicondyle of the humerus,
 305, 307
 base of condyle, 293
 upper end of fibula, 576
 Partial fracture, 99
 Patella, 534
 Pelvis, 399
 traumatic separations, 399
 Phalanges of fingers, 395
 toes, 612
 Plaster of Paris, see *Immovable Dressings*.
 Prognosis, general, 52
 Pubes, 399
 Pulmonary venous embolism, 61

RADIUS, 318
 Radius and ulna, 380
 Reduction of fractures; general consider-
 ations, 61
 Refracture of badly united legs, 603
 Repair of fracture, 46
 Resection for badly united fractures, 602
 Rheumatic arthritis, chronic, 436
 Rhinoplasty, 120
 Ribs, 202
 cartilages of, 208
 Rim of acetabulum, 411
 Rodet, neck of femur, 421
 Rogers, trephining vertebrae, 177
 Roller, 63
 Rose, elbow splint, 296

SACRUM, 415
 Sacro-iliac symphysis, 416
 Salter's cradle for leg, 598
 Sargent, separation of upper maxillary
 bones, 124
 Sayre, L. A., clavicle, 229
 prognosis, 55, 464
 Scapula, 237
 body, 237
 neck, 242
 acromion process, 243
 coracoid process, 247
 epiphyses of, 245
 Scultetus, bandage, 64
 Semeiology, general, 42
 Senile atrophy, see *Atrophy of Bone*.
 Septum narium, 118
 Setting bones, 62
 Sentin, dressing, 71
 Shaft of humerus, 277
 from muscular action, 277
 femur, 458
 radius, 324
 ulna, 356
 Shellac splints, 69
 Shoulder-joint; differential diagnosis of
 accidents, 268
 Shradly, radius splint, 341
 Side splints, 65
 Simmons, extension apparatus, 484
 Sling for broken jaw, 156

Smith, E. P., radial splint, 342
 Smith, Nathan R., fracture of femur,
 473
 Smith, Robert, head of humerus, 253
 Smith, Stephen, fracture of lower jaw,
 134
 odontoid process of axis, 192
 Smith, George K., insertion of capsule of
 hip-joint, etc., 435
 Spinal marrow, concussion, 186
 Spinous processes, vertebrae, 171
 ilium, 171
 Splints, 65
 Starch bandage, 71
 Sternum, 195
 diastasis, 195
 Styloid process of radius, 331
 of ulna, 380
 Surgical neck of humerus, 253, 270, 274
 Swing-box for leg, 598
 Symphyses of pelvis, 399
 of pubes, 399
 sacro-iliac, 416
 Symphysis pubis, separation of, 399
 Syphilis, cause of fracture, 38

TARSUS, 604
 astragalus, 606
 calcaneum, 606
 Tenotomy in fractures of olecranon pro-
 cess, 364
 Thompson, fracture of lumbar vertebrae,
 182
 Thyroid cartilage, 165
 Thyroid and cricoid cartilages, 167
 Tibia, 566
 Tibia and fibula, 580
 Toes, 612
 Trader's suspension apparatus, 599
 Transverse processes of spine, 173
 Treatment of fractures, general, 61
 Trephining for fracture of vertebrae, 176
 Tripolith, 73
 Trochanter major, 454
 Trochlea of humerus, 259
 Tubercles of humerus, 256, 269, 273
 Turner, patella splint, 558

ULNA, resection of, 372
 Ulna, 356
 shaft, 375
 coronoid process, 365
 olecranon process, 356
 styloid process, 380
 Upper epiphysis, humerus, 260
 femur, 425
 Upper maxillary bones, 124

VANDEVENTER, fracture of vertebral
 arch, 174
 Van Wageningen's suspension apparatus, 591
 Velpen, mode of dressing fractures with
 dextrine and rollers, 72
 Venous embolism, 61
 Vertebral arches, 174
 Vertebrae, 171
 spinous processes, 171
 transverse processes, 173
 vertebral arches, 174
 bodies, 179
 lumbar, 181
 dorsal, 183
 cervical, 184
 axis, 190
 atlas, 193
 atlas and axis, 194

WACKERHAGEN, fractured leg, 592
 Warren on ankylosis at elbow-
 joint, 316
 Water, warm and hot, 82
 Water-beds, 189
 Wells, internal condyle of femur, 525
 Wire-beds, 189
 Wire-splints, 66
 Wire rack for fracture of leg, 600
 Wooden splints, 67
 Wrist, 391
 Wyeth, patella splint, 559

ZUCKERKANDL, epicondyles, 305,
 310
 Zygomatic arch, 130

PART II. DISLOCATIONS.

AGNEW, D. H., rupture of axillary vein, 715
 Anæsthetics, 637
 Ancient dislocations, 629
 inferior maxilla, 640
 spine, 652
 clavicle, outer end, 677
 humerus, 706
 head of radius forwards, 746
 radius and ulna backwards, 762
 thumb, 796
 femur, 872
 Andrews, inferior maxilla, 638
 Ankle-joint, 916
 Anomalous dislocations of the hip, 863. See *Femur*.
 Anterior oblique dislocations, 867
 Astragalo-calcaneo-scapoid dislocations, 943
 Astragalus, 931
 Atlas, dislocations of, 660
 Axillary artery, rupture of, 712
 vein, rupture of, 715
 Ayres, dislocation of cervical vertebra, 658

BATCHELDER, head of radius, 748
 thumb, 800
 Biceps, rupture or displacement of, 739
 Bigelow, H. J., on dislocations of hip, 813
 Blackman, ancient dislocations of humerus, 712
 femur, 875
 Bloxham's dislocation tourniquet, 829
 Brainard, reduction of ancient dislocation of elbow, 762

CALCANEUM, dislocation of, 946
 Canton, radius and ulna forwards, 775
 Carpus, 779
 backwards, 782
 forwards, 785
 congenital, 984
 Carpal bones among themselves, 789
 Carpo-metacarpal articulations, 791
 Cartilages, of ribs from sternum, 665
 of ribs upon one another, 666
 in knee-joint, 913
 Caswell, congenital dislocation of patella, 992
 Clavicle, dislocations of, 667
 sternal end forwards, 667
 sternal end upwards, 671
 sternal end backwards, 673
 acromial end upwards, 675
 acromial end downwards, 681
 under coracoid process, 683

Clavicle—
 both ends, 684
 congenital, 978
 Clove-hitch, 636, 798
 Compound pulleys, 637
 Compound dislocations of the long bones, 954
 reduction in, 959
 non-reduction in, 962
 amputation in, 962
 tenotomy in, 963
 resection in, 964
 Congenital dislocations; general observations and history, 970
 general etiology, 971
 inferior maxilla, 974
 spine, 977
 pelvic bones, 977
 sternum, 978
 clavicle, 978
 shoulder, 979
 radius and ulna backwards, 983
 head of radius, 983
 wrist, 984
 fingers, 985
 hip, 985
 patella, 991
 knee, 993
 tarsus, 996
 toes, 996
 Cooper, Sir Astley, method of reducing dislocation of humerus, 702
 Coxo-femoral dislocations, 808. See *Femur*.
 Crosby, dislocation of thumb, 800
 ancient dislocation of elbow, 763
 Cuboid, dislocations of, 947
 Cuneiform bones, dislocation of, 948

DAMAINVILLE, statistics of dislocations of femur, 830
 Darby, shoulder, 699
 Davis, G. P., vertical dislocation of patella, 899
 Direct causes of dislocations, 631
 Dislocations, 629
 Division and nomenclature of dislocations, 629
 Double dislocation of lower jaw, 640
 Dougherty, patella, 901
 Dynamometer, 829

ELBOW-JOINT, 752
 Everted dorsal dislocation of femur, 818
 Exciting causes, general, 631
 Extension by a twisted rope, 636, 828

FEMUR, dislocation of, 808
 dislocation on dorsum ilii, 810
 reduction by manipulation, 819
 reduction by extension, 825
 dislocation into great ischiatic notch, 841
 below the tendon, 844
 dislocation into the foramen thyroideum, 849
 dislocation upon the pubes, 857
 anomalous dislocations of the femur, 868
 downwards and backwards upon the body of the ischium, 868
 downwards and backwards into lesser ischiatic notch, 869
 behind the tuber ischii, 869
 dislocation directly up, 863
 directly down, 870
 forwards into perineum, 870
 ancient dislocations, 872
 partial dislocations, 880
 with fracture, 881
 in children, 808
 congenital, 985
 voluntary, 884
 Fenner, dislocation of femur on dorsum ilii, 812
 Fibula, upper end forwards, 927
 backwards, 928
 lower end, 930
 "Fifth" dislocation of femur, 869
 Fingers, dislocations of first phalanx, 804
 second and third, 805
 congenital, 985
 voluntary, 890
 Foot, dislocation outwards, 916. See *Tibia*.
 Fountain, dislocation of femur upon pubes, 861

GENERAL division, 629
 direct or exciting causes, 631
 predisposing causes, 630
 prognosis, 634
 pathology, 633
 treatment, 634
 symptoms, 632
 Gerster, dislocation of long head of biceps, 742
 Gibson, ancient dislocation of humerus, 714
 Gilbert, A. W., dislocation of lower jaw, 638
 Grant, astragalus, 942
 Graves, dislocation of dorsal vertebrae, 651
 Gunn, Moses, dislocation of thigh on dorsum ilii, 813, 815, 825
 ischiatric notch, 843
 foramen thyroideum, 851
 upon pubes, 859
 shoulder downwards, 688

HART, dislocation of astragalus, 939
 Hartshorne, reduction of humerus by manipulation (note), 719

Head upon the atlas, 663
 Haynes, S., double dislocation of clavicle, 686
 Hickerman, cervical vertebrae, 656
 Hip, congenital dislocations of, 985
 Hodge, statistics of dislocations of the femur, 808, 892
 Horner, partial dislocation of fourth cervical vertebrae, 654
 Howe, reduction of dislocation of the hip by manipulation, 822
 Humerus, dislocations of, 685
 double, 719
 downwards, 686
 forwards, 719
 fracture in reduction, 716
 backwards, 728
 upwards, 734
 partial, 738
 ancient, 706
 rupture of axillary artery, 712
 rupture of axillary vein, 716
 rupture of axillary artery and vein, 715
 cerebral congestion, 715
 injury to axillary nerves, 716
 avulsion of arm, 716
 inflammation, 716
 congenital, 979
 Humero-scapular dislocation, 685. See *Humerus*.
 Hutchison, dislocation of femur, 842
 Hyoid bone, dislocation of, 646

ILIO-FEMORAL ligament, 814
 Ilio-pubic dislocation of femur, 857
 Indian "puzzle," 706, 802
 Inferior maxilla, 637
 double dislocation, 638
 single dislocation, 642
 congenital dislocation, 974
 Ingalls, reduction of dislocation of hip by manipulation, 824
 Internal derangement of knee-joint, 918
 Ischio-pubic dislocation of femur, 849
 Ischiatic dislocation of femur, 841

JARVIS'S adjuster, 636, 703, 828
 Jaw, lower, 637

KIRKBRIDE, dislocation of the femur upon posterior part of the body of the ischium, 869
 Knee, slipping of semilunar cartilages, 913. See *Tibia*.
 Krackowizer, dislocation of head of radius in delivery, 744

LA MOTHE, method of reducing dislocation of humerus, 701
 Lehman, spontaneous dislocation of shoulder, 687

Lente, fifth cervical vertebra, with fracture, 654
 fifth cervical vertebra, without fracture, 654
 femur directly upwards, 866
 Levis, reduction of dislocation of thumb, 801
 Ligamentum patellæ, rupture of, 902
 Lister, rupture of axillary artery, 714
 Long bones, compound dislocation in, 954
 Long head of biceps, displacement of, 739
 Lower jaw, 637
 double dislocation, 638
 single dislocation, 642
 simulating luxation of, 645
 Lumbar vertebrae, 648
 Lunare, 791

MAGNUM, 790

and cuneiform, 730
 Markoe, on reduction of dislocation of femur, 824
 head of radius backwards, 749
 femur with fracture reduced, 883
 Maxilla, inferior, congenital, 974
 Maxson, dislocation of cervical vertebrae, 657
 Mercer, on partial dislocations of humerus, 741
 Metacarpus, 791
 Metacarpo-phalangeal articulation, 795
 Metatarsus, 950
 Middle carpal dislocation, 791
 tarsal dislocation, 946
 Moore, on reduction of dislocation of femur, 813
 ulna, 332
 Mussey, dislocation of the thumb, 799
 ancient dislocation of elbow, 763

NORRIS, George W., ancient dislocations of the humerus, 777, 722
 dislocation of humerus mistaken for a contusion, 722
 compound dislocation of thumb, 803
 Norris, Basil, astragalus, 940
 North, N. C., double dislocation of clavicle, 684

OCCIPITO-ATLOIDEAN dislocations, 663

PACKARD, John H., dislocation of great toe, 953
 Pardee, E. L., double dislocation of humerus, 720
 Parker, head of humerus in subscapular fossa, 720
 backwards, 728
 head of radius backwards, 749
 head of radius outwards, 751
 femur into perineum, 871

Patella, outwards, 893
 inwards, 896
 on its axis, 897
 upwards, 902
 downwards, 903 (note)
 spontaneous, 892
 congenital, 991
 Pathology, general, 633
 Pelvis, congenital, 997
 Peroneo-tibial, 930
 Pettit, A., dislocation of tibia, 908
 Phalanges, thumb and fingers, 795
 toes, 952
 Pisiform, 790
 Pope, dislocation of femur into perineum, 871
 Predisposing causes, general, 630
 Prognosis, general, 634
 Pseudo-luxations of inferior maxilla, 645
 Pulleys, 637
 Purple, dislocation of cervical vertebrae, 654

QUADRICEPS, rupture of, 903

RADIUS, head dislocated forwards, 743
 backwards, 749
 outwards, 751
 downwards, 751
 congenital, 983
 Radius and ulna, dislocation backwards, 754
 congenital, 983
 outwards, 765
 inwards, 772
 forwards, 775
 Radius forwards and ulna backwards, 777
 Radio-carpal articulation, 779. See *Carpus*.
 Radio-ulnar articulation, inferior, 786
 Reid, reduction of dislocation of femur by manipulation, 824
 Ribs from vertebrae, 664
 from sternum, 665
 one cartilage upon another, 666
 Rochester, sternal end of clavicle upwards, 671
 Radiger, dislocation of dorsal vertebrae, 651
 Rupture of quadriceps femoris, 903
 Rupture of biceps, 739
 Rupture of ligamentum patellæ, 902

SACRO-SCIATIC dislocation of femur, 841
 Sanson, third cervical vertebra, 654
 Sayre, ancient of hip, 795
 Scaploid, dislocation of, 947
 Scapula, 889
 Schuh, dislocation of cervical vertebra, 655
 Shoulder, dislocations of, 685. See *Humerus*.

Single dislocation of lower jaw, 642
 "Sixth" dislocation of femur, 863
 Skey, method of reducing dislocation of humerus, 703
 Smith, Nathan, on reduction of dislocation of the humerus, 700
 reduction of femur by manipulation, 821
 Smith, H. H., on reduction of humerus, 705
 Spencer, dislocation of cervical vertebra, 655
 Spine, 647. See *Vertebrae*.
 Spontaneous dislocations. See *Voluntary Dislocations*, p. 884.
 Squier, T. H., dislocation of radius and ulna inwards, 774
 Sternum, 673
 congenital, 978
 Sternberg, vertical dislocation of patella, 899
 Subcoracoid dislocation of humerus, 719
 Subclavicular dislocation of humerus, 719
 Subcotyloid dislocation of femur, 870
 Subluxation of the jaw, 645
 Subglenoid dislocation of the humerus, 686
 Subpubic dislocation of femur, 849
 Subspinous dislocation of humerus, 728
 Swan, dislocation of dorsal vertebra, 652
 Symptomatology, general, 632

TARSUS, 931

astragalus, 931
 astragalo-calcaneo-scaploid, 943
 calcaneum, 945
 middle tarsal dislocation, 946
 os cuboides, 947
 os scaphoides, 947
 cuneiform bones, 948
 congenital, 996
 voluntary, 892
 Tendons, dislocation of, 739
 Thigh, 808. See *Femur*.
 Thumb, first phalanx, 795
 backwards, 795
 forwards, 803
 second phalanx, 805
 Tibia, dislocation of upper end, 904
 backwards, 904
 forwards, 906
 outwards, 909
 inwards, 910
 backwards and outwards, 911
 forwards and outwards, 912
 forwards and inwards, 912
 by rotation, 913
 congenital, 993
 lower end inwards, 916
 outwards, 921
 forwards, 922
 backwards, 926

Tibio-tarsal dislocations, 916
 Toes, 952
 congenital, 996
 Treatment, general, 634
 Tripod for vertical extension of femur, 840
 Trowbridge, head of humerus backwards, 728
 Twisted rope extension, 636

ULNA, upper end backwards, 752
 inwards, 753
 lower end backwards, 786
 forwards, 787
 Unilateral dislocation of lower jaw, 642

VAN BUREN, W. H., dislocation of humerus backwards, 728
 reduction of femur by manipulation, 833, 000
 Varick, T. R., radius and ulna outwards, 765
 Vertebrae, 647
 lumbar, 648
 dorsal, 650
 six lower cervical, 652
 atlas upon axis, 660
 head upon atlas, 663
 congenital dislocations, 977
 Voluntary and spontaneous dislocations, 884
 inferior maxilla, 645, 974
 scapula, 889
 humerus, 890
 wrist-joint, 890
 phalanges of fingers, 890
 hip-joint, 890
 knee-joint, 892
 ankle-joint, 892
 tarsal-joints, 892
 patella, 892

WARM water, 82
 Warren, C. H., the contortionist, voluntary dislocation, 888
 Waterman, T., reduction of elbow, 753
 Watson, dislocation of patella outwards, 895
 Wells, dislocation of tibia, 911
 Windlass for extension, 636, 828
 Wood, dislocation of cervical vertebrae, 658
 humerus, with fracture, 720
 Wrist, 779. See *Carpus*.

Y-LIGAMENT, 814
 Youmans, J., congenital dislocation of knee, 993