Geo. Barton.
A. C. U.

Blood = 1/13 of weight of Body.

Corpuscles

Red
- Shape = Circular - biconcave disks.
- Origin red marrow of bone
- Comp: water 50% or over; Haemoglobin %; Mineral maters.
- Function carry oxygen

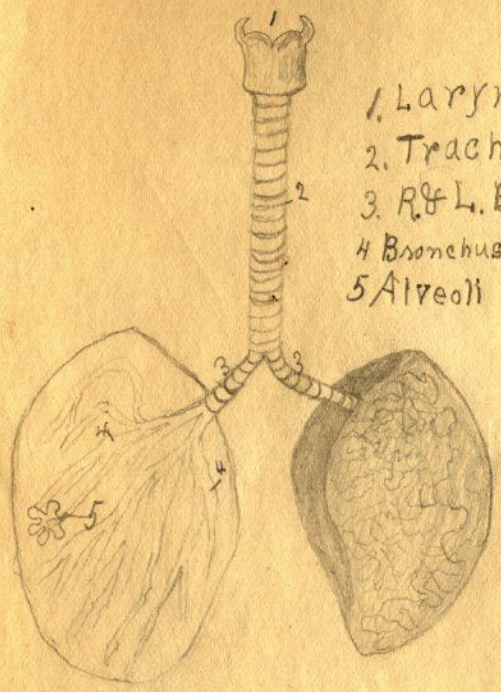
White
- Shape = irregular
- Size = large than a red and not only 1 to 30 red.
- Origin = in lymph glands.
- Function = destroys foreign substances.

Plasma

Serum
- Proteids
- oly and fatty maters
- Sugar and common Salt
- carbonate of soda
- And wast mater from various tissues.

Use = Coagulates the blood.

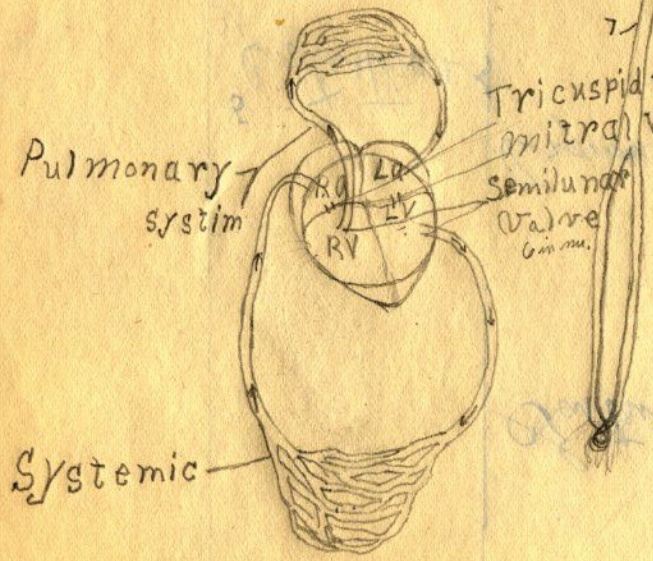
Fiberin

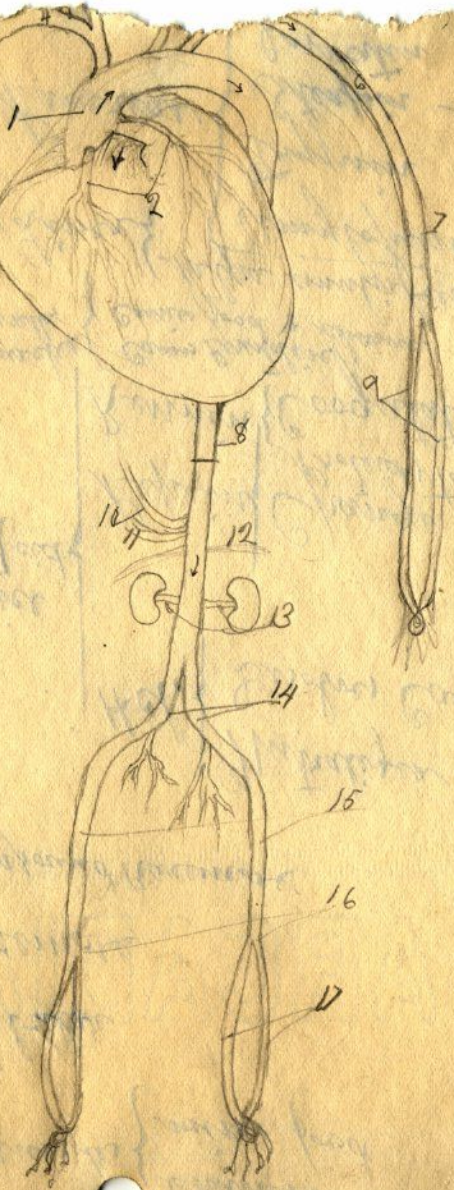


1. Laryna
2. Trachea
3. R & L. Bronchus
4 Bronchus tubes
5 Alveoli

Ciliated cell
Called Cilia

Circulatory Organs





1. Aorta
2. Coronary Arteries
3. Common carotid
4. Subclavian
5. Vertebral Artery
6. Axillary "
7. Brachial "
8. Thoracic "
9. Radial & Ulna
10. Abdominal
11. Coeliac Axis [Arteries
12. Upper & Lower mesenteric
13. Renal Arteries
14. Common Iliac Arteries
15. Femoral "
16. Popliteal Artery
17. Peroneal & tibial

4 Stomach
- Organs Muscles — churns & mixes food
- Glands
  - Tubular
  - Racemose
  - Compound Racemose
- Gastric Juice
  - Acid
    - HCl. — Neutralizes Alkile; Dissolves Carbonate of Ph & off lime.
  - Pepsin — Changes Proteids to Peptones
  - Rennin — Coagulates Milk

11

5 Intestines
- Organs (muscles & walls) — Causes Peristaltic Carries food & churns.
- Glands
  - Liver — helps emulsifies fat.
  - Pancreas
    - Amylopsin — Starch to Dxyle
    - Trypsin — Proteids to peptone
    - Steapsin — Brakes down fat
    - Invertin — changes Sugar

(All chiefly brakes down fat.)

Digestion

1 Prehension — Lips, Teeth

2 Mastication — Organs: Teeth, Tongue, cheeks, lips

Glands — Kinds Saliva: Parotid, Sublingual, Submaxilary

Secretion - Saliva (alkale) — moistens food; Dissolves Salt & Sugar; Ptyalin = Starch to Sugar

3 Deglutition — Tongue, Fauces, Soft Palate, Epiglottis, Pharynx, Oesophagues

Al. Canal

- 4 Stomach
  - Opening
    - Cardiac Orifice
    - Pyloric Orifice
  - Glands
    - Gastric glands
- Intestines
  - Small
    - Duodenum
    - Jejunum
    - Ileum
  - Ileo caecal Valve, where the two meet
  - Large
    - Caecum
    - Colon
      - Ascending Colon
      - Transverse "
      - descending "
    - Rectum

The Alimentary Canal

1 Mouth
- Lips, cheeks, Tongue
  - Circumvallate — papillae
  - Fungiform — "
  - Filiform — "
- Palate
  - Hard &
  - Soft
- Teeth
  - Sects
    - Milk (20) 2 In, 1 C, 2 Mo.
    - Permt (32) 2 In, 1 C 2 Bi, 3 Mo.
  - Structure
    - ext
      - crown
      - neck
      - Fang
    - Inner
      - Pulp cavity
      - Dentine
      - Enamel
      - Cement
- Pillar of Fauces
- Glands
  - Parotid
  - Sublingual
  - Submaxillary

2 Pharynx or throat cavity

3 Oesophagus or gullet.

Atwaters Standard Diet

Proteids	Fat	Carbohydrates
4.5 oz.	4. oz.	17.5 oz.

Pro. in cheese Cheese.
4.5 ÷ 31% = 14.5 oz required to furnish one man a day.

Pro.	Fat	Carb.
4.5	4.	17.5

Peas to furnish Carbohydrates

Carb in peas
17.5 ÷ 55% = 24.5 oz required to furnish one man a day.

Good butter to furnish fat.

fat in butter
4. ÷ 80% = 4.9 oz. required to furnish one man a day.

Lean meat to furnish Proteids

Prg in lean meat
4.5 ÷ 20% = 2 a day.

- The appendicular skeleton
  - The pectoral Girdle
    - Clavicle 1
    - Scapula 1
    - Upper limbs
      - Humerus 1
      - Radius 1
      - Ulna 1
      - Carpal 8
      - Metacarpals
      - Phalanges 14
  - The pelvic Girdle
    - Os innominatum 2
    - Lower limbs
      - Femur 1
      - Tibia 1
      - Fibula 1
      - Patella 1
      - Tarsal 7
      - Metatarsal 5
      - Phalanges 14

- The bony skeleton
  - Axial skeleton
    - The skull
      - Cranum
        - Occipital 1
        - Frontal 1
        - Parietal 2
        - Temporal 2
        - Sphenoid 1
        - Ethmoid 1
      - Face
        - Mandible 1
        - Vomer 1
        - Maxillae 2
        - palate 2
        - Molar 2
        - Nosal 2
        - Lachrymal 2
        - Inferior turbinate
    - Vitebral Column many separate bones
    - Hyoid
    - Sternum
    - Ribs
  - The Appendicular skeleton
    - The pectoral arch or Girdle
    - The pelvic arch or Girdle

Chemical Composition of the body.

- **Inorganic**
  - H_2O
  - Na_2Cl_2
  - Phosphates &
  - Carbonate of lime.
  - Hydrochloric Acid.
- **Organic.** burn off dry
  - Albumenus
    - Serum Alb.
    - Fibrin
    - Myosin
    - Casein
  - Fat
    - Palmitine
    - Stearin
    - Olein
  - Carbohydrates
    - Glycogen
    - Glucose
    - Lactose

Zoology.

Physiology:- Treats of the properties & action of the body of the use or function of its parts, and of the manner of their workings.

Anatomy - treats of the form and structure of the parts of the body and deals with organs and parts of organs.

Histology - treats of the minute structure of the parts of the body deals with cells & tissues.

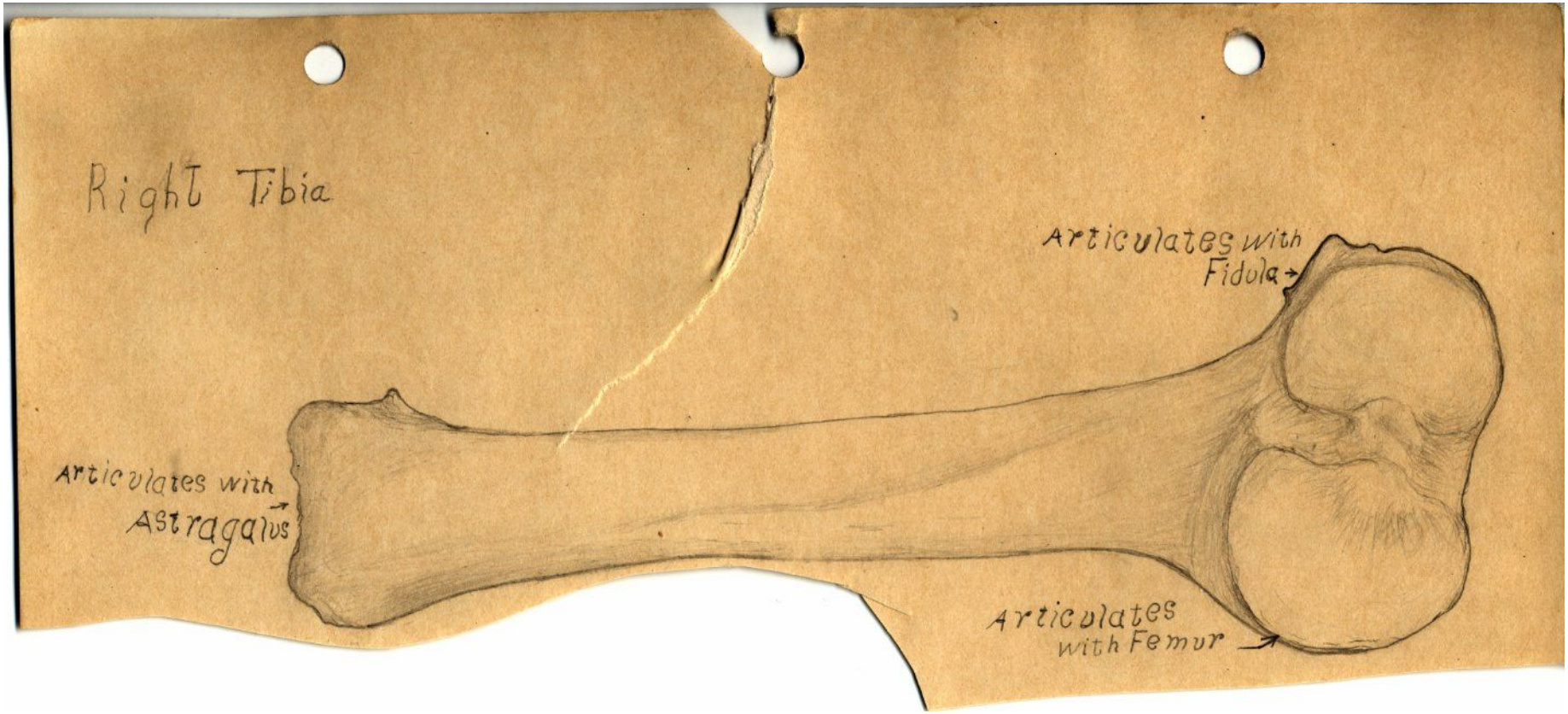
Hygiene - treats of the body in health and of the condition which promotes health.

Cell. A cell is a mass of protoplasm containing nucleus.

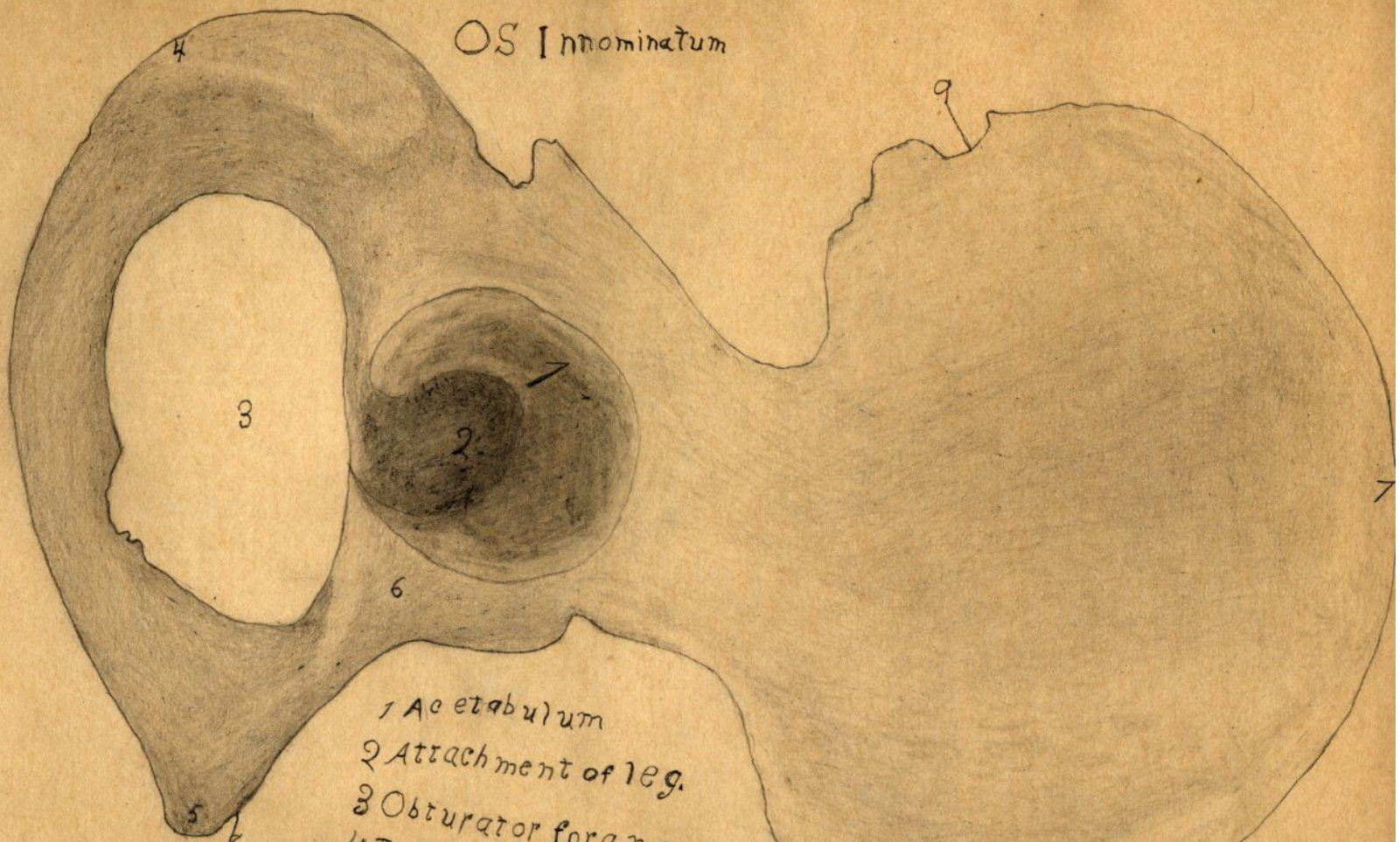
Cells make tissues, tissues make organs. Organs make body.

Man is a vertebrate animal, because his body presents dorsal and ventral cavities seperated from one another by a hard partition, the back bone.

Man belongs to that subdivision of vertebrates known as Mammalia (1) because his body is covered by hair (2) because of the presence of mammary glands (3) because the ventral cavity is completely separated by the diaphragm into thorax and abdomen.


Right Tibia
Articulates with Fidula
Articulates with Astragalus
Articulates with Femur

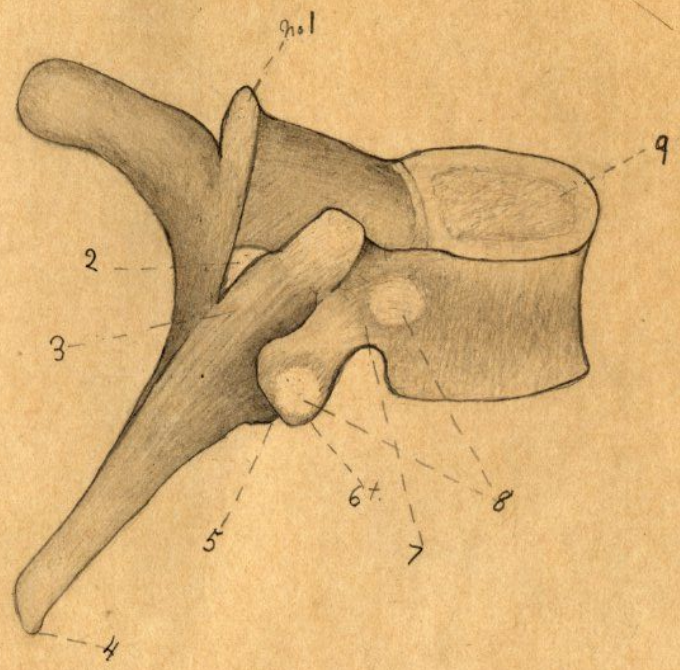
OS Innominatum



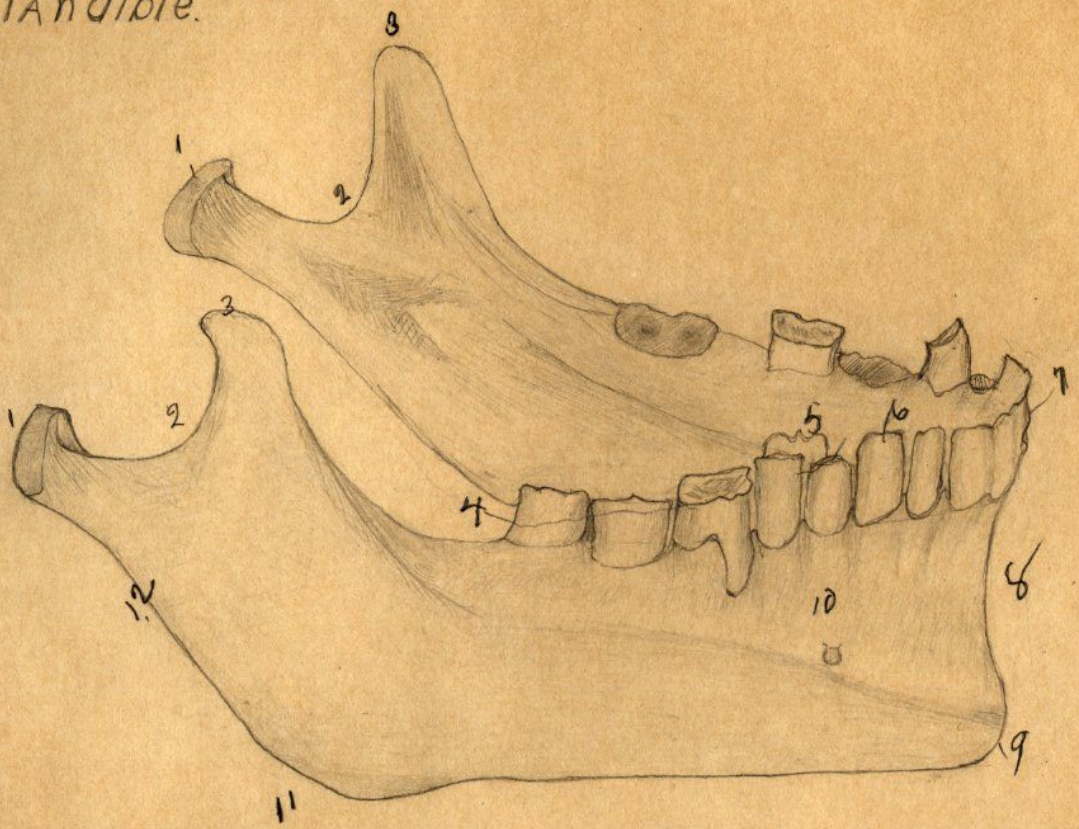
1 Acetabulum
2 Attachment of leg.
3 Obturator foramen
4 Tuberosity of Ischum
5 Angle of Pubes
6 Body of Pubes
7 Crest of Ilium
8. Arti[illegible]

Fifth Dorsal vetebra

no1 Ant Articular Process
2 Neural Canal
3 Neural Arch
4 Spinous Process
5 Postiror Art process
6 Transverse Process
7 Stalk or pedicle
8 Rib Articulations
9 Centrum or body

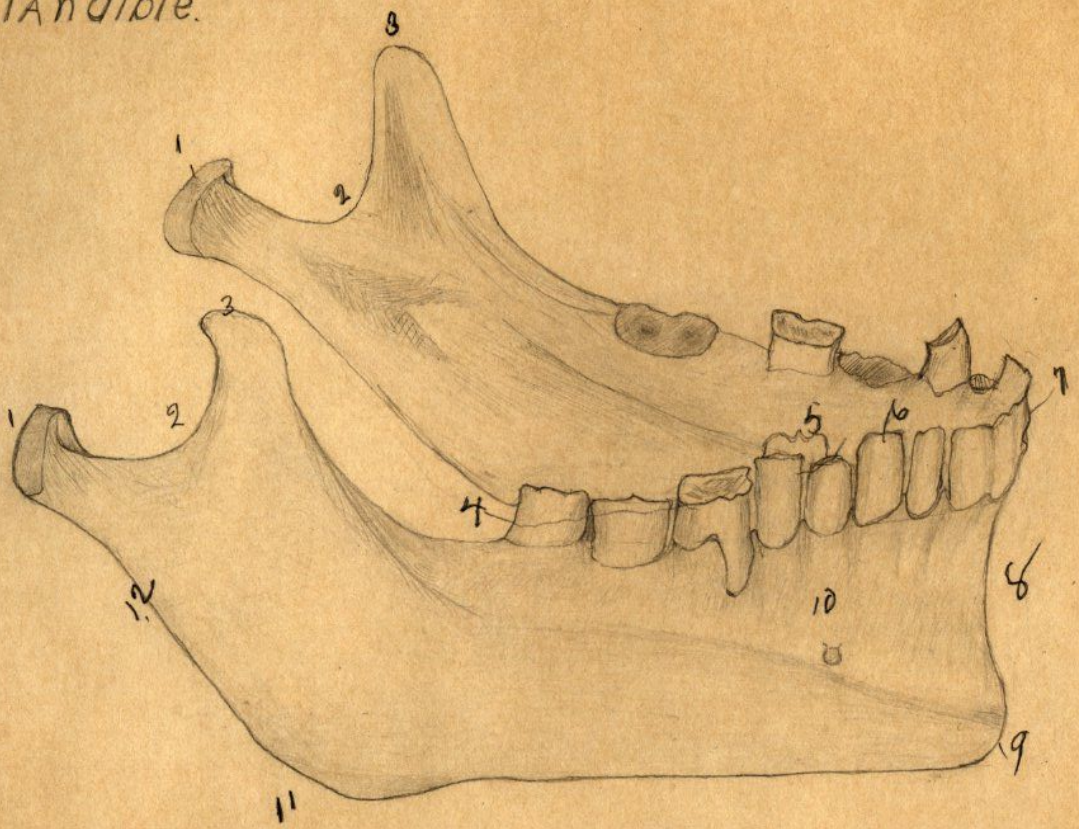


Mandible.



1. Condylee
2. Sigmoid process
3. Coronoid
4. Molars
5. Bicusped
6. Canine
7. Incisor
8. Symphysis
9. Mental process
10. Body
11. Angle

Mandible.



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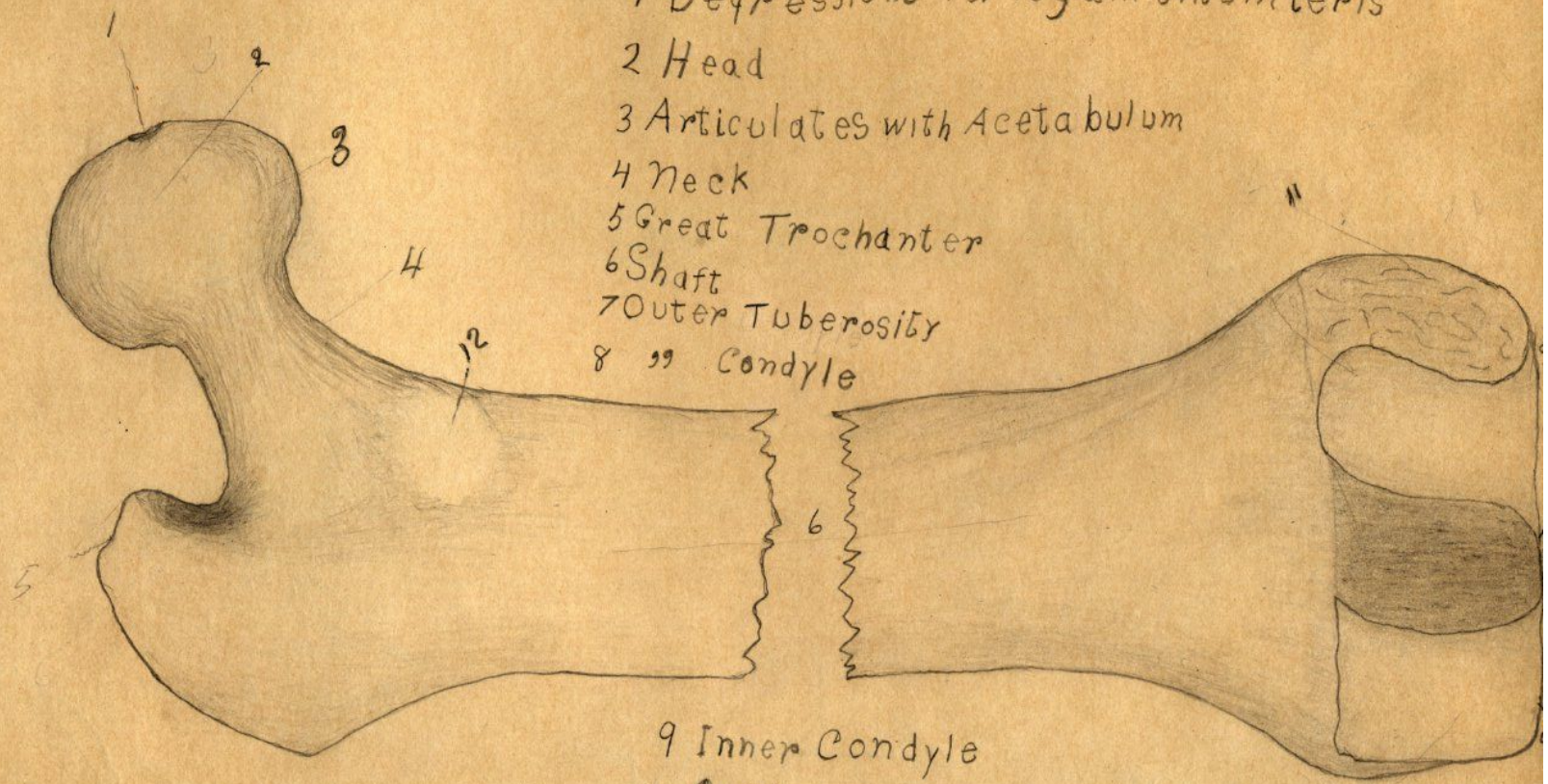
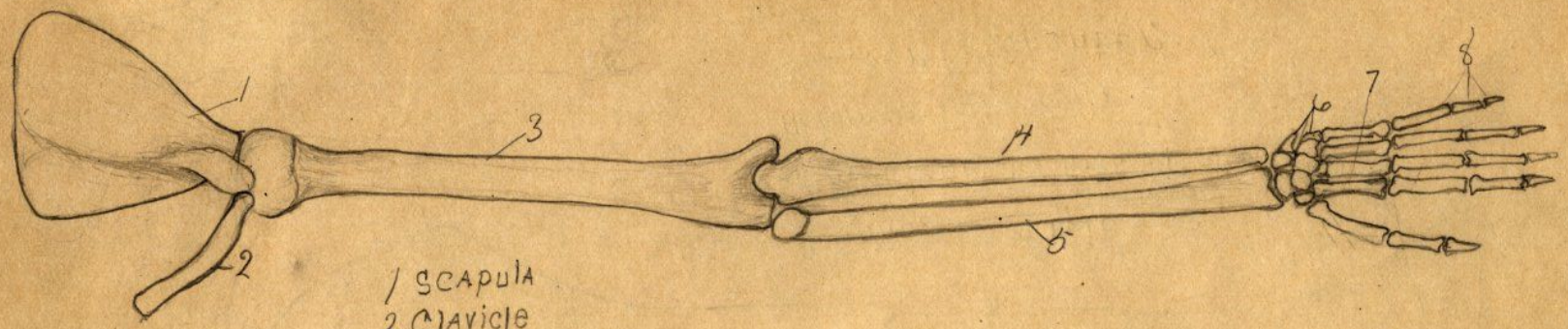
Femur



1 Depressions For ligamentum teres
2 Head
3 Articulates with Acetabulum
4 Neck
5 Great Trochanter
6 Shaft
7 Outer Tuberosity
8 " Condyle

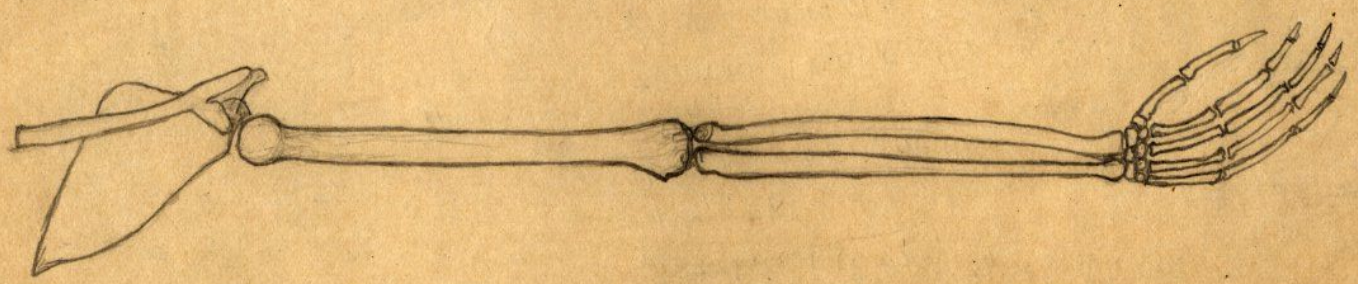
9 Inner Condyle
10 Articulates with Patella
11 Inner Tuberosity
12 Lesser Trochanter

MAN

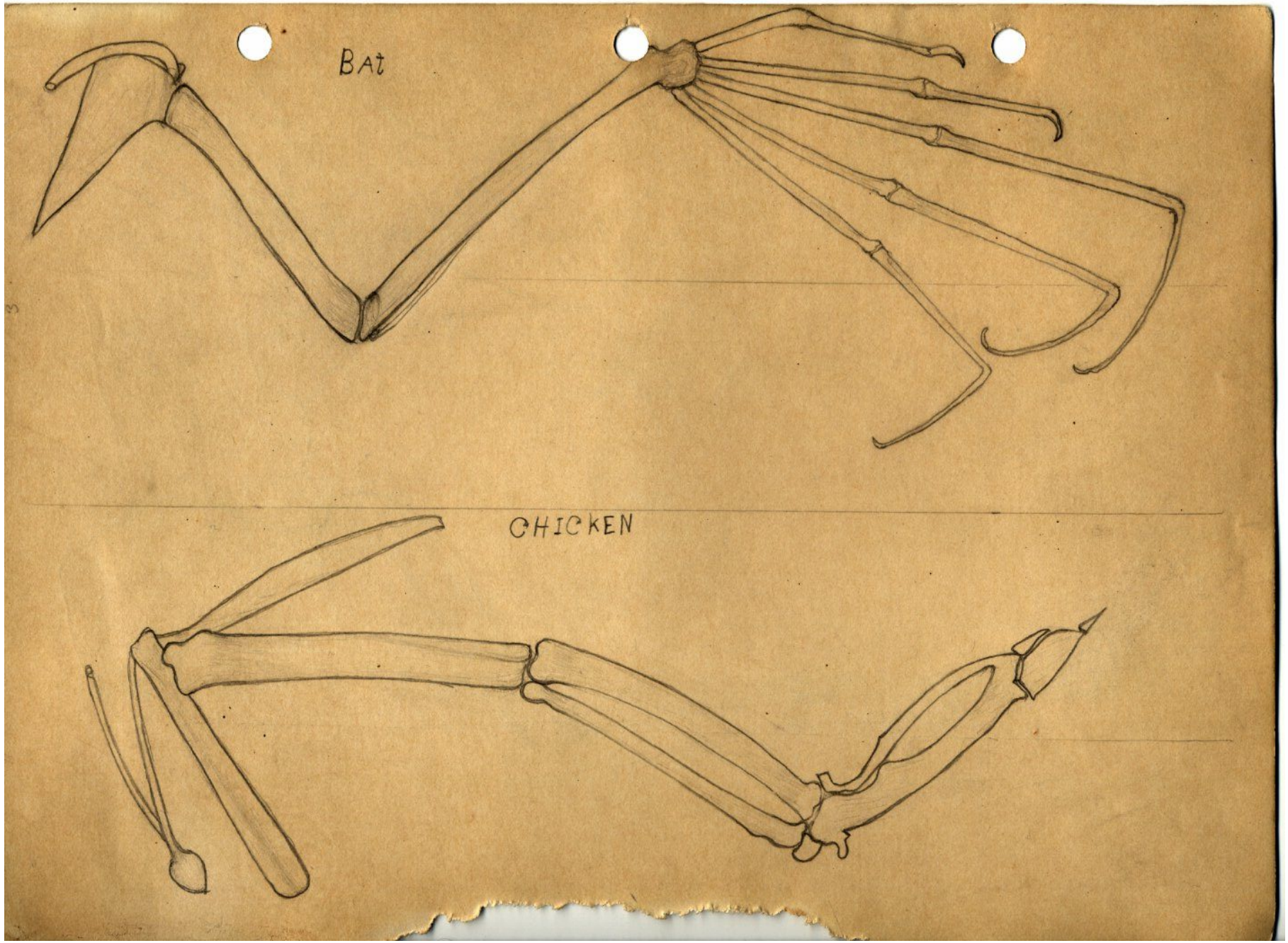


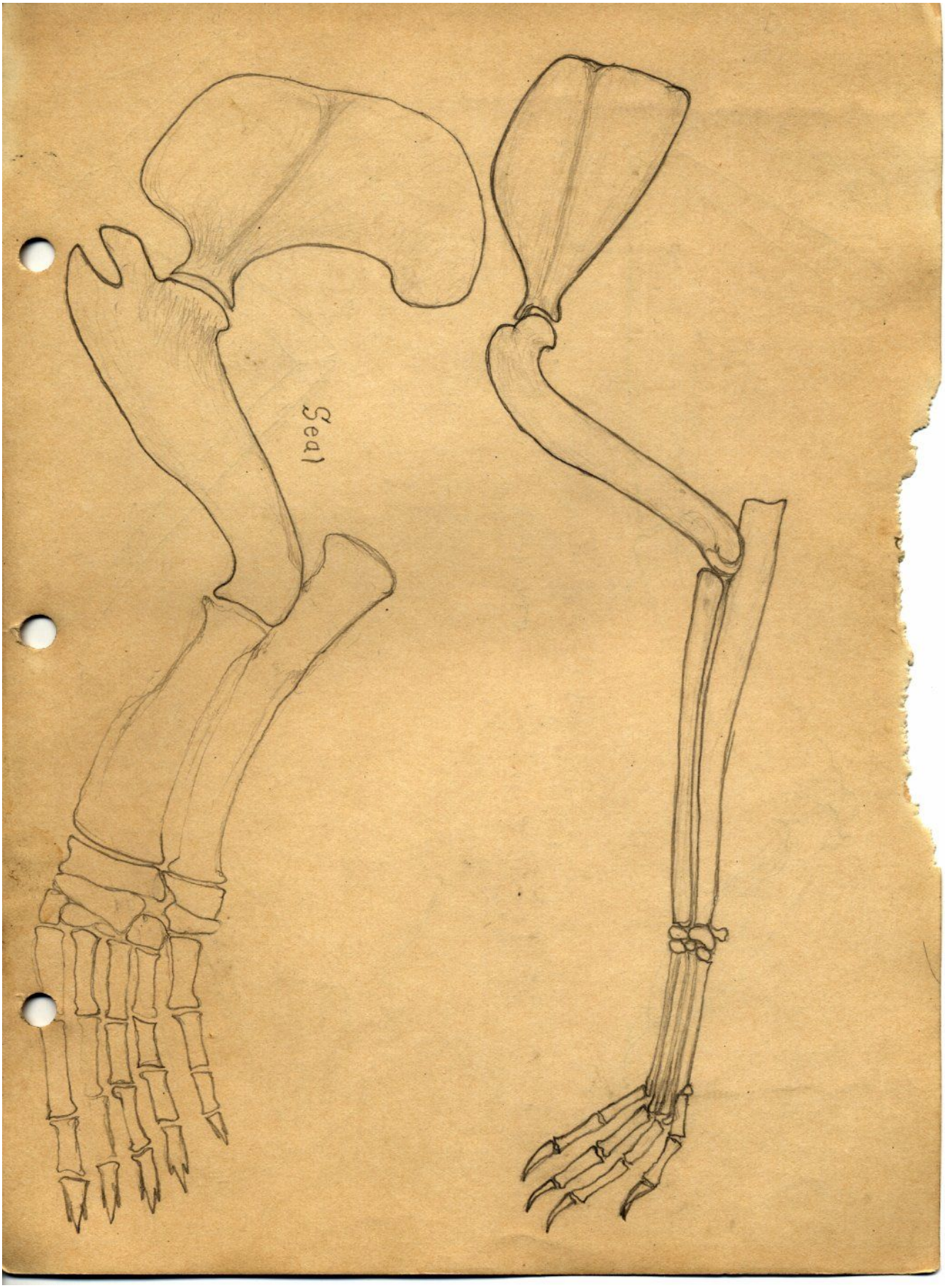
1 Scapula
2 Clavicle
3 Humerus
4 Ulna
5 Radius
6 CARPAL
7 Metacarpal
8 Phalanges

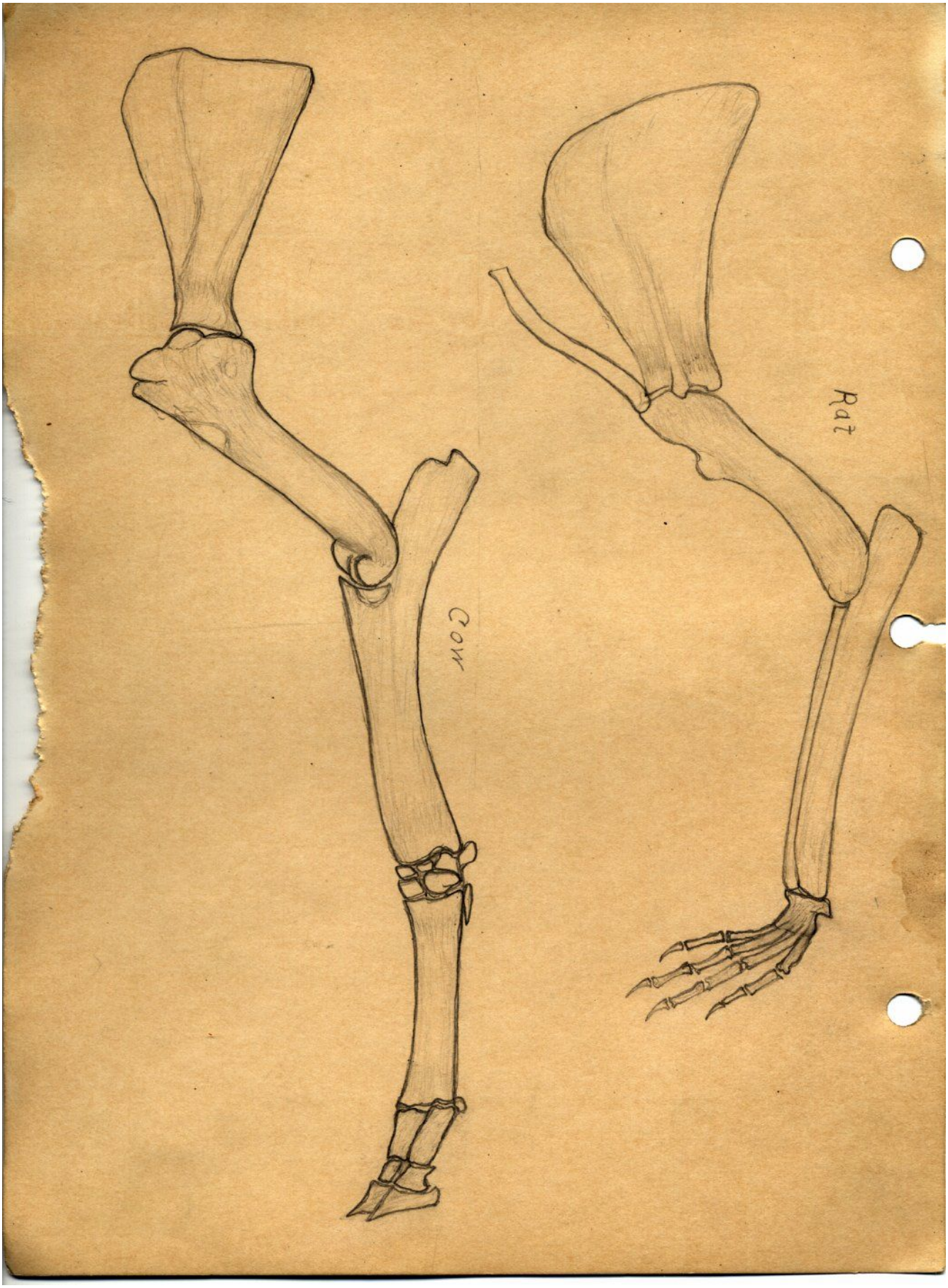
MONKEY

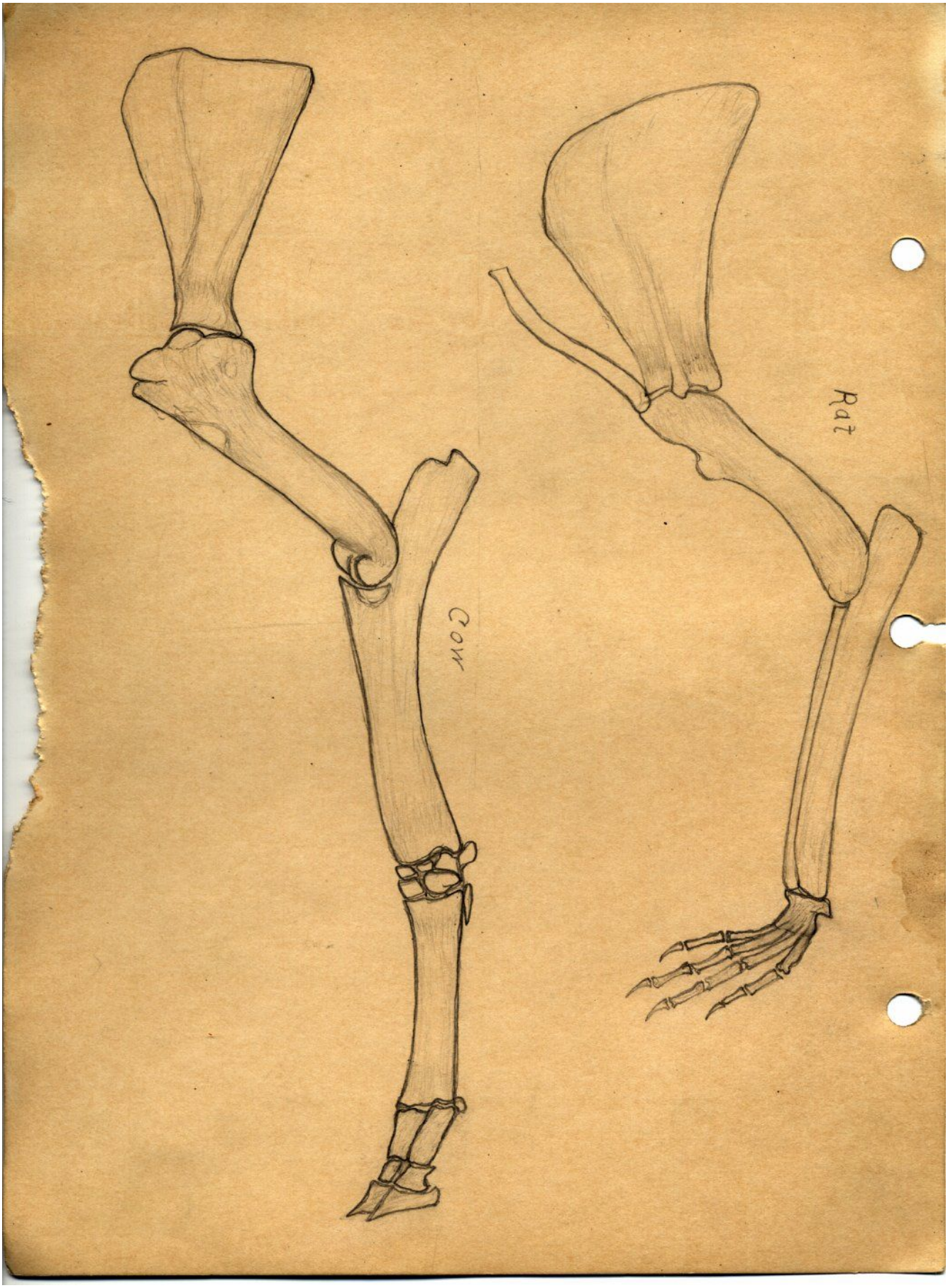


Thursday 2


Bat
CHICKEN

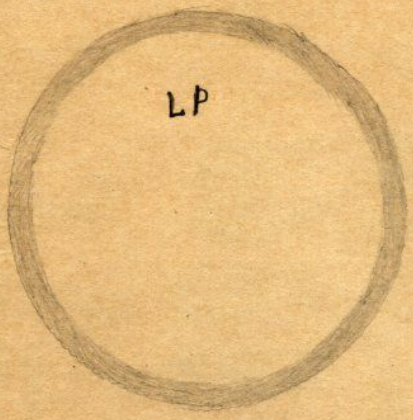

Seal

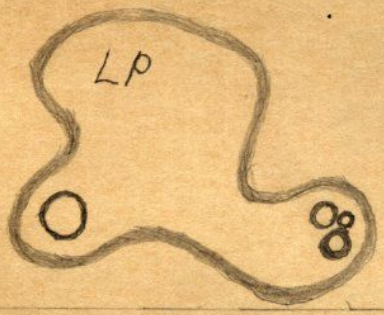

Cow
Rat


Cow
Rat

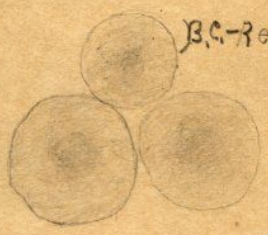
Air bubbles

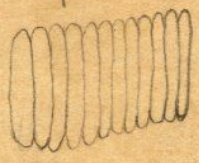
L.P.





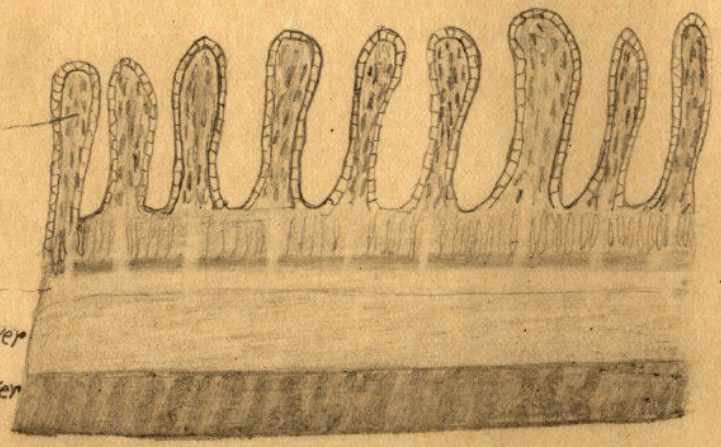
Blood carpuscles





Sec. of Small Intestine of wildcat

L.P.



Villia

Lacteal

Submcous layer

mucous layer

HP

Sec. of STomach

Portoin of mucus

L.P

mucous coat

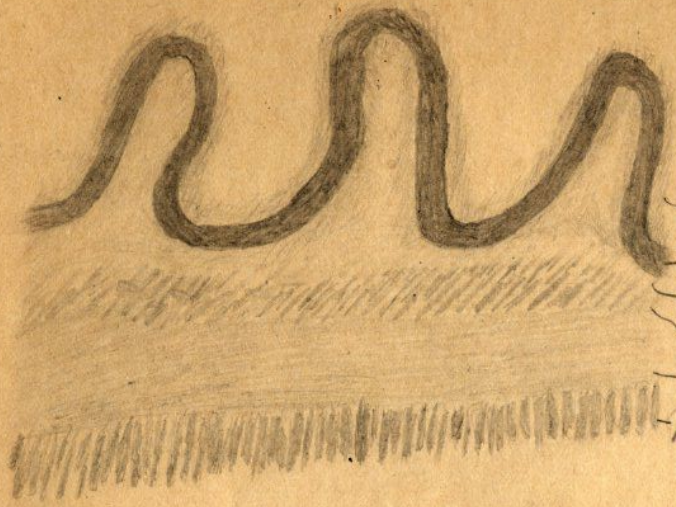
sub. muc.

muscular coat

L.P.

Sec. of Oesophagus

L.P.

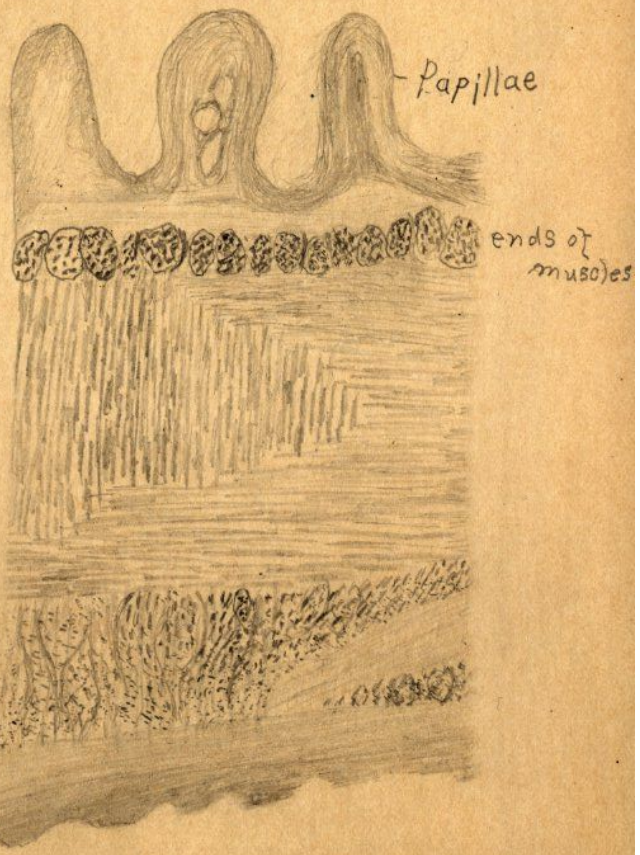


Tongue H.P.

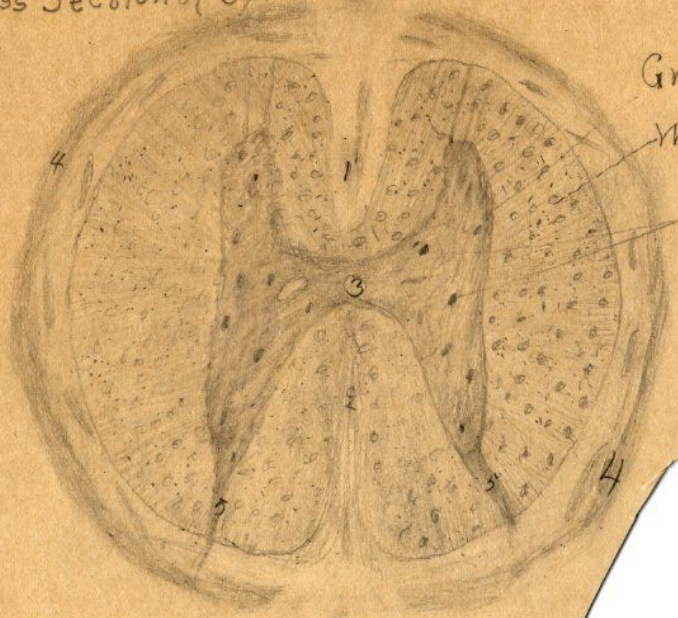
Strained muscles

Tongue

L.P



Cross Section of Spinal Cord



L.P.

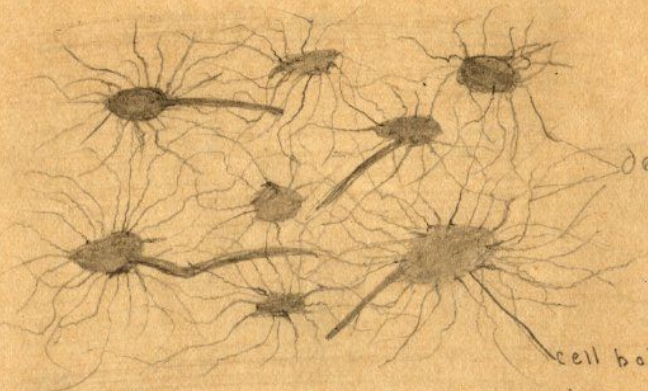
Gray Matter

White "

Nerve Cells

1 Anterior fissure
2 Posterior "
3 Central canal
4 Pia mater
5 Posterior Roots

H.P. Nerve Cells of Brain



Boone

Crooss Section