2. DISEASES AND INJURIES OF THE JOINTS.

GENERAL REMARKS.
Joints most liable to disease.

CAUSES OF DISEASE.

EFFECTS ON CONSTITUTION.

CLASSIFICATION.—All the diseases of the joints may be ranged under nine heads.

1. Diseases originating in the soft parts, either intra or extra-articular.
2. Diseases originating in the hard tissues of a joint.
3. Affections which may be considered as products or terminations of diseased action.
4. Malignant diseases of the joints.
5. Wounds.
7. Dislocations.

FIRST HEAD.

a. Synovitis—acute and chronic.
b. Hydrops articuli.
c. Abscess.
d. Elongation of ligaments.
e. Inflammation of ligaments.
f. Fleshy tumours of the synovial membranes.
g. Loose cartilages in the joints.
h. Certain forms of white swelling.
i. Coxalgia, or hip disease.
j. Neuralgia.
k. Inflammation of the cellular tissue.

SECOND HEAD.

a. Certain forms of white swelling.
b. Certain forms of coxalgia.

THIRD HEAD.

a. Hypertrophy of articular cartilage.
b. Atrophy of articular cartilage.
c. Eburnation of articular cartilage.
d. Softening of articular cartilage.
e. Ulceration of articular cartilage.
f. Reparation of articular cartilage after wounds, &c.
g. Alteration in the form of the head and neck of the long bones.
h. Collections of blood in a joint.
i. Chalkey concretions in a joint.
j. Ankylosis.
First Head.

I. SYNOVITIS.

Definition.

Causes.—1. Constitutional. 2. Local.

First, or constitutional.—Rheumatism, syphilis, gonorrhoea, parturition, pregnancy, checked leucorrhoea, catheterism.

Second, or local.—Blows, strains, mechanical injuries of all kinds, foreign bodies in the joints, wounds.

Symptoms.—Pain on the slightest motion; swelling, redness, heat, and tenderness of the skin; fluctuation; displacement of any loose bone or cartilage about the joint; and constitutional disturbance.

Diagnosis.—May be confounded with inflamed bursa, but scarcely with anything else.

Prognosis.—Varies. When but one joint is affected—when the cause is local—when the inflammation runs high—it may terminate in ulceration or degeneration of the synovial membranes, ulceration of the cartilages and bones, necrosis, the loss of the joint, or even the life of the patient. Under other circumstances the prognosis is rather favorable.

Dissection.

Treatment.—General indications. 1. Remove the cause. 2. Subdue the inflammation by general and local antiphlogistic remedies. 3. Employ specific remedies when the cause is specific. 4. Prevent anchylosis.

II. HYDROPS ARTICULI, OR HYDRAUTHUS.

Definition.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Dissection.

Treatment.

III. ABSCESS.

Definition.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Dissection.

Treatment.

IV. ELONGATION OF LIGAMENTS.

Definition.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Dissection.

Treatment.

V. INFLAMMATION OF LIGAMENTS.

Definition.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.
VI. FLESHY TUMOURS OF THE SYNOVIAL MEMBRANE.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.

VII. CARTILAGES IN THE JOINTS.

Definition and history.
Joints most liable.—The ginglymoidal, especially the knee, elbow and jaw.
Condition in the joint.—Loose or attached.
Size.—Varies.
Consistence.—Varies.
Structure.—Scarcely organized.
Number.—Varies.
Mode of formation.—Different explanations. Those of Paré, Monro, Erlangen, Hunter, Cooper, and Brodie, referred to.

Symptoms.
Diagnosis.
Prognosis.
Treatment.—Two general methods. 1. Compression. 2. Extraction. Relative value of the two. Dangers of extraction referred to, and the different operations, especially that of Goyraud and Syme, explained.

VIII. WHITE SWELLING, OR FUNGUS ARTICULI.

Definition.
Confusion in relation to the precise meaning of the term.
Brodie's Classification.—According to Sir Benj. Brodie, all the causes of white swelling may be referred to one of four different lesions. 1. Simple inflammation of the synovial membrane. 2. Gelatinous degeneration of the synovial membrane. 3. Ulceration of the cartilages. 4. Ulceration of the bones.

Ages most liable.
Joints most liable.
Causes.—Constitutional and local.
Symptoms.—Vary with the form of lesion. Three groups may be made.
Diagnosis.—Highly important to distinguish one from the other.
Prognosis.—Varies, but generally it is unfavourable.
Terminations.—Resolution, ankylosis, suppuration, alteration of all the tissues of the joint, necrosis, the loss of the joint or limb, or the life of the patient.
Dissection.—Depends on the stage at which it is made, and the form of the disease.

Treatment.—Differs somewhat in each variety, but there are certain general indications that will answer for all. The remedies are of course both constitutional and local.

General indications in the first stage of the disease.—1. Keep the part at rest by splints and position. 2. Employ general and local antiphlogistics if inflammation runs high. Prevent contraction of the limb.

General indications in the second stage.—1. Counter irritation should be employed. 2. Pressure as recommended by Scott is often useful. 3. Employ alternatives to suit the diathesis. 4. Keep the joint at rest, while the patient

Always confine the joint in a cast before any operation is attempted. This is the most important point.
IX. COXALGIA OR HIP DISEASE.

Definition.

Persons most liable.—Children of a scrofulous habit, from three to four years of age, or from seven to fourteen. May occur in adults.

Causes.—1. Constitutional. 2. Local.

First, or constitutional.—Scrofula, atmospheric changes, rheumatism, repelled eruptions.

Second, or local.—Mechanical injuries of every kind.

Symptoms.—May be divided into four groups. 1. Those which characterize the period of apparent elongation of the limb, with slight pain in the knee and lameness, &c. &c. 2. Those which belong to the period of shortening of the limb, with pain in the hip itself, &c. &c. 3. Those which characterize the period of suppuration and ulceration in the joint. 4. Those which indicate convalescence. The causes of elongation and shortening in the first and second stages explained.

Diagnosis.—May be confounded with—

a. Fracture of the cervix femoris.

b. Luxation of the caput femoris.

c. Congenital luxation.

d. Rheumatism.

e. Chronic inflammation of the upper third of the femur.

f. Sciatica.

g. Psoas abscess.

Prognosis.—May be stated to be generally unfavourable.

Dissection.—The appearances on dissection depend upon the stage and progress of the disease.

Pathology.—Much diversity of opinion on this point. State my own views.

Treatment.—General indications. 1. Rest and the antiphlogistic system throughout the first stage. 2. Place the limb in a splint of such construction as shall maintain the limb as nearly in its natural position as possible, so that when resolution cannot be obtained, and false joint or anchylosis must be brought about, the patient may still retain its use. Speak of Physick and Humbert's method of practice. 3. Attend to the Diathesis. 4. Apply counter irritants. 5. Support the health when this support is indicated. 6. Evacuate pus when it is formed in large quantities, poultice, and support the health. 7. When resolution cannot be obtained, endeavour to form a false joint, or establish anchylosis. 8. After inflammation has subsided, and the limb remains shortened from muscular contraction, it is often useful to employ Humbert's method of reduction. Point out the dangers of this practice, as well as its advantages. 9. Protect the limb for some time after the cure has been established. 10. When the limb is shortened or deformed, apply some apparatus by which the patient will be enabled to walk with comfort.
X. NEURALGIA.

Definition.
Persons usually attacked.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

XI. INFLAMMATION OF THE CELLULAR TISSUE EXTERIOR TO THE JOINT.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Treatment.

Second Head.

I. CERTAIN FORMS OF WHITE SWELLING.

For the characteristics of these forms, refer to what has already been given under the first head.

II. CERTAIN FORMS OF COXALGIA.

For the characteristics of these forms, refer to what has already been said under the first division.

Third Head.

I. HYPERTROPHY OF THE ARTICULAR CARTILAGES.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Dissection.

Treatment.

II. ATROPHY OF THE ARTICULAR CARTILAGES.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Dissection.

Treatment.

III. EBURNACTION OF THE ARTICULAR CARTILAGES.

Causes.

Symptoms.

Diagnosis.

Prognosis.

Dissection.

Treatment.

IV. SOFTENING OF THE ARTICULAR CARTILAGES.

Causes.

Symptoms.

Diagnosis.
Prognosis. Dissection. Treatment.

V. ULCERATION OF THE ARTICULAR CARTILAGES.

VI. REPARATION OF THE ARTICULAR CARTILAGE AFTER WOUNDS AND FRACTURES.
Describe this process.

VII. ALTERATION IN THE FORM OF THE HEAD AND NECK OF THE LONG BONES.

VIII. COLLECTIONS OF BLOOD IN THE CAVITY OF A JOINT.

IX. CHALKEY CONCRETIONS IN AND AROUND JOINTS.

X. ANCHYLOSIS.
Definition. Classification.—1. Partial or local. 2. General or universal. 1. True or complete. 2. False or incomplete. 1. Extra capsular. 2. Intra capsular. 3. Capsular. Causes.—Most of the causes operate by keeping the parts motionless, or nearly so, for a length of time. For example: diseases of various kinds, tumours, fractures, dislocations, simple rest, cicatrices, injuries of tendons and muscles, paralysis of one set of muscles, contraction of fascia, &c. others operate under all circumstances, as old age, chronic rheumatism or gout. Sometimes it is a protective effort of nature, as seen in curvatures of the spine, anchylosis of diseased joints, &c.
SPRAINS.

Sixth Head.

Definition.
Causes.
Symptoms.
Diagnosis.

Liability.—Ginglymoid joints are more frequently thus affected than the orbicular. Why?

Symptoms.—Depend on the variety of anchylosis.

Diagnosis.—Cannot be confounded with any other affection. There is often much difficulty, however, in distinguishing one form from another.

Prognosis.—Varies with the character of the lesion—the nature of its cause—the duration of the case—the age and health of the patient—the joint involved, &c.

Dissection.—Varies with the kind of anchylosis.

Treatment.—In true anchylosis we can only relieve the patient by establishing a false joint, or straightening the limb by cutting out a plug of bone, as performed by Dr. J. R. Barton. Never excise the joint, nor amputate the limb, as advised by some; nor should we attempt Louvriër's operation.

In false anchylosis, the treatment is modified by the cause of stiffness.

The agents usually employed are passive motion, frictions, electricity, galvanism, vapour bath, the screw, division of tendons, fascia and muscles, excision of cicatrices, and some contrivance to take the place of paralysed muscles, as advised by Sir C. Bell. The comparative merit and dangers of these means explained.

Fourth Head.

MALIGNANT DISEASES.

The joints are liable to be attacked with malignant diseases of various kinds, but especially with malignant exostosis, medullary sarcoma, and fungus hematodes. For the characteristics of these diseases, as well as their treatment, see chapter on "Tumours."

Fifth Head.

WOUNDS OF JOINTS.

Division.
Causes.
Symptoms.—Vary with the character of the wound.

Diagnosis.—Generally, there is no difficulty in deciding upon the character of the wound at once. Punctured wounds may be confounded with wounds of the bursae mucosae.

Prognosis.—Varies on the joint injured, the character of the wound, the age and health of the patient, the season of the year, and the possibility of obtaining the proper remedies.

Dangers.—Inflammation, tetanus, caries, and necrosis.

Dissection.—The appearances on dissection depend upon the stage of the disease at which the examination is made.

Treatment.—Divided into—1. Constitutional. 2. Local. The remedies must be modified to suit the peculiarities of the case.

Sixth Head.

SPRAINS.

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Results or effects of the injury.
Treatment.

Seventh Head.

DISLOCATIONS.

Definition.
Causes.—1. Predisposing or remote. 2. Proximate or efficient. The first class may be subdivided into the local and general.

1. The local predisposing causes are—
   a. Preternatural length of the ligaments of a joint, (see Stanley.)
   b. Peculiar congenital conformation of the joint.
   c. The form of the joint.
   d. Paralysis of the muscles around the joint.
   e. Diseases of the constituent tissues of a joint.
   f. Hydrops articular.
   g. Tumours or earthy deposits in or about the joints.
   h. Interstitial change in the articulating surfaces.

The general predisposing causes are—
   a. Preternatural laxity of the entire ligamentous system, (see Delpech.)
   b. The age. Dislocations are rare in the very young or very old.

2. Local or external causes.
   a. External violence.
   b. Muscular action.

Joints most liable to luxation.—The ball and socket joints, from the character of their articulating surfaces; the weakness of their ligaments; and their subjection to the influence of a larger number of muscles, are more frequently dislocated than the ginglymoid.

Classification of dislocations.—The first division is based upon the definite position of the head of the bone. Thus we have—
   a. Primitive luxation.
   b. Consecutive luxation.

The second division is based upon the degree of displacement. Thus we have—
   a. Complete luxation.
   b. Incomplete luxation, or sub-luxation.

The third division is based upon the duration of the accident. Thus we have—
   a. Recent luxation.
   b. Old luxation.

The fourth division is based upon the degree of injury inflicted upon the adjacent soft parts or the bones themselves. Thus we have—
   a. Simple luxation.
   b. Compound luxation.
   c. Complicated luxation.

Symptoms of luxation. 1. Rational or Physiological. 2. Sensible or physical.
First, or rational.
   a. Pain.
   b. Numbness, or paralysis in limb.
   c. Loss of motion.
   d. Constitutional disturbance.
Second, or physical.
a. Change in the form of the entire limb.
b. Change in the natural length of the limb.
c. Unnatural rigidity of the limb.
d. The disappearance or preternatural enlargement of the natural prominences of the joint.
e. The appearance of unnatural cavities about the joint.
f. The appearance of a tumour (formed by the head of the bone) in the vicinity of the joint.

Diagnosis. Dislocations may be confounded with—
1st. Fractures.
2d. Sprains.
3d. Bent bones.

Prognosis.—Depends on a variety of circumstances. It is modified, for example, by
a. The joint involved.
b. The degree of displacement.
c. The duration of the injury.
d. The degree of injury sustained by the soft parts or bone.
e. The constitution of the patient.
f. The direction taken by the head of the bone.

Dissection.—Appearances depend on the duration of the injury, and the tissues upon which the head of the bone rests.—State the usual appearance in recent and old luxations.

Treatment.—General indications.
1. The general condition of the patient demands our first attention, and before we attempt to relieve the injury he must be placed in as comfortable a position as possible, his fears calmed, and reaction to a certain degree established. It is sometimes well to deviate from the last direction, for should the patient faint from pain merely, his muscles are in the most favorable condition for our attempts at reduction.
2. As there is always displacement, "reduction" will be required. This may be accomplished, in many cases, by the employment of mechanical means alone, but often constitutional agents are required.

The mechanical means are—
a. Extension.
b. Counter extension.
c. Change in the position of the different bones.—To accomplish these objects we employ the hands of assistants, bands, rollers, the pulleys, and various apparatus for overcoming muscular resistance.—The forces must be applied steadily and slowly, they must also be equal, and generally in the line of displacement.—Muscular resistance is often overcome by directing the patient's mind from the set of muscles concerned in the accident.—We must also select the part upon which our extending and counter extending bands are to be placed.—Difference among surgeons on this point.—The obstacles to reduction by mechanical means alone are—
1. Muscular contraction.
2. The degree of laceration of the soft parts.
3. The shape of the joint.
4. The locking of the bones.
5. The existence of adhesions.
6. The interposition of tendons or ligaments.

The constitutional remedies employed, are intended chiefly to produce prostration, so that all muscular resistance is destroyed: and the most efficient are—

a. Bloodletting.
b. Hot bath.
c. Tart. Antim. et Potassw.
d. Fumes of tobacco, or injections of its infusion.
f. Intoxication.

Value of Myodiatomy in difficult cases discussed.—Also the propriety of attempting the reduction of old luxations considered.

3. From the partial paralysis of the muscles, and laceration of the ligaments, it is essential to apply some mechanical means to prevent the recurrence of the luxation.—The usual dressings for fractures of the same bones may be employed, for a week or two after the reduction of the accident.

4. As inflammatory symptoms may supervene, measures must be taken to prevent their occurrence, and should they occur in spite of our efforts to the contrary, the antiphlogistic system in all its details must be employed.

6. For the rigidity, which in almost every case, is the result of the dislocation, the remedies already mentioned as applicable to the same difficulty coming on after fractures, may be had recourse to.

6. When complicated with fracture, always recollect to dress both injuries before you leave the patient, and also to adopt the plan of treatment already indicated under the head of fractures.

**COMPUND AND COMPLICATED LUXATIONS.**

After the reduction of the bones, the treatment in these injuries is identical with that advised in cases of compound and complicated fractures.—It is, therefore, needless to repeat it here.—The remarks relative to the dangers, and question of amputation, in the latter class of accidents, apply very well to the former.

---

**PARTICULAR LUXATIONS.**

**I. INFERIOR MAXILLARY.**

Anatomy of the joint.

Liability.—This accident is common.

Causes.—1. Predisposing.—2. Proximate.

(1.) Age, sex, and preternatural elongation of the processus vaginalis.

(2.) Muscular contraction, and force directly applied.

Symptoms. Much pain, instant displacement.

Diagnosis.

Prognosis.

Dissection.

Treatment.

**II. SUB-LUXATION OF THE LOWER JAW.**

Definition.

Causes.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

I. STERNAL EXTREMITY FORWARDS.

II. STERNAL EXTREMITY BACKWARDS.

III. OS HYOIDES.

Liability.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

Anatomy of the articulations.

IV. RIBS.

Anatomy of the articulations.

Liability.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

V. STERNUM.

VI. CLAVICLE.

Anatomy of its articulations.

Liability.—May be luxated at either extremity. The scapular is most frequently displaced.

Direction of Displacement.—The sternal extremity may be displaced in three directions: forwards, backwards, and upwards. The scapular is usually thrown upwards or downwards beneath the acromion process.

I. STERNAL EXTREMITY FORWARDS.

II. STERNAL EXTREMITY BACKWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.
III. STERNAL EXTREMITY UPWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

IV. SCAPULAR EXTREMITY UPWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

V. SCAPULAR EXTREMITY DOWNWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

VII. LUXATION OF THE INFERIOR ANGLE OF THE SCAPULA.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

VIII. LUXATION OF THE HEAD OF THE HUMERUS.

Anatomy of the articulation.
Liability.—Very great, from the small size of the articulating surfaces; the weakness of its ligaments; the freedom of its motions; its constant exposure; and from its subjection to the influence of several muscles.

Direction of Displacement.—Downwards, forwards, backwards, and partially upwards and forwards. Displacement directly upwards, to any extent, cannot occur without fracture of the acromion. Explain the intercostal and thoracic luxations mentioned by Larrey and Percy.

I. DOWNWARD LUXATION.

Causes.
Symptoms.
Diagnosis.—May be confounded with fracture of cervix scapula, fracture of the neck of the humerus, bruises, paralysis of the muscles, and dislocation of the biceps tendon.
Prognosis.
Dissection.
Complications.—Great swelling; emphysem; inflammation; paralysis of muscles.
Treatment.—General indications.
a. Fix the scapula.
b. Relax the muscles.
c. Draw the head of the bone to its cavity.

General methods.
a. Simple elevation of the arm.
b. Lifting the head of the bone while the arm is abducted.
c. Mothe's plan, or rather Mr. White's.
d. Extension, with heel in the axilla.
e. Pulleys and bands.
f. Reducing apparatus of different kinds.
g. Myodiatomy.

It may be necessary to use constitutional remedies in combination with either of these plans.

II. FORWARD LUXATION.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Complications.

Treatment.—Reduce to the first, and then employ the measures already indicated.

III. BACKWARD LUXATION.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Complications.

Treatment.—Reduce to the first, and then employ the measures already pointed out as efficient in the reduction of the former.

IV. PARTIAL, OR SUBLUXATION.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.

Treatment.

V. DISLOCATION OF THE BICEPS TENDON.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.

Treatment.

IX. LUXATION AT THE ELBOW-JOINT.

Anatomy of the joint
Liability.

Direction of displacement.—Backwards and upwards of both bones; later-

al of both bones; forwards of both bones; forwards of the head of the radius; backwards of the head of the radius; imperfect luxation of the head of the radius; upwards of the superior extremity of the ulna.

I. BACKWARDS AND UPWARDS OF BOTH BONES.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

II. LATERAL DISPLACEMENT.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

III. FORWARD DISPLACEMENT.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

IV. FORWARDS OF THE HEAD OF THE RADIUS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

V. BACKWARDS OF THE HEAD OF THE RADIUS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

VI. IMPERFECT LUXATION OF THE HEAD OF THE RADIUS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

VII. LUXATION OF THE SUPERIOR EXTREMITY OF THE ULNA.

Causes.
X. LUXATION OF THE WRIST.

Anatomy of joint.
Liability.
Direction of displacement.—Backwards, forwards, and laterally.

I. BACKWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

II. FORWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

III. LATERAL.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

IV. LUXATION OF THE LOWER EXTREMITY OF THE ULNA.

Causes.
Varieties.—Backwards and forwards.
Symptoms of each.
Diagnosis.
Prognosis.
Dissection.
Treatment.

XI. LUXATION OF CARPAL BONES.

Anatomy of joint.
Liability.
Direction of displacement.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.
XII. LUXATION OF METACARPAL BONES.

Anatomy of these joints.
Liability.—The first is usually the only one displaced
Direction of displacement.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

XIII. LUXATION OF PHALANGES.

Anatomy of these joints.
Liability.—All may be luxated, but usually the first of the thumb is most liable.
Direction of displacement.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.—Difficulties to be overcome are, 1. Shape of the bones. 2. Binding of ligaments. 3. Interposition of anterior ligaments. (Vidal and Pailleux.) 4. Interposition of sesamoid bones. (Lawrie.) 5. Want of leverage. Manner of overcoming these difficulties explained.

XIV. LUXATION OF THE SACRUM.

Anatomy of joint.
Liability.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

XV. LUXATION OF THE OSSA INNOMINATA.

Liability.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

XVI. RELAXATION OF THE PELVIC SYMPHYES.

Liability.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.
In the Form of

14 The Body is extended on the Pelvis The Limb is then drawn a little to the side and

Treat the same as the last case to the extent of 3

Forwards. (See above.)

Treat 15 as in the direction of the force to suit the case.
XVII. LUXATION OF THE FEMUR.

Importance.
Anatomy of the joint.
Liability.

Direction of displacement.—The head of the bone may be displaced upwards in three directions, and downwards in three directions, viz.: upwards and backwards upon the dorsum ili; upwards and forwards upon the osa pubis; directly upwards; downwards, and backwards in the upper ischiatic notch; downwards and forwards into the foramen ovale; directly downwards.

I. UPWARDS AND BACKWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.

Treatment.—General indications.
a. Fix the pelvis.
b. Draw the head of the bone towards its cavity.
c. Make use of the different muscles to assist in the reduction.
d. Employ constitutional remedies to relax the muscles.

General methods.
a. Bands and pulleys.
b. Apparatus.

II. UPWARDS AND FORWARDS ON THE OSSA PUBLIS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.

Treatment.—General indications are the same as in the first variety. The general methods are also the same, but we must vary the direction of our forces.

III. DIRECTLY UPWARDS. (VERY RARE.)

Treatment.—The same indications to be observed as above, but vary the direction of the forces to suit the case.

IV. BACKWARDS AND SLIGHTLY DOWNWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.

Treatment.—General indications the same as above, but the direction of the forces must be varied.
V. FORWARDS AND DOWNWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.—General indications still the same, but the process must be varied.

VI. DIRECTLY DOWNWARDS. (VERY RARE.)

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.—General indications still the same, but we must modify our forces to suit the case.

VIII. LUXATIONS OF KNEE.

Importance
Anatomy of the joint.
Liability.
Direction of displacement.—To render these luxations more clear to the student it will be well to consider those of each constituent of the joint, and first of those of the

PATELLA.

Causes of each.
Symptoms in each.
Diagnosis.
Prognosis.
Dissection.
Treatment.

II. LUXATION OF THE HEAD OF THE TIBIA.

Causes.
Symptoms of each.
Diagnosis.
Prognosis.
Dissection.
Treatment.

III. INTERNAL DERANGEMENT OF KNEE JOINT

Definition.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Treatment.
IV. SUBLUXATION FROM LENGTH OF LIGAMENTS.

Causes.—Congenital or acquired.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

V. LUXATION OF THE HEAD OF THE FIBULA.

Varieties.
Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

XVII. LUXATION OF KNEE.

Importance.
Anatomy of the joint.
Liability.
Direction of displacement.—Inwards; Outwards; Forwards; Backwards.

I. INWARDS.

Causes.
Complications.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

II. OUTWARDS.

Causes.
Complications.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

III. FORWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.

IV. BACKWARDS.

Causes.
Symptoms.
Diagnosis.
Prognosis.
Dissection.
Treatment.
XX. LUXATION OF THE TARSAL BONES.

I. ASTERIGUS.

Causes, Symptoms, Diagnosis, Prognosis, Dissection, Treatment.

II. THE CUNEIFORM, ETC.

Causes, Symptoms, Diagnosis, Prognosis, Dissection, Treatment.

XXI. LUXATION OF THE METATARSAL BONES.

Causes, Symptoms, Diagnosis, Prognosis, Dissection, Treatment.

XXII. LUXATION OF THE PHALANGES.

Causes, Symptoms, Diagnosis, Prognosis, Dissection, Treatment.

Eighth Head.

CONGENITAL LUXATION.

Definition, Varieties, Causes, Symptoms, Diagnosis, Prognosis, Treatment.

ERRATUM.—Under the classification of Diseases of the Joints, diseases of the Bursae have been introduced by mistake at the ninth head.

SYLLABUS OF LECTURES.

PART III.

II. DISEASES OF THE FIBROUS SYSTEM.

Some of the affections of this system have been included under the divisions of the joints; for example, Desmoids, and Desmotomies; others belong more particularly to the practice of medicine than to surgery, as rhizomata.

The diseases usually considered as strictly surgical are—

I. PERIODONTITIS.

Definition, Varieties—1. Acute. 2. Chronic.
Prognosis—1. Local. 2. Constitutional.
Treatment—1. Nervous. 2. Constitutional.
Dissection of inflammation from adjacent organs in the vicinity.
Remedy=—May be continued with calamine, tarax, arsenic, phosphorus, etc.