

# **ATLAS OF VETERINARY ANATOMY**

**For Veterinary Students**

**(PART 1)**

**PREPARED BY**

**ASHRAF SOBHY SABER**

*Assistant Professor Of  
Veterinary Anatomy*

**ASSIUT UNIVERSITY**



**DAR AL-MAAREF**

**1986**

Obeykandah.com

*Printing and Publishing*  
By  
**DAR AL-MAAREF**  
**1119 Corniche El-Nil - Cairo**

## LIST OF FIGURES

- Fig. 1 Scapula (horse).  
Fig. 2 Scapula (comparative).  
Fig. 3,4 Humerus (horse).  
Fig. 5 Humerus (comparative).  
Fig. 6 Humerus, proximal extremity (comparative).  
Fig. 7,8 Radius & ulna (horse).  
Fig. 9 Radius & ulna (comparative).  
Fig. 10 Carpal bones (horse).  
Fig. 11 Phalanges (horse).  
Fig. 12 Carpals, metacarpals and digits (comparative).  
Fig. 13 Muscles of the shoulder and arm (lateral view).  
Fig. 14 Muscles of the fore limb (medial view).  
Fig. 15 Extensors and flexors of the carpus and digits (horse).  
Fig. 16 Fore limb (muscles).  
Fig. 17 Arteries of the fore limb (horse).  
Fig. 18 Arteries of the fore limb (diagram).  
Fig. 19,20 Arteries of the metacarpus and digits (palm. & dors. views).  
Fig. 21 Nerves of the metacarpus and digits (palmar view).  
Fig. 22 Nerves of the metacarpus and digits (dorsal view).  
Fig. 23 Pelvic bone (horse).  
Fig. 24,25 Pelvic bone (comparative).  
Fig. 26 Acetabulum (comparative).  
Fig. 27,28 Femur (horse).  
Fig. 29 Femur (comparative).  
Fig. 30 Patella (comparative).  
Fig. 31,32 Tibia and fibula (horse).  
Fig. 33 Tibia (comparative).  
Fig. 34 Fibula (comparative).  
Fig. 35 Tarsal bones (horse).  
Fig. 36,37 Muscles of the hind limb (horse).  
Fig. 38 Muscles of the thigh (horse).  
Fig. 39 Hind limb (muscles).  
Fig. 40 Arteries of the hind limb (horse).  
Fig. 41 Arteries of the hind limb (diagram).  
Fig. 42,43 Arteries of the metatarsus and digits (horse).  
Fig. 44 Nerves of the metatarsus and digits (plantar view).  
Fig. 45 Nerves of the metatarsus and digits (dorsal view).  
Fig. 46 Cervical vertebrae of the horse.

Fig. 47	Thoracic and lumbar vertebrae of the horse.
Fig. 48	Sacrum (horse).
Fig. 49	Ribs (comparative).
Fig. 50	Sternum (comparative).
Fig. 51	Parts of the hoof (horse).
Fig. 52	Plantar surface of the hoof.
Fig. 53	Corium of the hoof.
Fig. 54	Regions of the body (horse).
Fig. 55	Regions of the head (horse).
Fig. 56-60	Skull (horse).
Fig. 61	Muscles of the face (horse).
Fig. 62	Sagittal sections of the head (horse).
Fig. 63	Head, mandible removed (horse).
Fig. 64	Head of the horse (arteries).
Fig. 65	Head of the horse (veins).
Fig. 66	Head of the horse (nerves):
Fig. 67,68	Cranial nerves (N. trigeminus).
Fig. 69	Cranial nerves (N. facialis).
Fig. 70	Cranial nerves.
Fig. 71	Regions of the neck (horse).
Fig. 72	Muscles of the neck (horse).
Fig. 73	Muscles of the neck (first layer).
Fig. 74	Muscles of the neck (second layer).
Fig. 75	Muscles of the neck (third layer).
Fig. 76	Muscles of the neck (fourth layer).
Fig. 77	Ligamentum nuchae (horse).
Fig. 78	Pectoral muscles of the horse.
Fig. 79	Muscles of the thorax (horse).
Fig. 80	Muscles of the abdomen (horse).
Fig. 81	Rectal sheath (horse, dog).
Fig. 82	Inguinal canal (horse).
Fig. 83	Diagram of the lumbo-sacral plexus (horse).
Fig. 84	Diaphragm (horse).
Fig. 85	Cross section in the tail of the horse.
Fig. 86	Shoulder joint.
Fig. 87	Elbow joint.
Fig. 88	Carpal joints.
Fig. 89	Ligaments of the digits.
Fig. 90	Hip joint.
Fig. 91-92	Stifle joint.
Fig. 93	Proximal end of tibia with menisci.

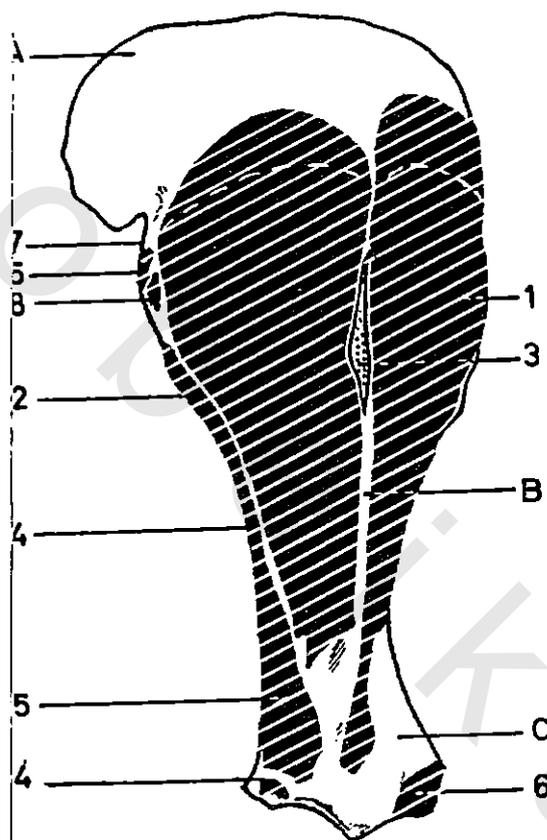
- Fig. 94 Hock joint.  
Fig. 95 Pelvic ligaments.  
Fig. 96 Skeleton of the horse.  
Fig. 97 Skeleton of the ox.  
Fig. 98 Skeleton of the dog.  
Fig. 99 Skeleton of the pig.  
Fig. 100 Skeleton of the fowl.

obeykandi.com

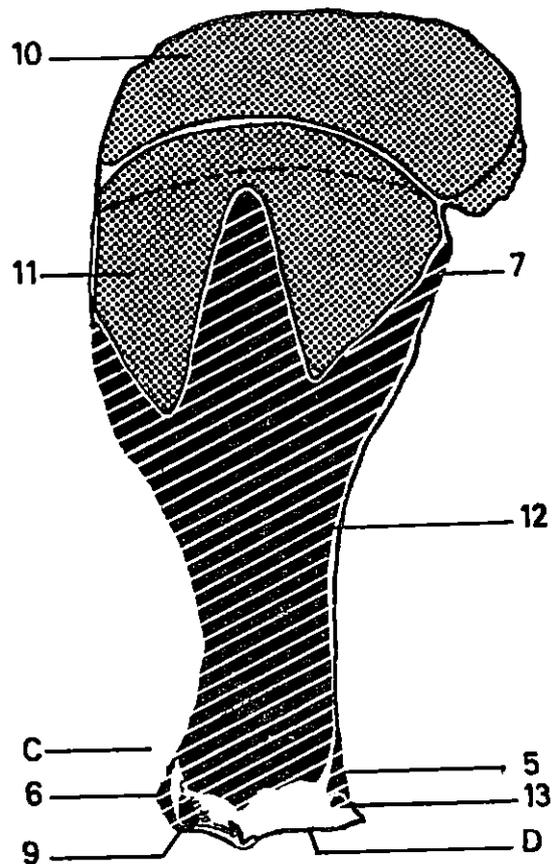
## ABBREVIATIONS

- dorsal	= dors.
- ventral	= vent.
- cranial	= cran.
- caudal	= caud.
- rostral	= rost.
- medial	= med.
- lateral	= lat.
- superficial	= superf.
- profunds	= profund.
- muscle	= M.
- muscles	= Mm.
- artery	= A.
- arteries	= Aa.
- vein	= V.
- veins	= Vv.
- nerve	= N.
- nerves	= Nn.
- flexor	= flex.
- extensor	= ext.
- head	= h.
- ligament	= Lig.
- ligaments	= Ligg.
- proximal	= prox.
- distal	= dist.
- lines	= origins of the muscles.
- dots	= insertions of the muscles.

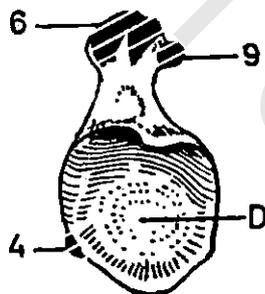
obeykandi.com



LATERAL VIEW



MEDIAL VIEW



GLENOID CAVITY .

Fig. (1) Scapula

- |                                  |                      |
|----------------------------------|----------------------|
| 1 M. supraspinatus,              | 2 M. infraspinatus,  |
| 3 M. trapezius,                  | 4 M. teres minor,    |
| 5 M. triceps brachii (long head) | 6 M. biceps brachii, |
| 7 M. teres major,                | 8 M. deltoideus,     |
| 9 M. coracobrachialis,           | 10 M. rhomboideus,   |
| 11 M. serratus ventralis,        | 12 M. subscapularis, |
| 13 M. articularis humeri.        |                      |
| A Scapular cartilage,            | B Spina scapulae,    |
| C Coracoid process,              | D Glenoid cavity.    |

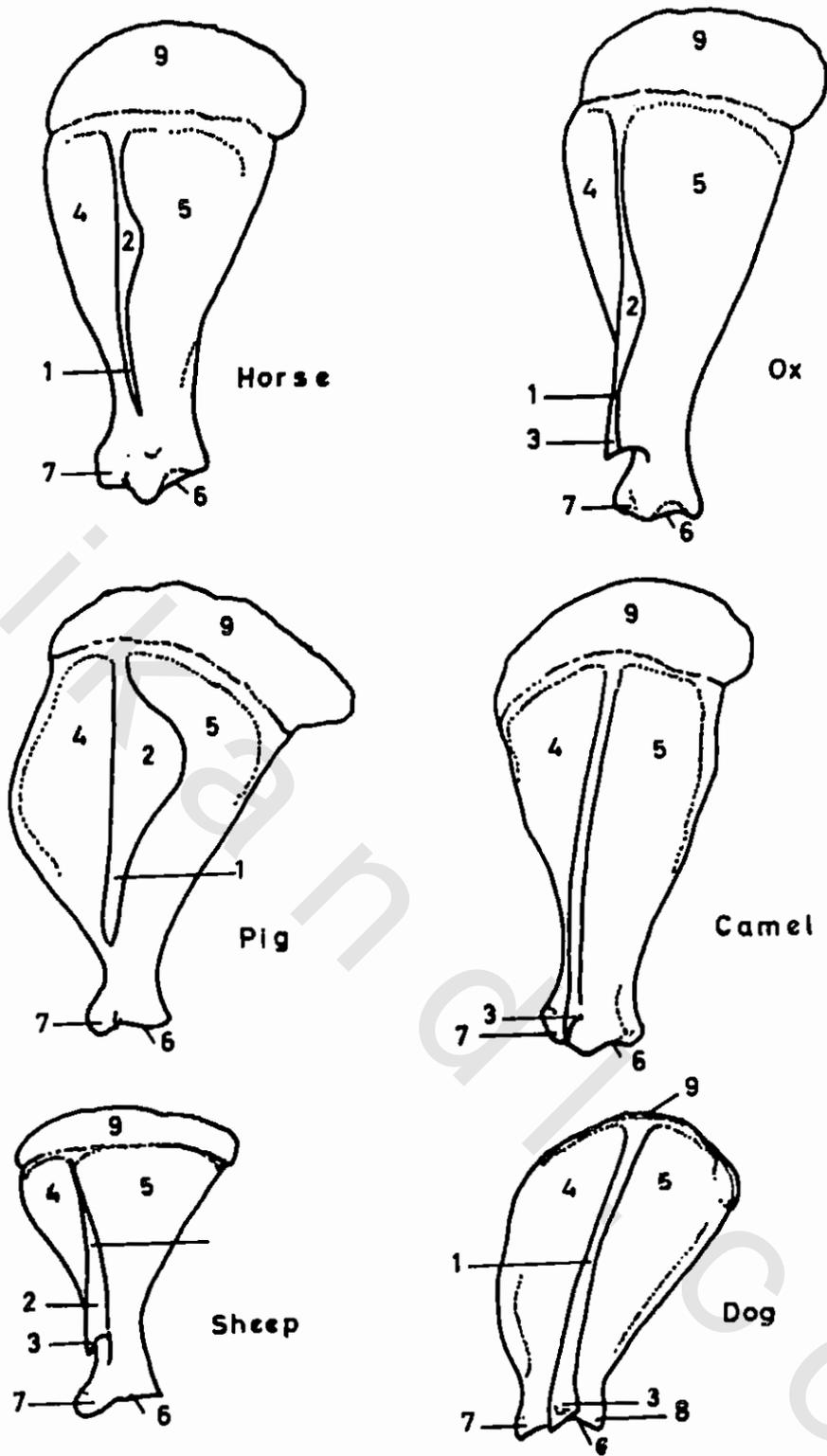
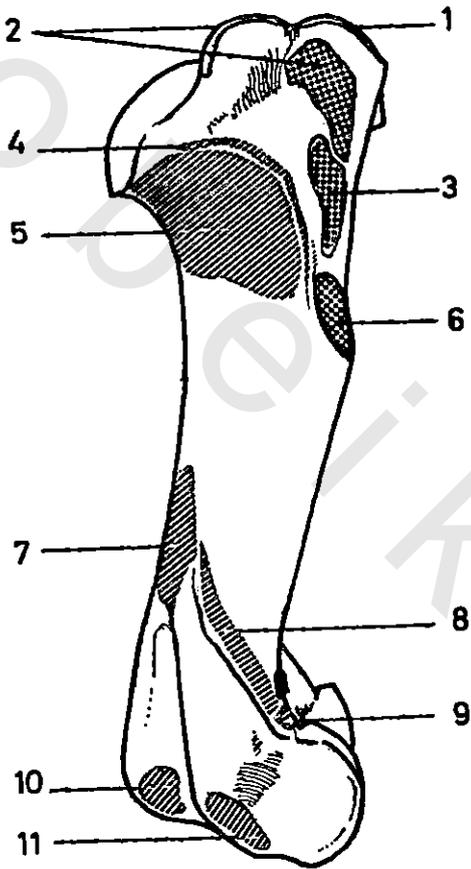
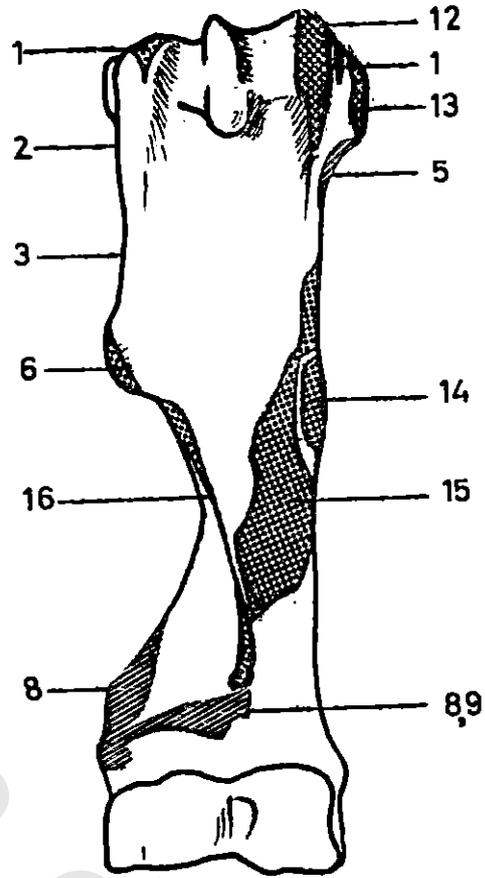


Fig. (2) Scapula, lateral view (Comparative)

- |                       |                               |                       |
|-----------------------|-------------------------------|-----------------------|
| 1 spina scapulae,     | 2 tuber spinae,               | 3 acromion process,   |
| 4 supraspinous fossa, | 5 infraspinous fossa,         | 6 glenoid cavity,     |
| 7 tuber scapulae,     | 8 infra-articular tuberosity, | 9 scapular cartilage. |



LATERAL VIEW

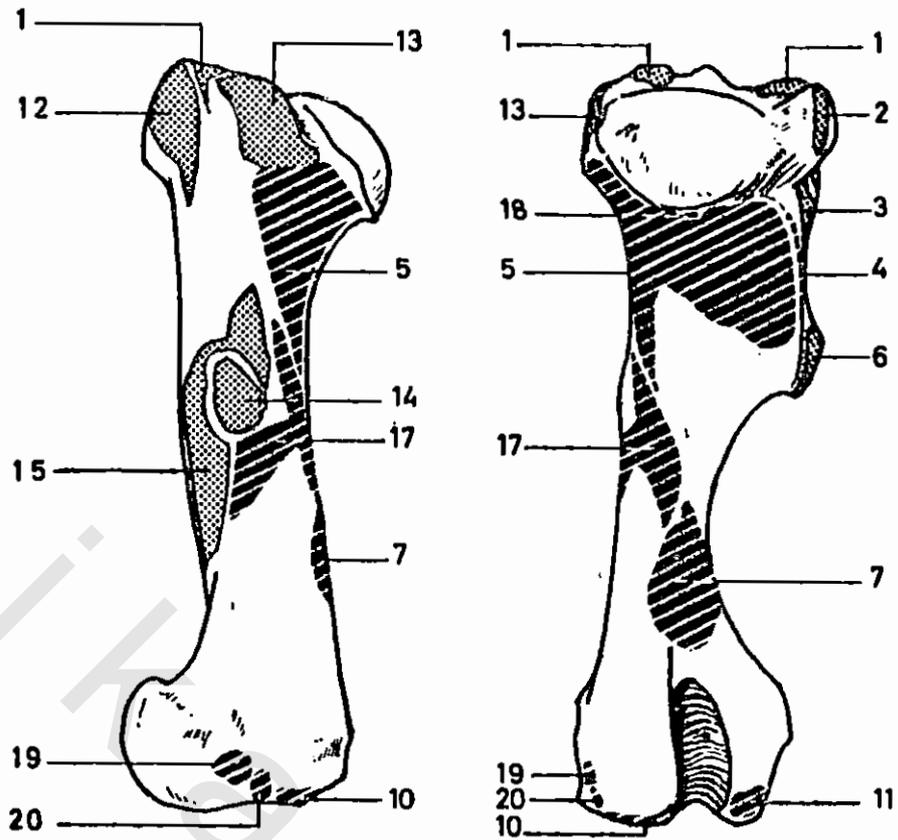


CRANIAL VIEW

Fig. (3), (4) Humerus

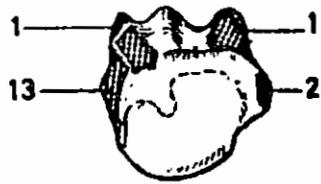
- 1 M. supraspinatus,
- 3 M. teres minor,
- 5 M. brachialis,
- 7 M. anconaeus,
- 9 M. ext. digit. communis,
- 11 M. ext. carpi ulnaris,
- 13 M. subscapularis,
- 15 M. coracobrachialis,
- 17 M. triceps brachii (med. h.)
- 19 M. flex. carpi radialis,

- 2 M. infraspinatus,
- 4 M. triceps brachii (lateral h.),
- 6 M. deltoideus,
- 8 M. ext. carpi radialis,
- 10 Mm. flex. digit. superfic. & prof.,
- 12 M. pectoralis profundus,
- 14 Mm. teres major & latissimus dors.
- 16 M. brachiocephalicus,
- 18 M. articularis humeri,
- 20 M. flex. carpi ulnaris.



MEDIAL VIEW

CAUDAL VIEW



PROXIMAL END



DISTAL END

Fig. (4)

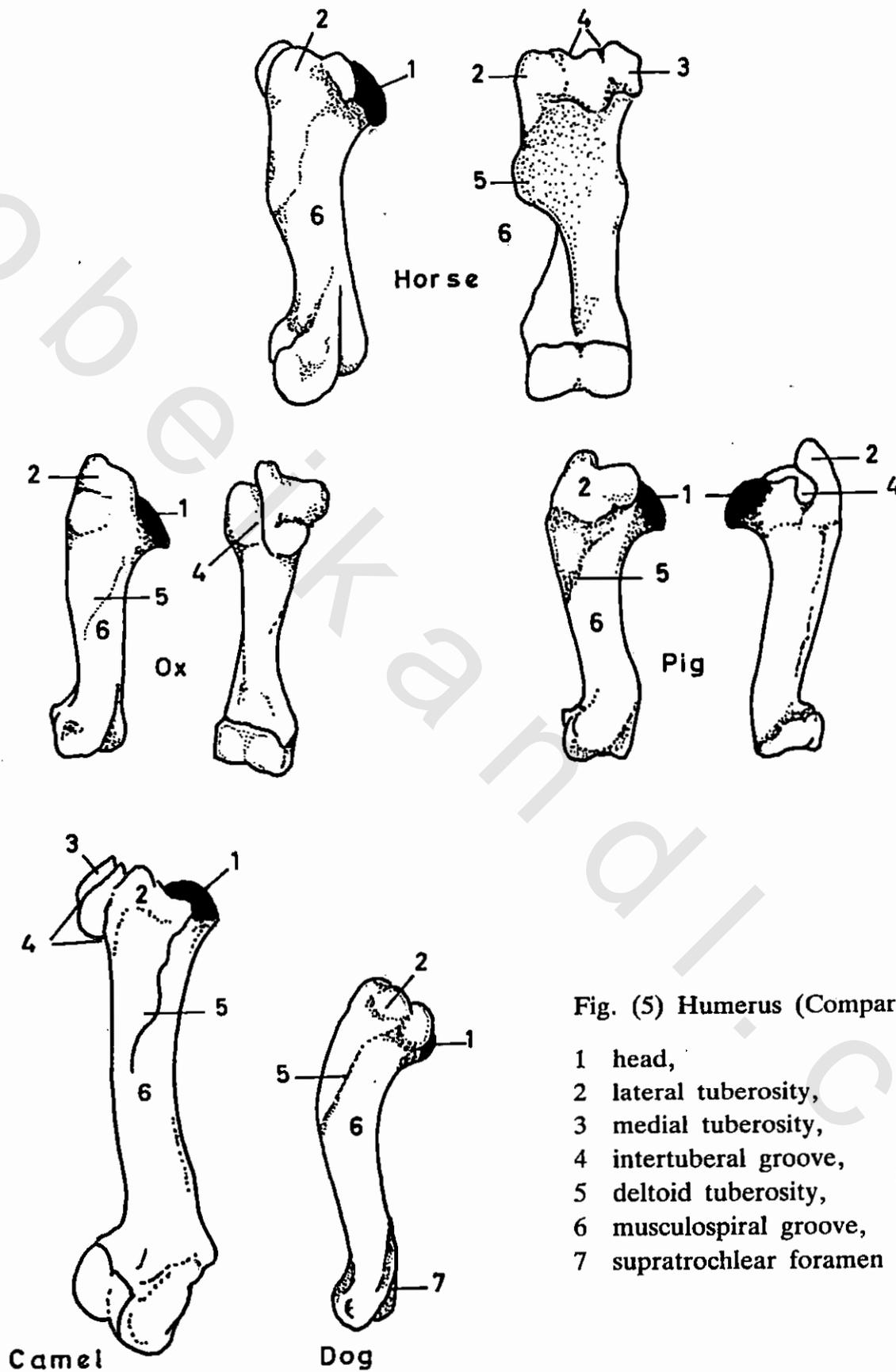


Fig. (5) Humerus (Comparative)

- 1 head,
- 2 lateral tuberosity,
- 3 medial tuberosity,
- 4 intertuberal groove,
- 5 deltoid tuberosity,
- 6 musculospiral groove,
- 7 supratrochlear foramen (dog).

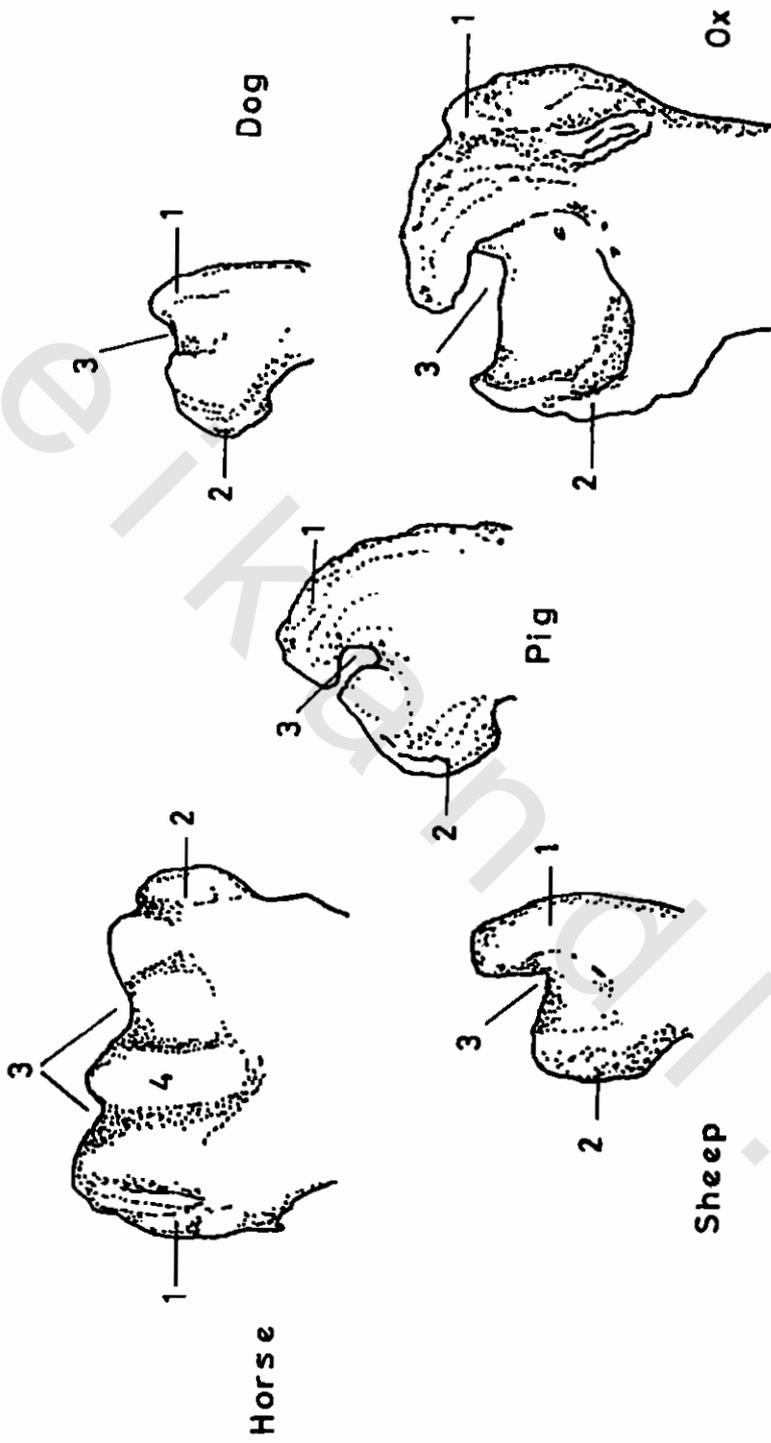
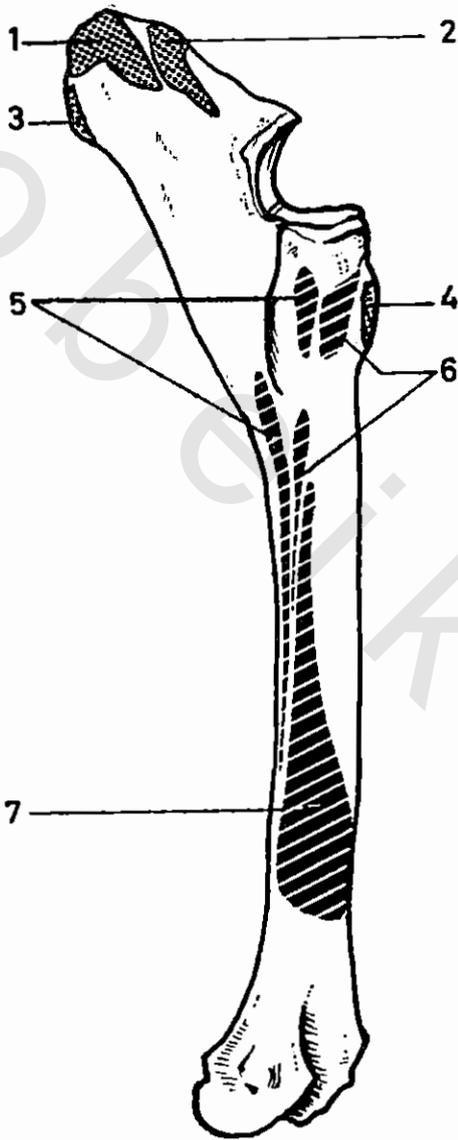


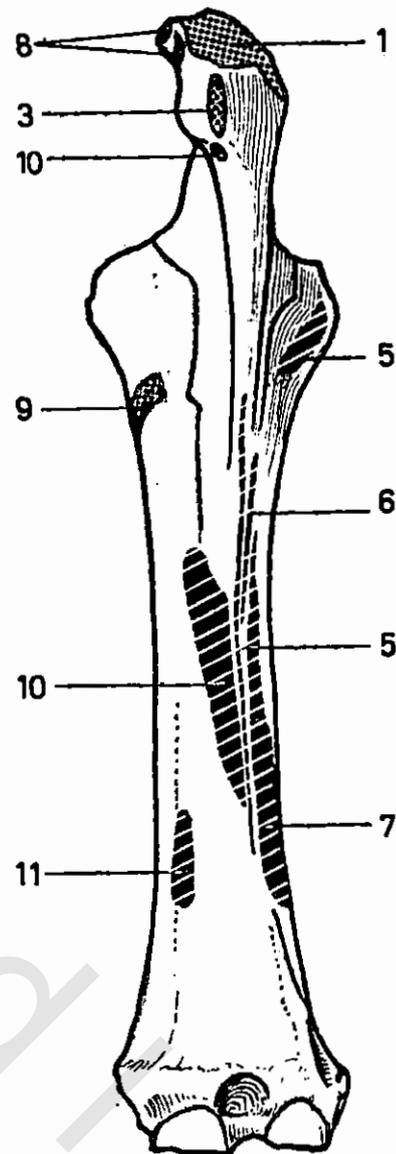
Fig (6) Humerus, Proximal Extremity (Comparative)

1 lateral tuberosity,  
3 intertuberal groove,

2 medial tuberosity,  
4 intermediate groove,



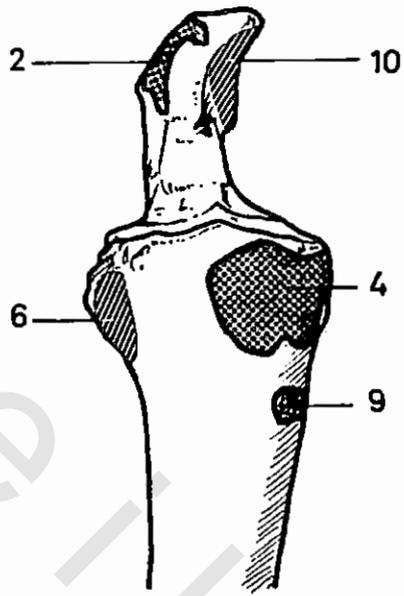
LATERAL VIEW



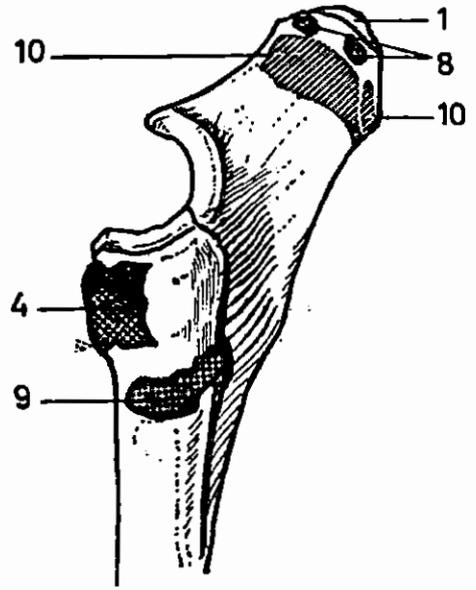
CAUDAL VIEW

Fig. (7), (8) Radius and Ulna

- |    |   |    |                                |
|----|---|----|--------------------------------|
| 1  | M. triceps brachii (long and lateral heads) | 3  | M. tensor fascia antibrachii,  |
| 2  | M. anconaeus,                               | 5  | M. ext. digitorum lateralis,   |
| 4  | M. biceps brachii,                          | 7  | M. abductor digiti I longus,   |
| 6  | M. ext. digit. communis,                    | 9  | M. brachialis,                 |
| 8  | M. triceps brachii (med.h.)                 | 11 | M. flex. digit. superficialis. |
| 10 | M. flex. digit. profundus,                  |    |                                |



CRANIAL VIEW



MEDIAL VIEW

Fig. (8)

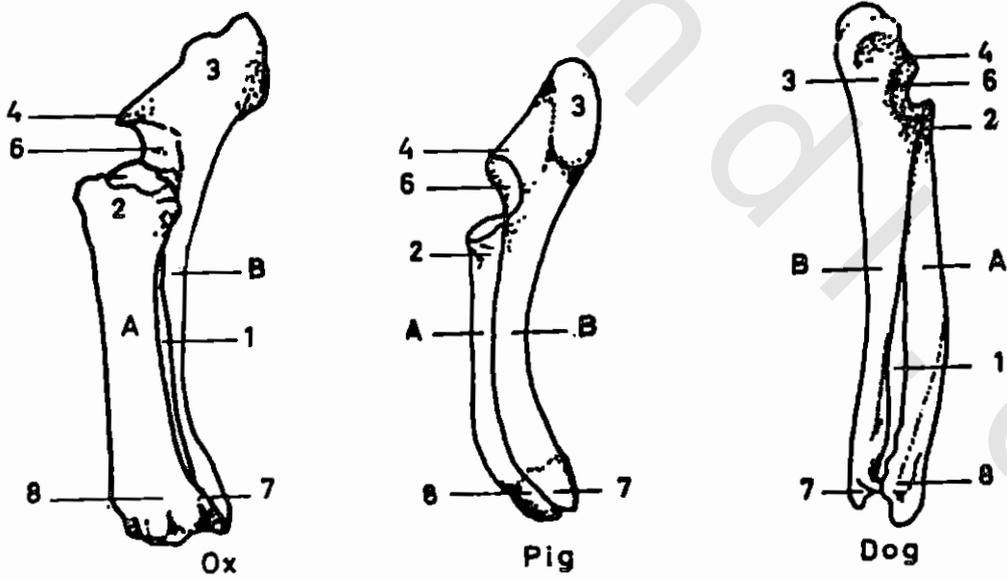
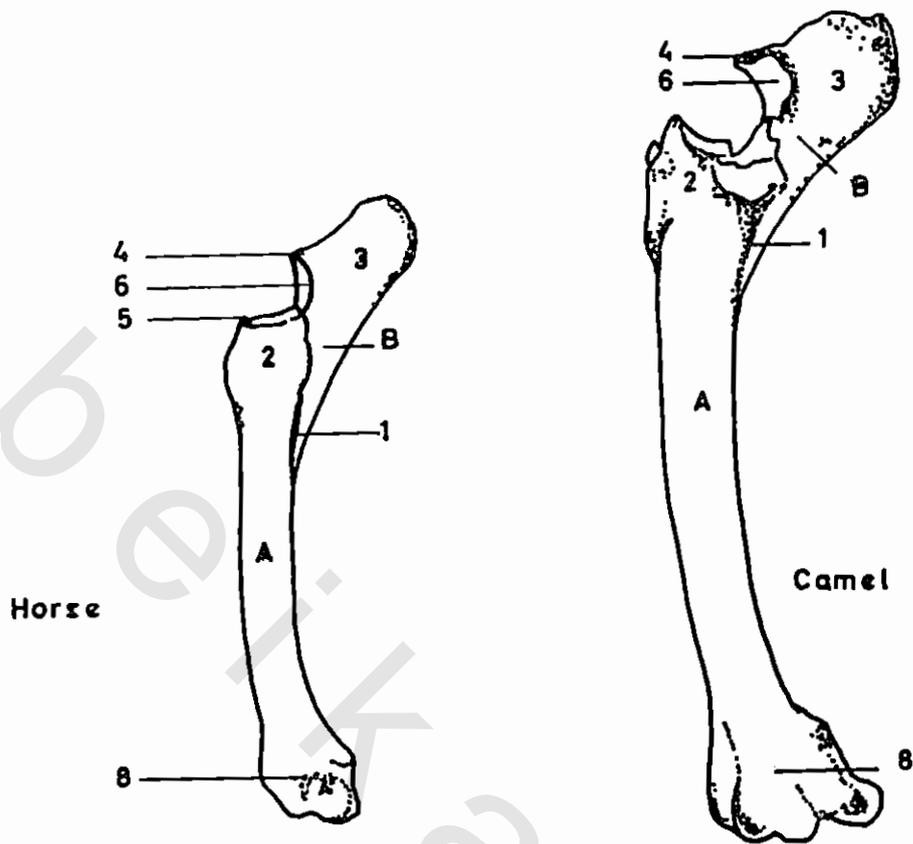


Fig. (9) Radius and Ulna (Comparative)

A radius,

1 interosseous space,

3 olecranon,

5 coronoid process,

7 styloid process of ulna,

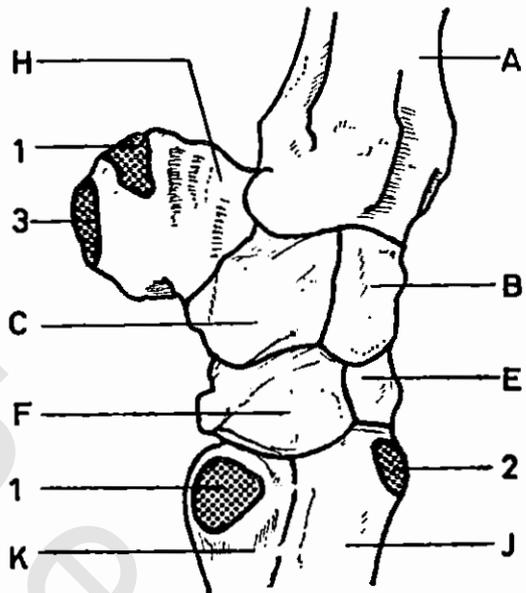
B ulna,

2 proximal extremity,

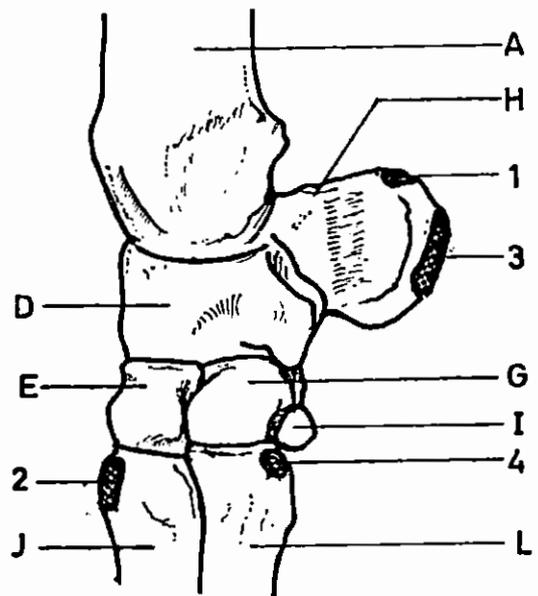
4 anconeus process,

6 semilunar notch,

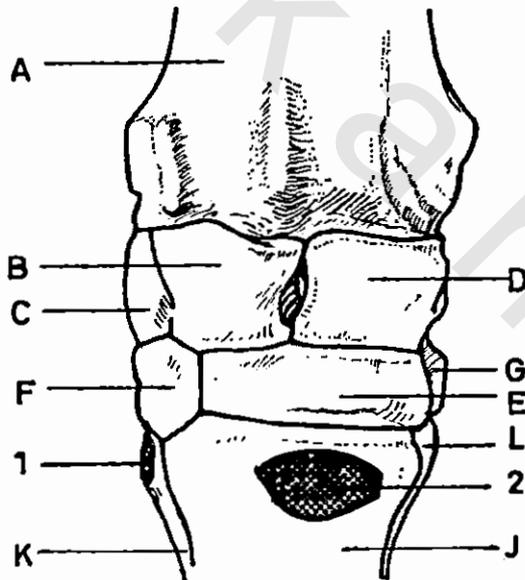
8 distal extremity.



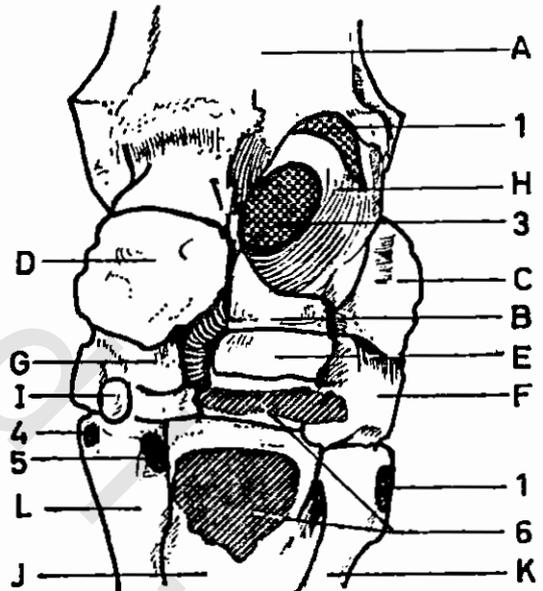
LATERAL VIEW



MEDIAL VIEW



DORSAL VIEW

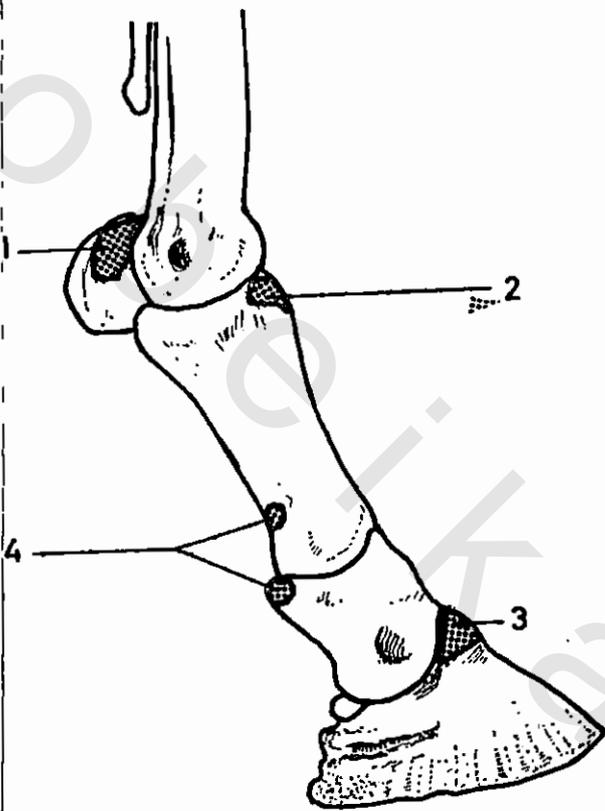


PALMAR VIEW

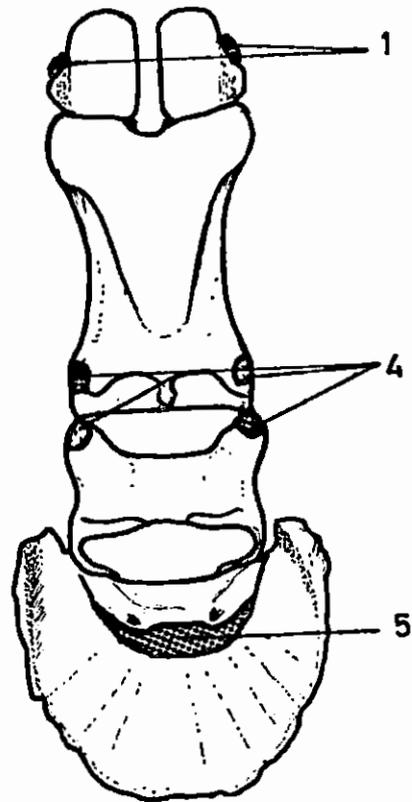
Fig. (10) Carpal bones

- 1 M. ext. carpi ulnaris,
- 3 M. flex. carpi ulnaris,
- 5 M. flex. carpi radialis,
- A radius,
- C ulnar carpal bone,
- E third carpal bone,
- G second carpal bone,
- I first carpal bone,
- K fourth metacarpal bone,

- 2 M. ext. carpi radialis,
- 4 M. abductor digiti I longus,
- 6 M. interosseus.
- B intermediate carpal bone,
- D radial carpal bone,
- F fourth carpal bone,
- H accessory carpal bone,
- J third metacarpal bone,
- L second metacarpal bone.



LATERAL VIEW



PALMAR VIEW

Fig. (11) Phalanges

- 1 M. interosseus,
- 3 M. ext. digit. communis,
- 5 M. flex. digit. profundus.

- 2 M. ext. digit. lateralis,
- 4 M. flex. digit. superficialis,

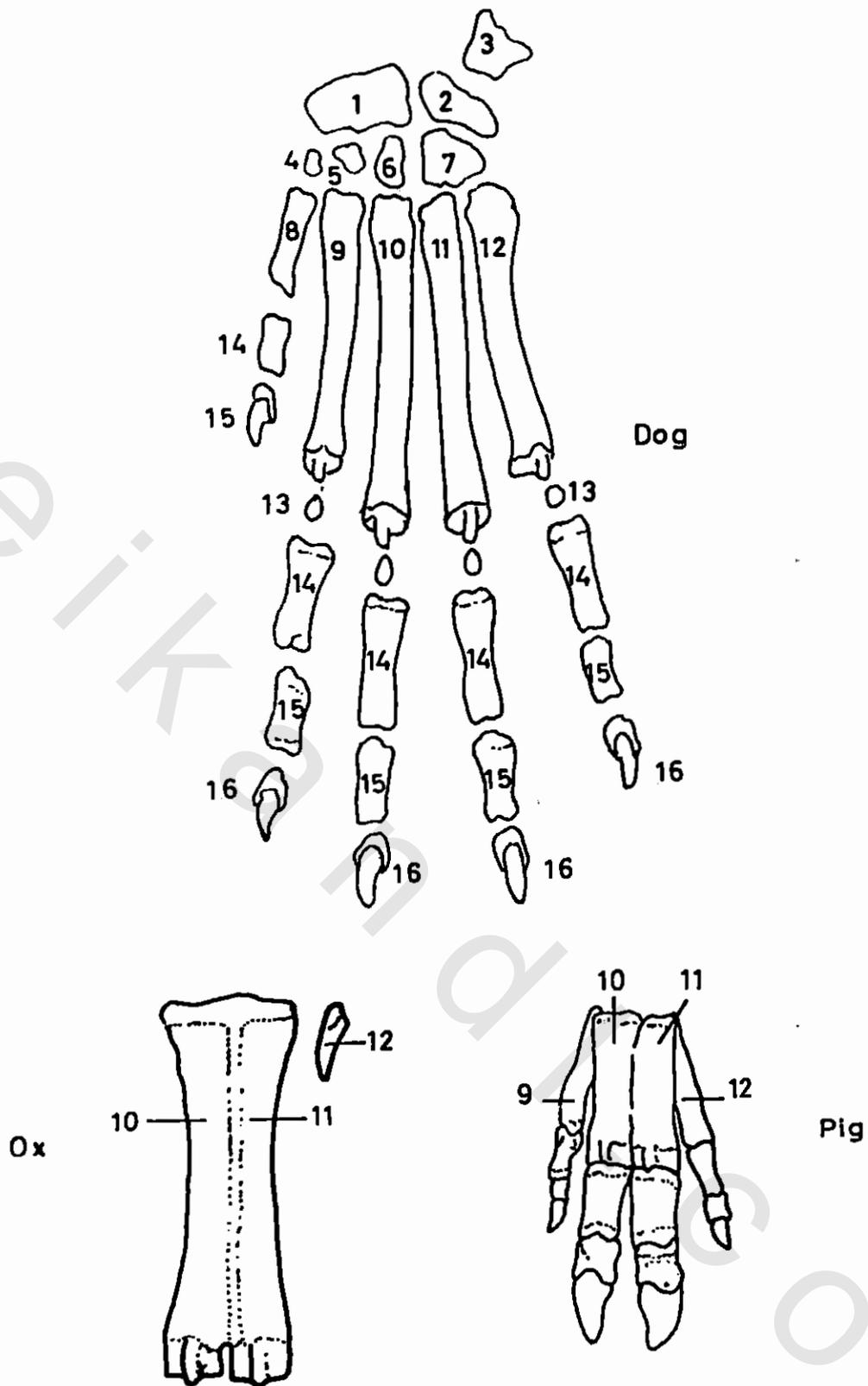


Fig. (12) Carpals, metacarpals and digit of the dog, ox and pig

- |                                   |                           |                           |
|-----------------------------------|---------------------------|---------------------------|
| 1 radial and intermediate carpal, | 3 accessory carpal,       | 4 1 <sup>st</sup> carpal, |
| 2 ulnar carpal,                   | 6 3 <sup>rd</sup> carpal, | 7 4 <sup>th</sup> carpal, |
| 5 2 <sup>nd</sup> carpal,         | 8 I metacarpal,           | 10 III metacarpal,        |
| 8 I metacarpal,                   | 9 II metacarpal,          | 13 dorsal sesamoids,      |
| 11 IV metacarpal,                 | 12 V metacarpal,          | 16 distal phalanges.      |
| 14 proximal phalan.,              | 15 intermediate phalan.   |                           |

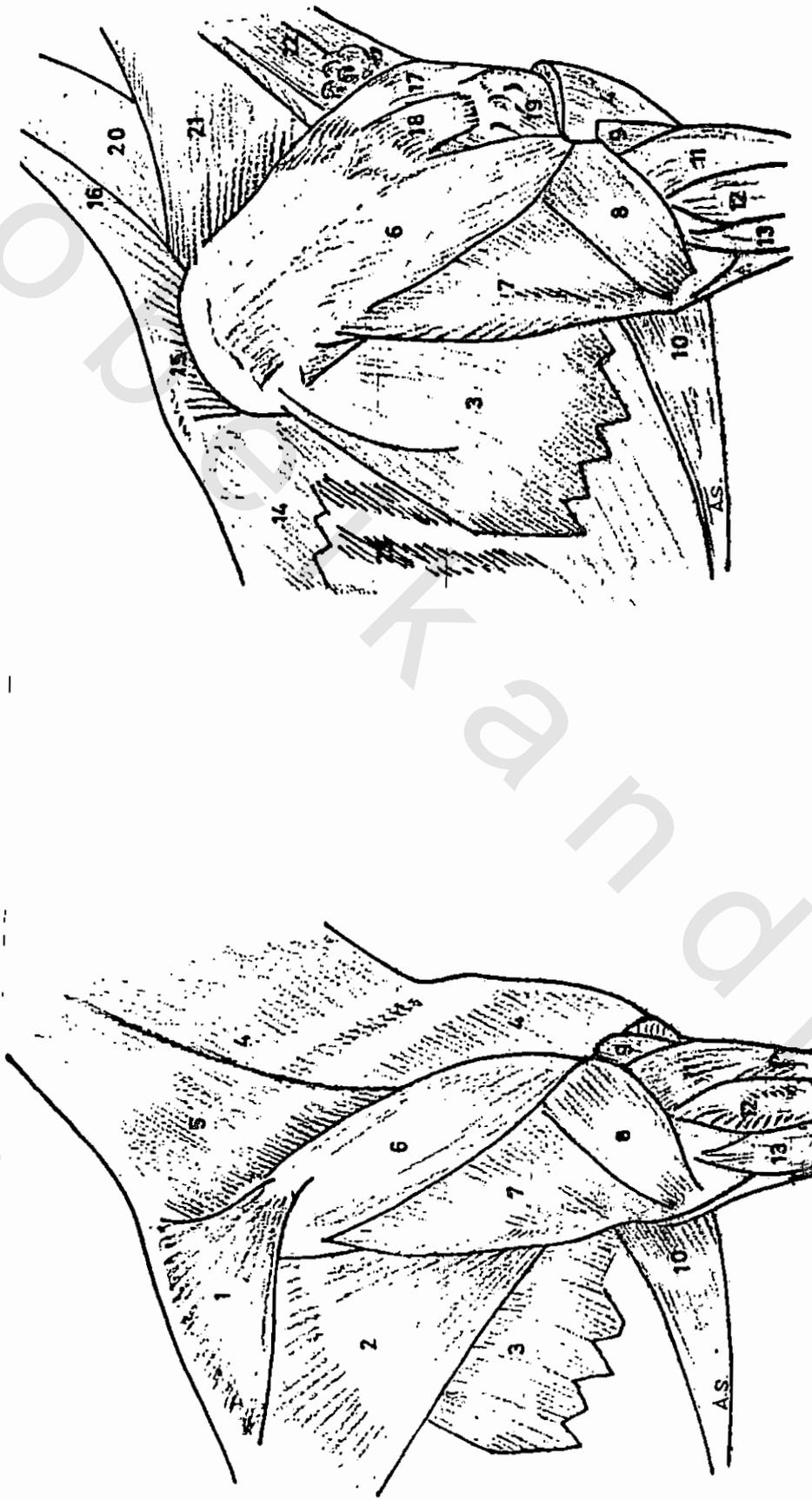
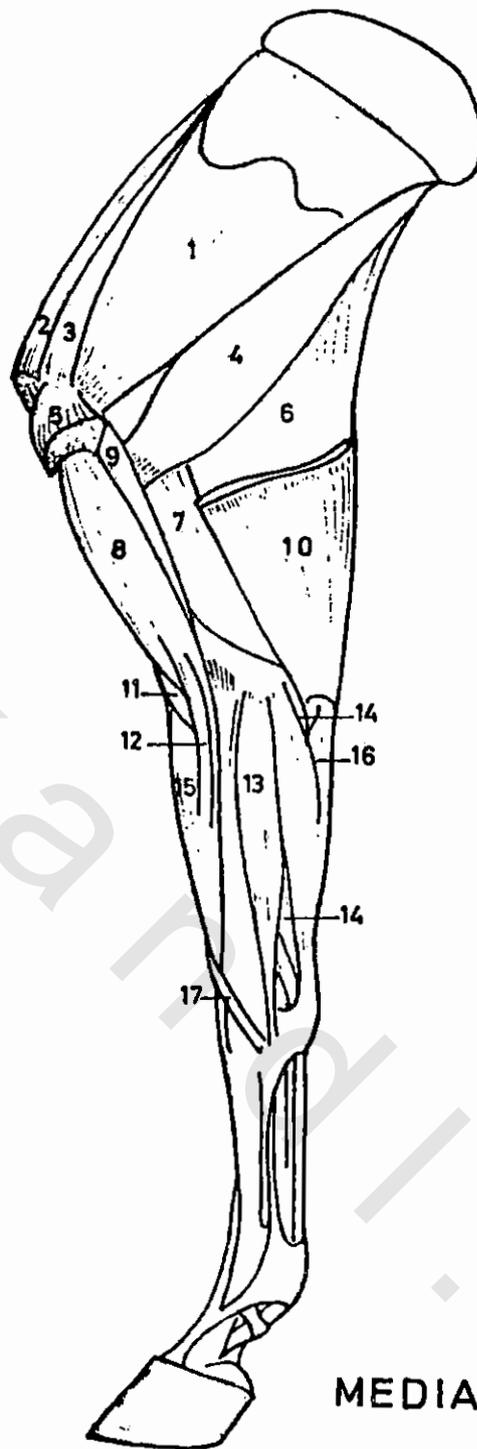


Fig. (13) Muscles of the shoulder and arm (Lateral View)

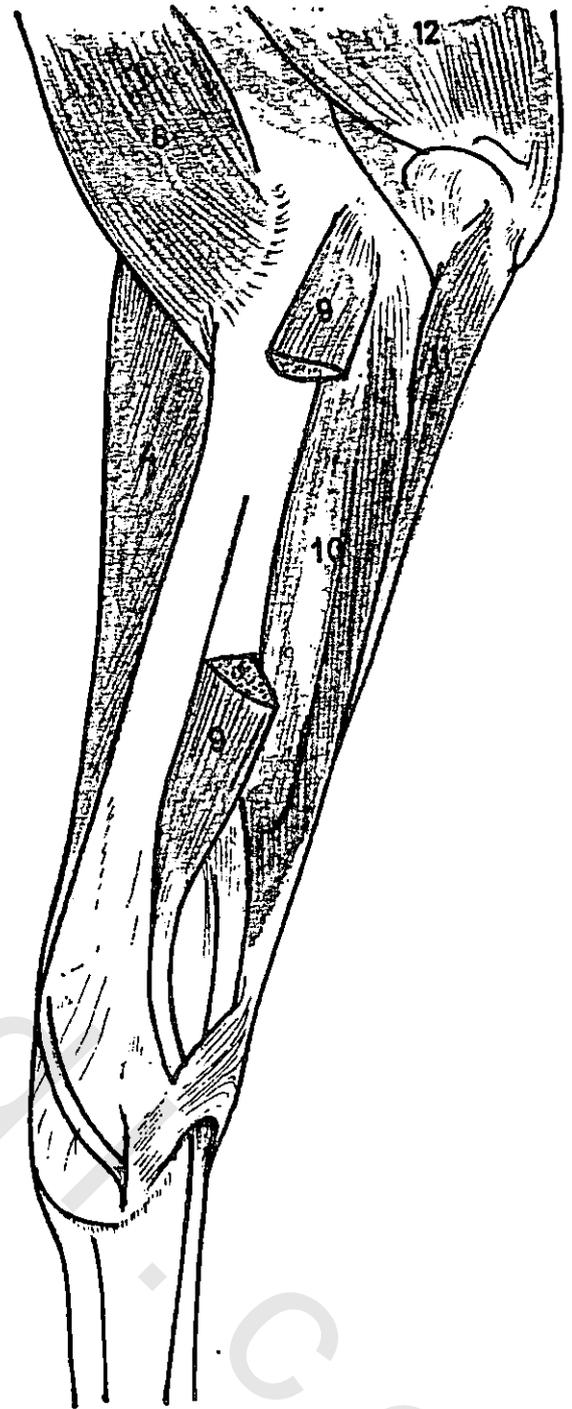
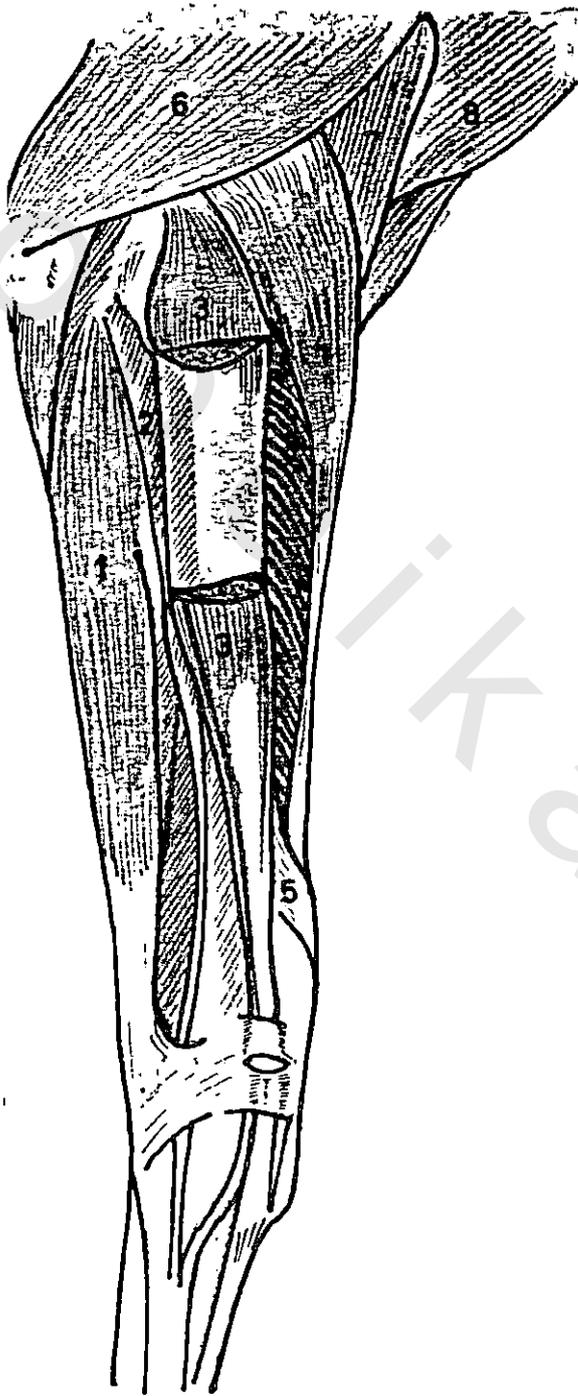
- |                                 |                               |                               |
|---------------------------------|-------------------------------|-------------------------------|
| 1 M. trapezius thoracis,        | 2 M. latissimus dorsi,        | 3 M. serratus vent. cervicis, |
| 4 M. brachiocephalicus,         | 5 M. trapezius cervicis,      | 6 M. deltoideus,              |
| 7 M. triceps brachii (long h.), | 8 M. triceps brachii (lat.h.) | 9 M. brachialis,              |
| 10 M. pectoralis profundus,     | 11 M. ext. carpi radialis,    | 12 M. ext. digit. communis,   |
| 13 M. ext. carpi ulnaris,       | 14 M. serratus dorsalis,      | 15 M. rhomboideus thoracic,   |
| 16 M. rhomboideus cervicis,     | 17 M. pectoralis profundus,   | 18 M. supraspinatus,          |
| 19 M. biceps brachii,           | 20 M. splenius,               | 21 M. serratus ven. cervicis, |
| 22 M. omohyoideus,              | 23 M. intercostalis externus. |                               |



MEDIAL VIEW

Fig. (14) Muscles of the fore limb (Medial View)

- |  |  |
|--|--|
| 1 M. subscapularis,                                    | 2 M. pectoralis profundus (subclavis),   |
| 3 M. supraspinatus,                                    | 4 M. teres major,                        |
| 5 M. pectoralis profundus,                             | 6 M. triceps brachii (long head),        |
| 7 M. triceps brachii (lat. h.),                        | 8 M. biceps brachii,                     |
| 9 M. coracobrachialis,                                 | 10 M. tensor fascia antebrachii,         |
| 11 M. brachialis,                                      | 12 M. lacertus fibrosus,                 |
| 13 M. flex. carpi radialis,                            | 14 M. flex. digit. superficialis,        |
| 15 M. ext. carpi radialis,                             | 16 M. flex. digit. profundus (ulnar h.), |
| 17 M. ext. carpi obliquus. (abductor digiti I longus). |  |



## LATERL VIEW

## MEDIAL VIEW

Fig. (15) Extensors and Flexors of the carpus and digits

- |  |   |
|--|---|
| 1 M. ext. carpi ulnaris (ulnaris lateralis), | 3 M. ext. digit. communis,              |
| 2 M. ext. digit. lateralis,                  | 5 M. abductor digiti I longus,          |
| 4 M. ext. carpi radialis,                    | 7 M. brachialis,                        |
| 6 M. triceps brachii (lat. h.),              | 9 M. flex. carpi radialis,              |
| 8 M. biceps brachii,                         | 11 M. flex. digit. profundus (ulnar h.) |
| 10 M. flex. carpi ulnaris,                   |   |

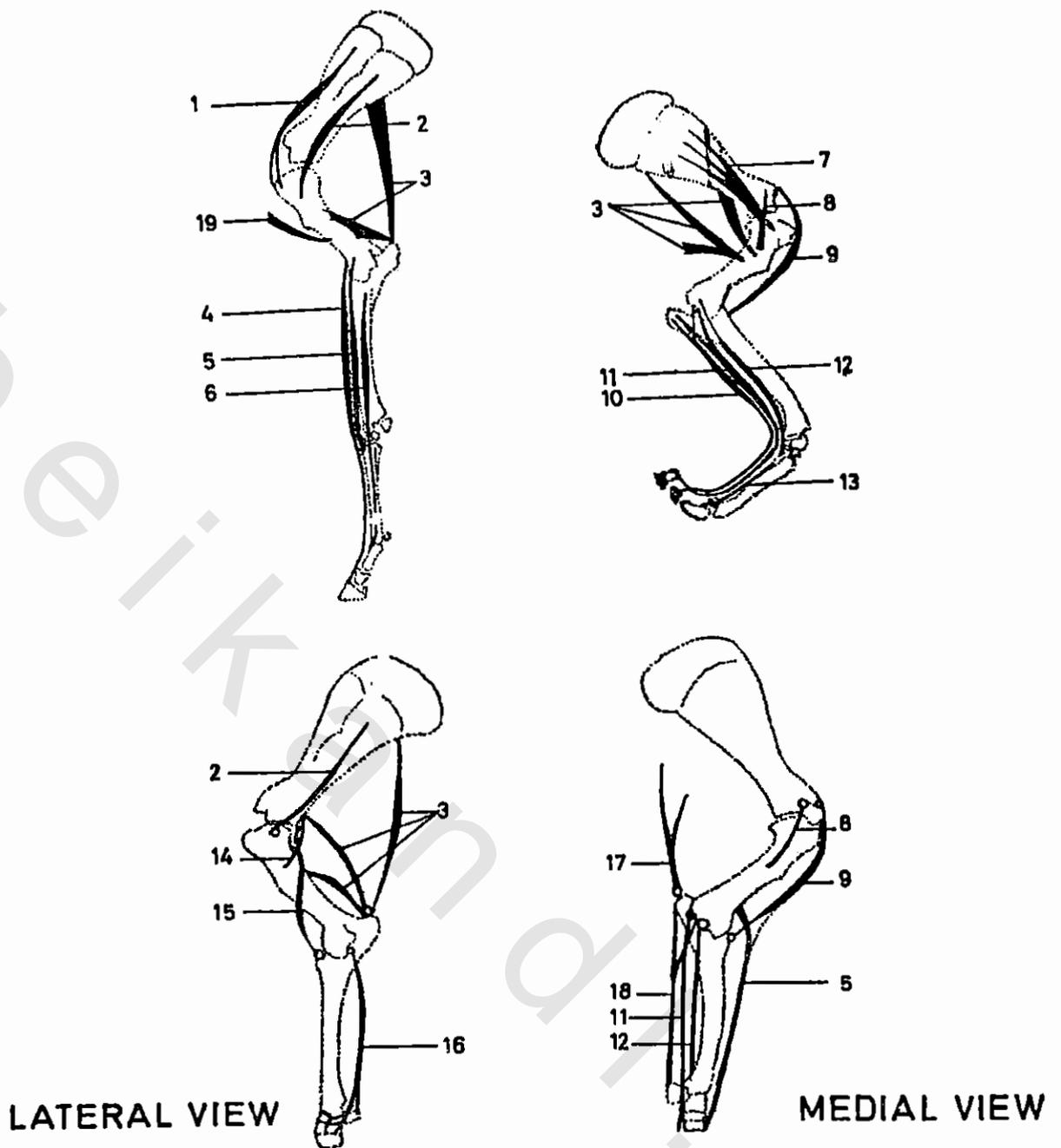
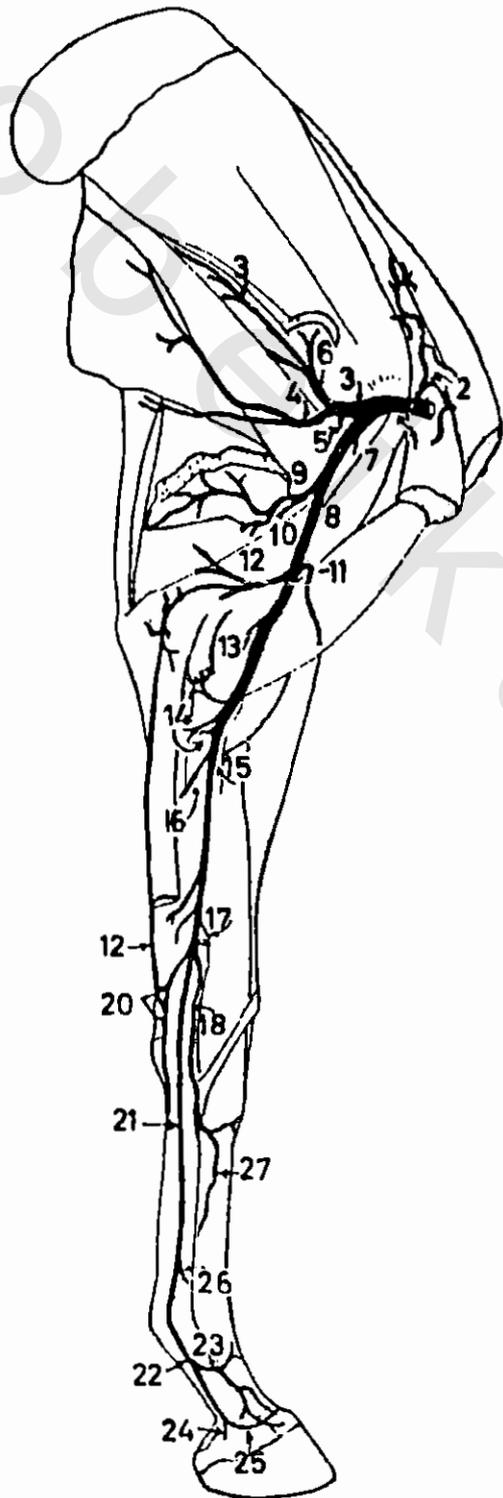


Fig. (16) Fore limb (Muscles)

- 1 M. supraspinatus,
- 2 M. infraspinatus,
- 3 M. triceps brachii,
- 4 M. ext. digit. communis,
- 5 M. ext. carpi radialis,
- 6 M. ext. digit. lateralis,
- 7 M. subscapularis,
- 8 M. coracobrachialis,
- 9 M. biceps brachii,
- 10 M. flex. digit. superficialis,
- 11 M. flex. digit. profundus,
- 12 M. flex. carpi radialis,
- 13 M. interosseus,
- 14 M. teres minor,
- 15 M. brachialis,
- 16 M. ext. carpi ulnaris,
- 17 M. tensor fascia antebrachii,
- 18 M. flex. carpi ulnaris,
- 19 M. brachiocephalicus.

- 2 M. infraspinatus,
- 4 M. ext. digit. communis,
- 6 M. ext. digit. lateralis,
- 7 M. subscapularis,
- 8 M. coracobrachialis,
- 10 M. flex. digit. superficialis,
- 12 M. flex. carpi radialis,
- 14 M. teres minor,
- 16 M. ext. carpi ulnaris,
- 18 M. flex. carpi ulnaris,

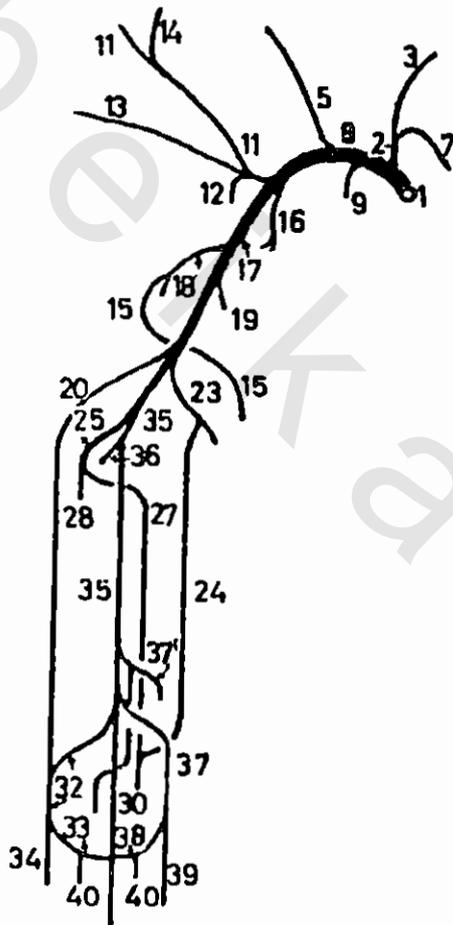


MEDIAL VIEW

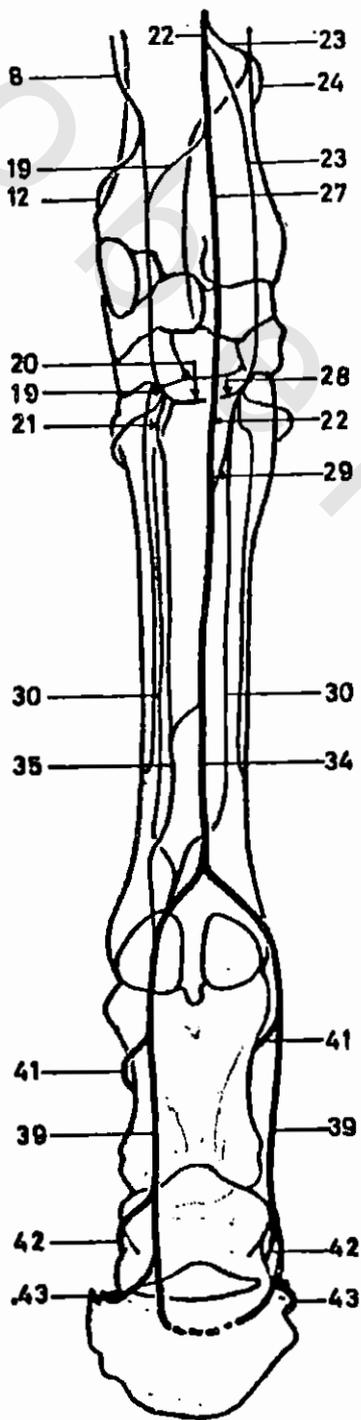
Fig. (17) Arteries of the fore limb

- 1 A. axillaris,
- 2 A. suprascapularis,
- 3 A. subscapularis,
- 4 A. thoracodorsalis,
- 5 A. circumflexa humeri cranialis,
- 6 A. circumflexa scapulae,
- 7 A. circumflexa humeri cranialis,
- 8 A. brachialis,
- 9 A. profunda brachii,
- 10 A. collateralis radialis,
- 11 A. bicipitalis,
- 12 A. collateralis ulnaris,
- 13 A. transversa cubiti,
- 14 A. interossea communis,
- 15 A. mediana,
- 16 A. profunda antebrachii,
- 17 A. radialis proximalis,
- 18 A. radialis,
- 19 R. palmaris profundus,
- 20 R. palmaris,
- 21 A. digitalis palmaris communis II,
- 22 A. digitalis palmaris (propria III) med,
- 23 R. dorsalis phalangis proximalis,
- 24 R. tori digitalis,
- 25 A. coronalis,
- 26 Origin of A. digitalis palmaris (propria III) lateralis (A. digit. palm. comm. III),
- 27 A. metacarpea dorsalis II.

Fig. (18) Arteries of the fore limb (Diagram)



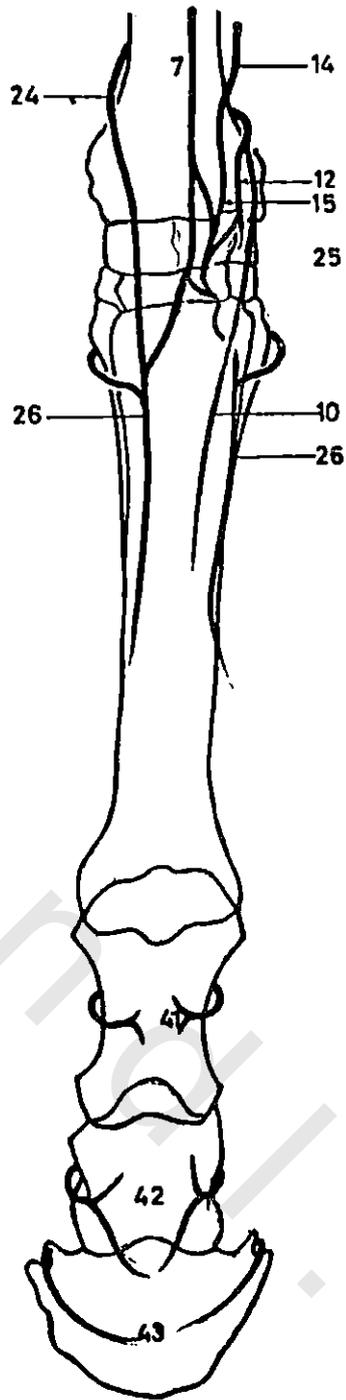
- 1 A. subclavia,
- 2 A. cervicalis superficialis,
- 3 R. ascendens,
- 5 A. suprascapularis,
- 7 R. deltoideus,
- 8 A. axillaris,
- 9 A. thoracica externa,
- 11 A. subscapularis,
- 12 A. circumflexa humeri,
- 13 A. thoracodorsalis,
- 14 A. circumflexa scapulae,
- 15 A. collateralis radialis,
- 16 A. circumflexa humeri cranialis,
- 17 A. brachialis,
- 18 A. profunda brachii,
- 19 A. bicipitalis,
- 20 A. collateralis ulnaris,
- 23 A. transversa cubiti,
- 24 Its branch to Rete carpi dorsalis,
- 25 A. interossea communis,
- 27 A. interossea cranialis,
- 28 A. interossea caudalis,
- 30 R. carpeus dorsalis of 27,
- 32 R. palmaris,
- 33 R. profundus,
- 34 R. superficialis,
- 35 A. mediana,
- 36 A. profunda antebrachii,
- 37 A. radialis,
- 38 R. profunda of 37,
- 39 R. superficialis of 37,
- 40 Aa. metacarpei palmares.



PALMAR VIEW

Fig. (19), (20) Arteries of the metacarpus and digits. (Palmar and Dorsal Views).

- 7 a branch of A. transversa cubiti to Rete carpi dors.,
- 8 A. collateralis ulnaris,
- 10 R. dorsalis from 8,
- 12 R. carpeus dorsalis,
- 14 A. interossea cranialis,
- 15 R. carpeus dorsalis from 14,
- 19 R. palmaris from the median artery,
- 20 R. profundus from 19,
- 21 R. superficialis from 19,
- 22 A. mediana,
- 23 A. radialis,
- 23' A. radialis proximalis,
- 24 R. carpeus dorsalis from 23',
- 25 Rete carpi dorsale,
- 26 Aa. metacarpeae dorsales II and III,
- 27 R. carpeus palmaris from 23 and 23',
- 28 Arcus palmaris profundus,
- 29 R. palmaris superficialis from 23,
- 30 Aa. metacarpeae palmares II, III,
- 34,35 Aa. digitales palmaris communis II and III,
- 39 A. digitalis palmaris (propria III) medialis & lat.
- 41 Rr. dorsales phalangis proximalis,
- 42 Rr. dorsales phalangis mediae,
- 43 Rr. dorsales phalangis distalis.



DORSAL VIEW

Fig. (20)

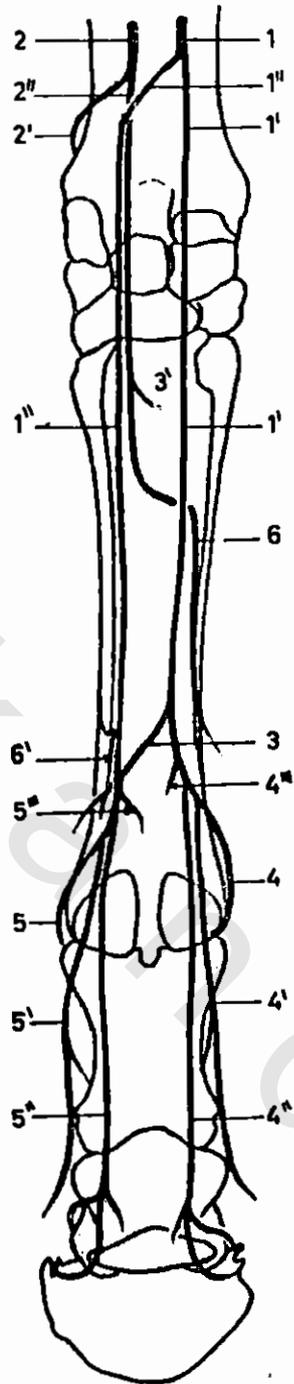


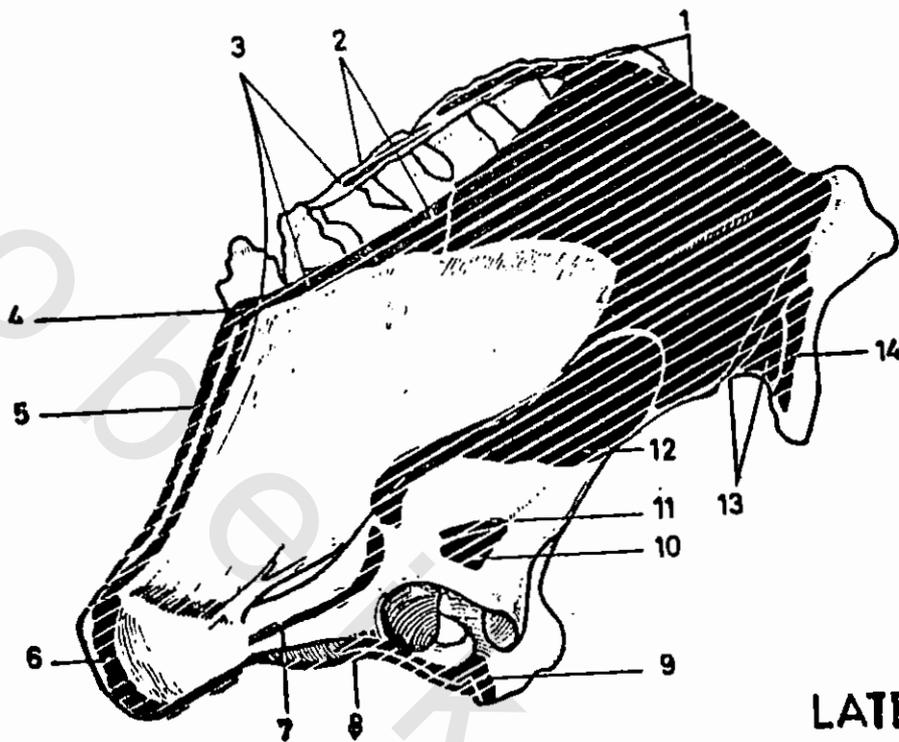
Fig. (21) Nerves of the metacarpus and digits (Palmar View)

1	N. medianus,	1'	Its R. medialis (palm. med.),
1''	Its R. lateralis (palm. lat.),	2	N. ulnaris,
2'	Its R. dorsalis,	2''	Its R. palmaris,
3	R. superfic. of R. palmaris N. ulnaris,	4'	R. intermedius,
4	R. dorsalis,	4'''	R. caud. of N. digit. palm. med.,
4''	R. palmaris,	5'	R. intermedius,
5	R. dorsalis,	5'''	R. caud. of N. digit. palm. late.,
5''	R. palmaris,	6'	N. metacarpeus palm. lat.
6	N. metacarpeus palm. med.,		

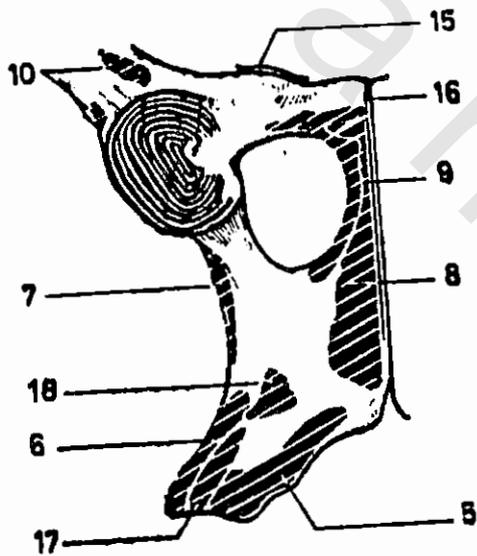


Fig. (22) Nerves of the metacarpus and digits (Dorsal View)

- 1 R. superficialis of N. radialis (N. cutaneus antebrachii lat.)
- 2 R. dorsalis of N. ulnaris,
- 3 N. cutaneus antebrachii medialis of the N. musculocutaneous,
- 4' end branch of R. dorsalis of N. ulnaris (N. metacarpus dors. lat.),
- 4 end branches of N. cutaneus antebrachii med. (N. metacarp. dors. med.)
- 5 end branches of R. dorsalis,
- 5' dorsal end branches of R. intermedius,
- 5'' dorsal end branches of R. palmaris of N. digitalis palmaris lat.



LATERAL VIEW



VENTRAL VIEW

Fig. (23) Pelvic bone

- |                                |   |
|--------------------------------|---|
| 1 M. gluteus medius,           | 2 M. biceps femoris,                    |
| 3 Mm. semitendinosus & biceps, | 4 Mm. semitendinosus & semimembranosus. |
| 5 M. semimembranosus,          | 6 M. biceps femoris,                    |
| 7 Mm. gemelli,                 | 8 M. adductor,                          |
| 9 M. obturator externus,       | 10 M. rectus femoris,                   |
| 11 M. articularis coxae,       | 12 M. gluteus profundus,                |
| 13 M. gluteus superficialis,   | 14 M. tensor fasciae latae,             |
| 15 M. pectineus,               | 16 M. gracilis,                         |
| 17 M. semitendinosus,          | 18 M. quadratus femoris.                |

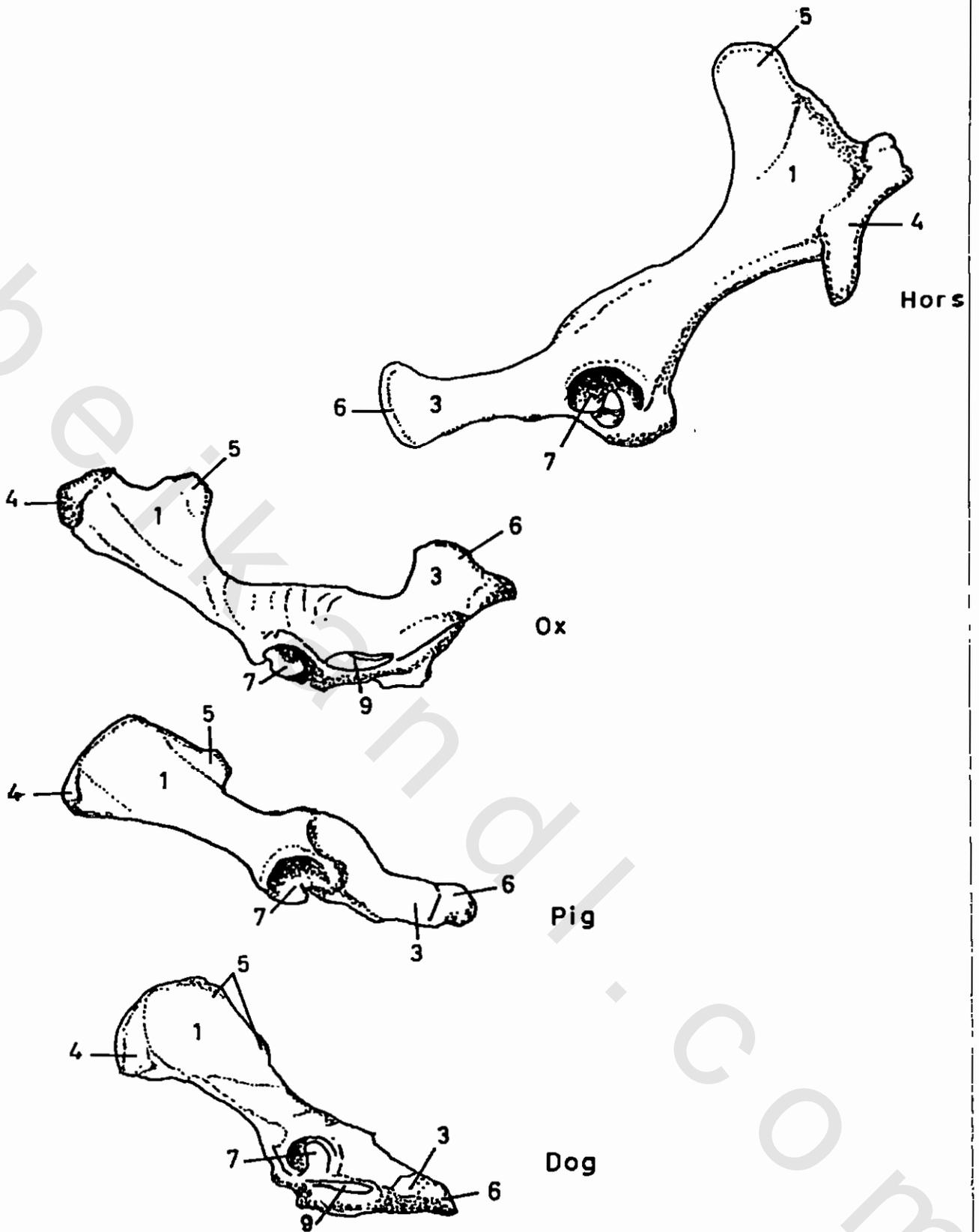


Fig. (24), (25) Pelvic bone, lateral and dorsal views, (Comparative)

- |                |                  |                      |
|----------------|------------------|----------------------|
| 1 ilium,       | 2 pubis,         | 3 ischium,           |
| 4 tuber coxae, | 5 tuber sacrale, | 6 tuber ischii,      |
| 7 acetabulum,  | 8 gluteal line,  | 9 obturator foramen. |

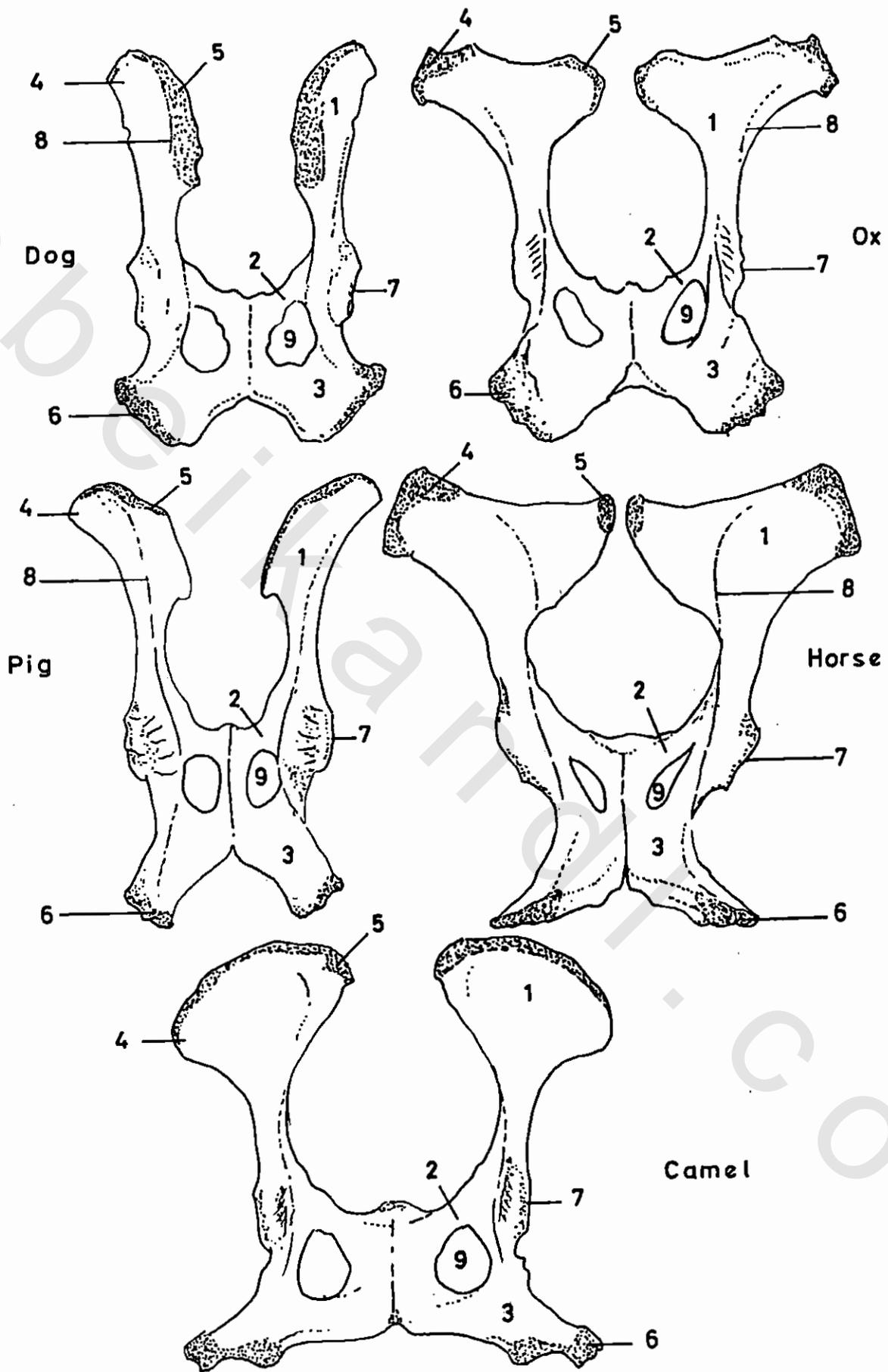
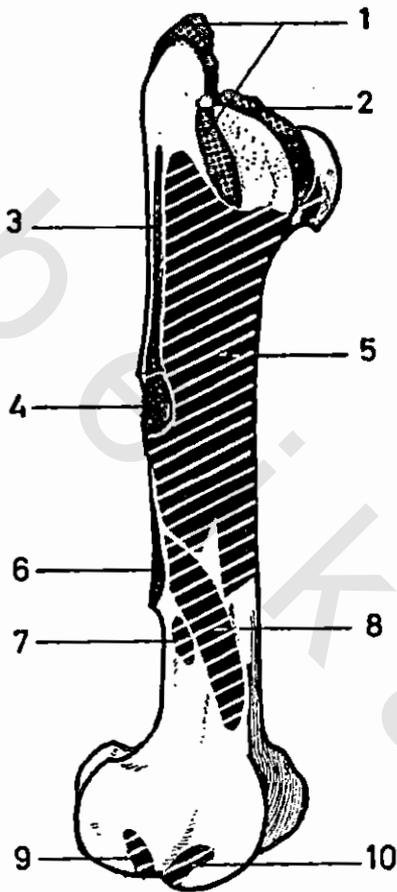
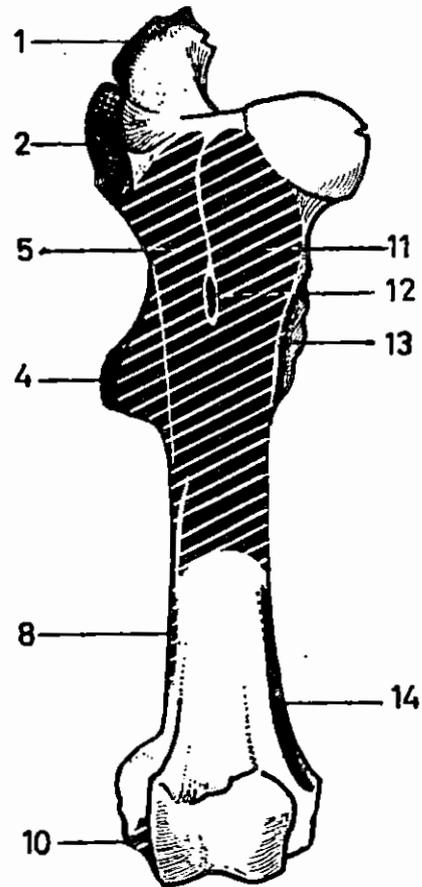


Fig. (25)





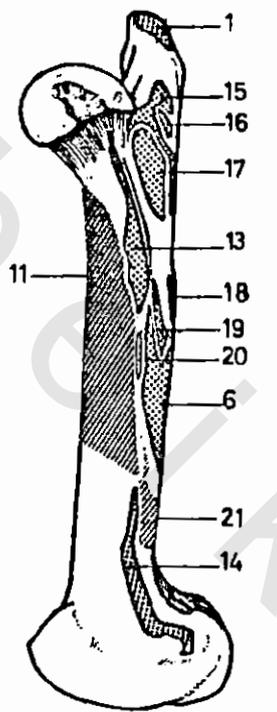
LATERAL VIEW



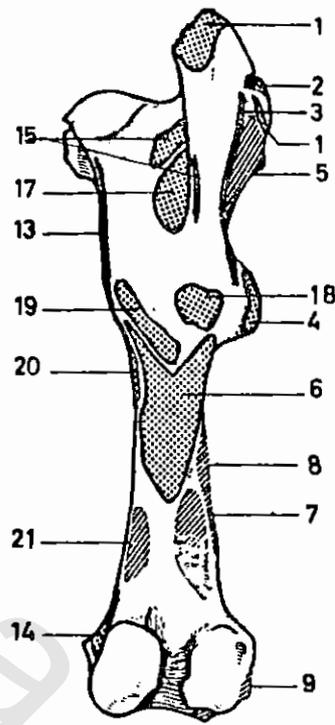
CRANIAL VIEW

Fig. (27), (28) Femur

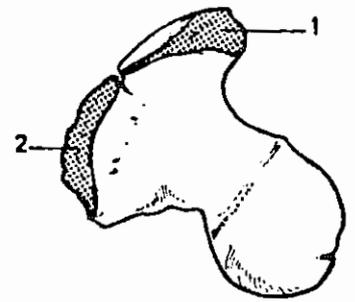
- |    |                               |    |  |
|----|-------------------------------|----|--|
| 1  | M. gluteus medius,            | 2  | M. gluteus profundus,                    |
| 3  | M. piriformis,                | 4  | M. gluteus superficialis,                |
| 5  | M. vastus lateralis,          | 6  | M. adductor,                             |
| 7  | M. flex. digit. superfic,     | 8  | M. gastrocnemius (lateral h.),           |
| 9  | M. popliteus,                 | 10 | Mm. peroneus tertius & ext. digit. long. |
| 11 | M. vastus medialis,           | 12 | M. articularis coxae,                    |
| 13 | M. iliopsoas,                 | 14 | Mm. adductor & semimembranosus,          |
| 15 | Mm. gemelli,                  | 16 | M. obturator internus,                   |
| 17 | M. obturator externus,        | 18 | M. biceps femoris,                       |
| 19 | M. quadratus femoris,         | 20 | M. pectineus,                            |
| 21 | M. gastrocnemius (medial h.). |    |  |



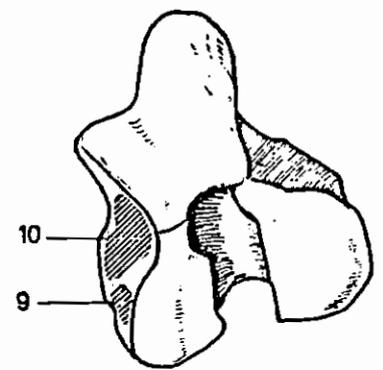
MEDIAL VIEW



CAUDAL VIEW



PROXIMAL END.



DISTAL END

Fig. (28)

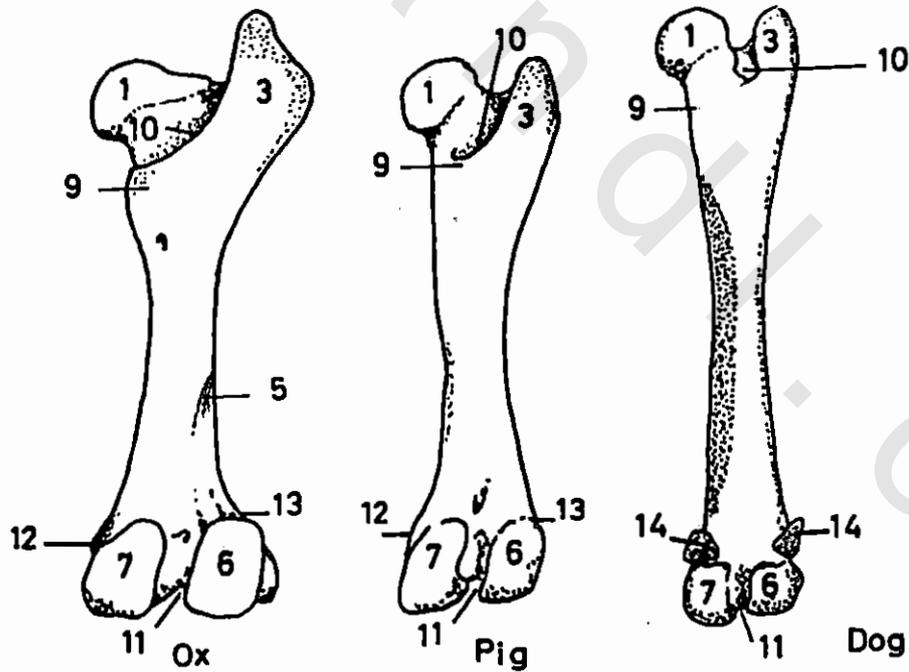
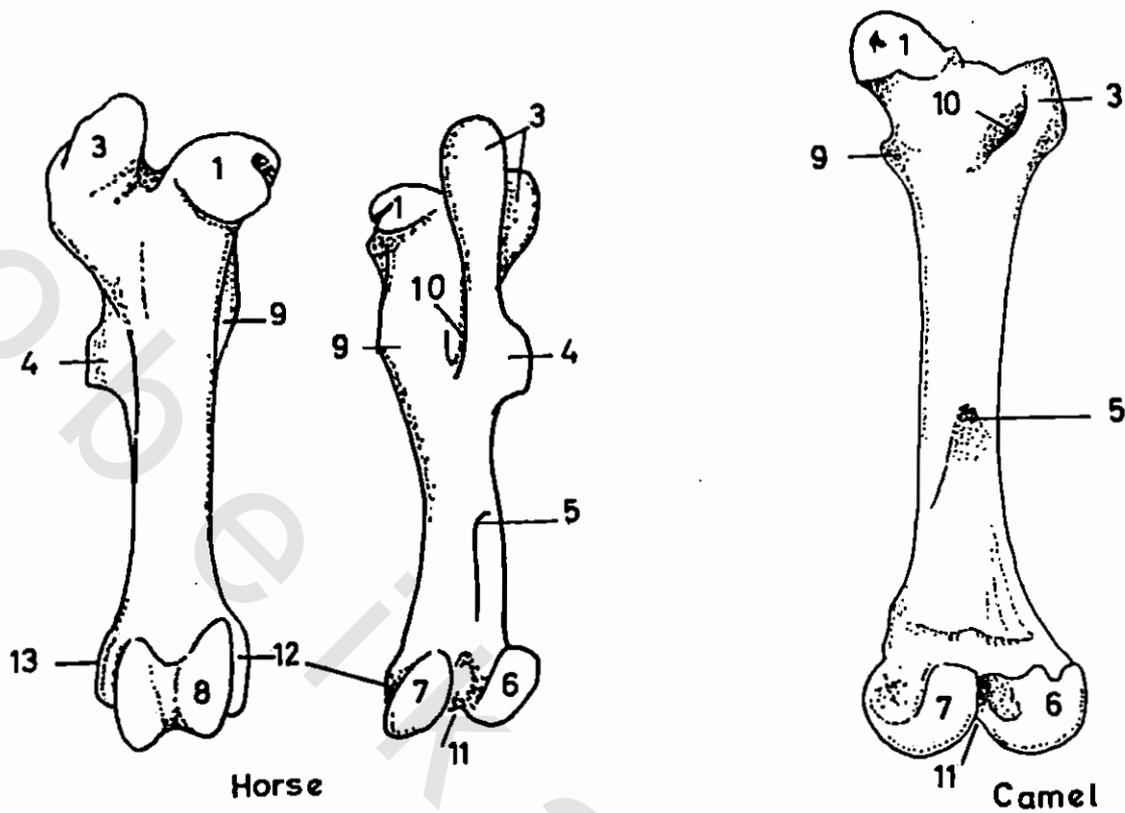


Fig. (29) Femur (Comparative)

- 1 head,
- 4 third trochanter,
- 7 medial condyle,
- 10 trochantric fossa,
- 13 lateral epicondyle

- 2 neck,
- 5 supracondyloid fossa,
- 8 trochlea,
- 11 intercondyloid fossa,
- 14 fabellae (dog).

- 3 trochanter major,
- 6 lateral condyle,
- 9 trochanter minor,
- 12 medial epicondyle,

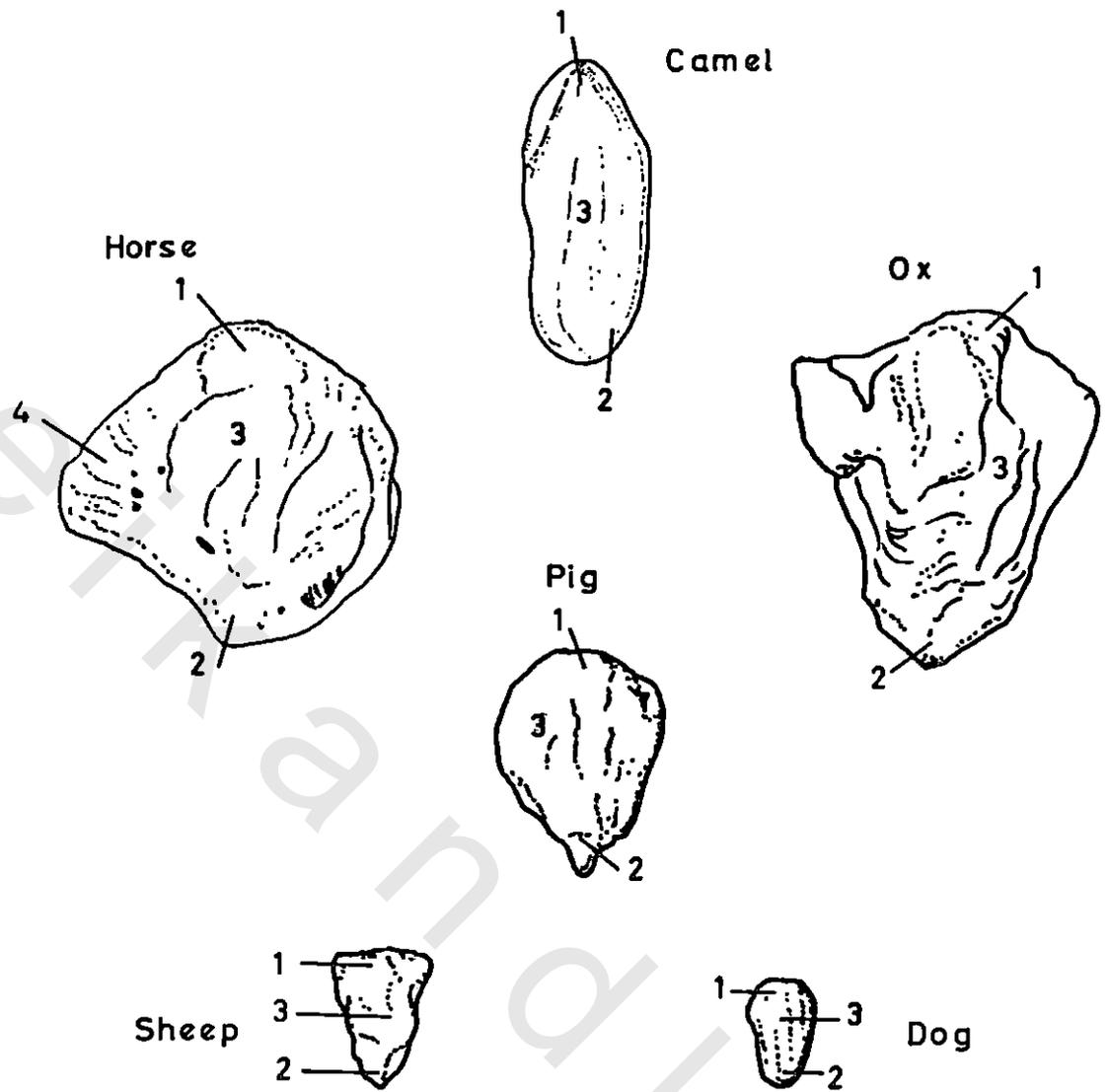


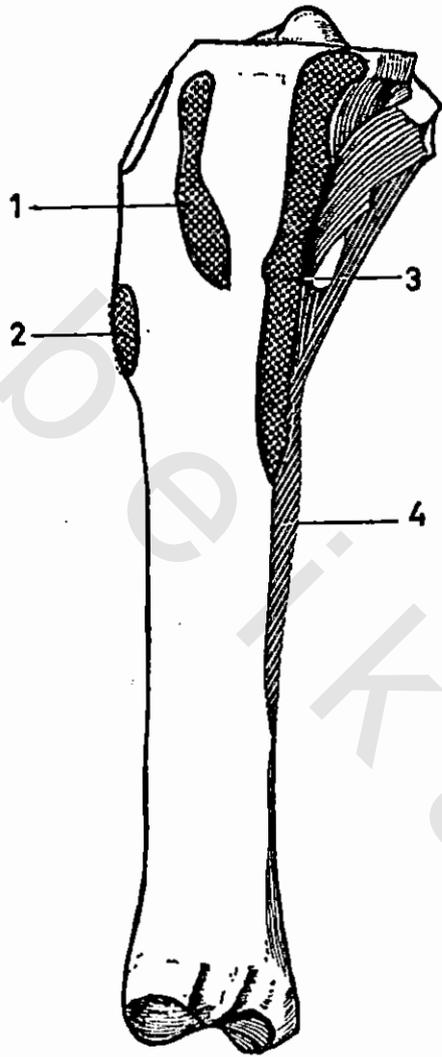
Fig. (30) Patella (Comparative)

1 base,

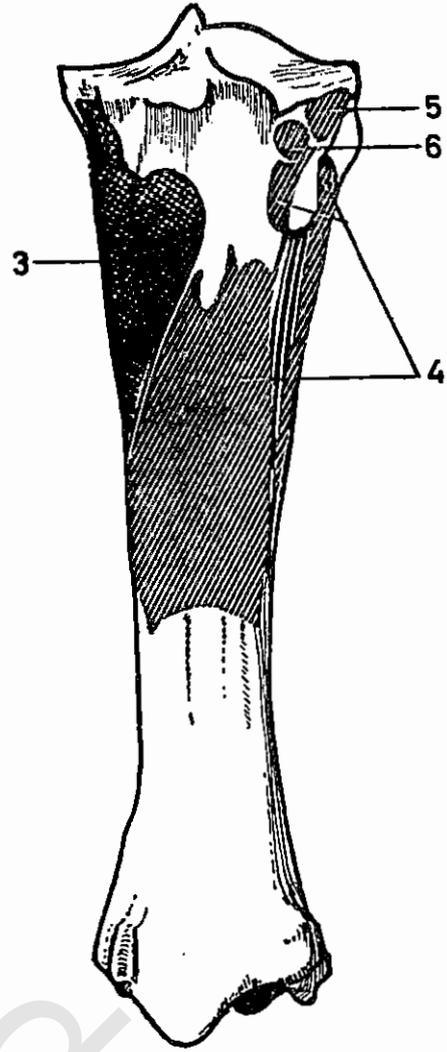
2 apex,

3 dorsal surface,

4 fibrocartilage.



MEDIAL VIEW

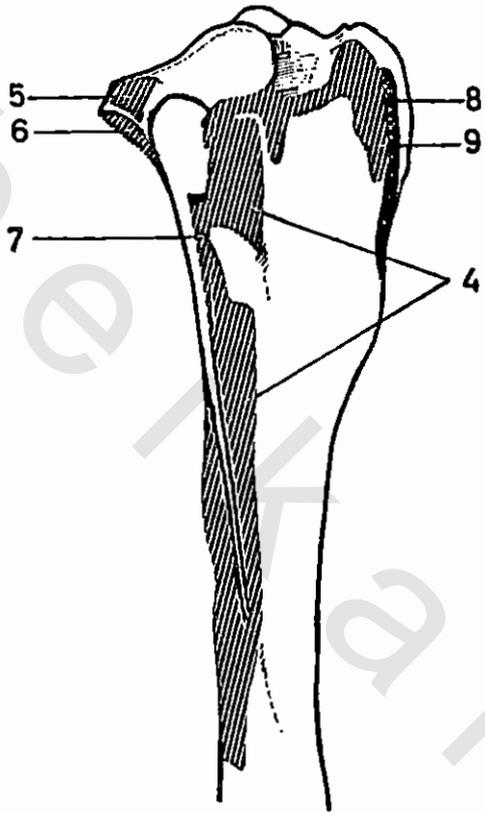


CAUDAL VIEW

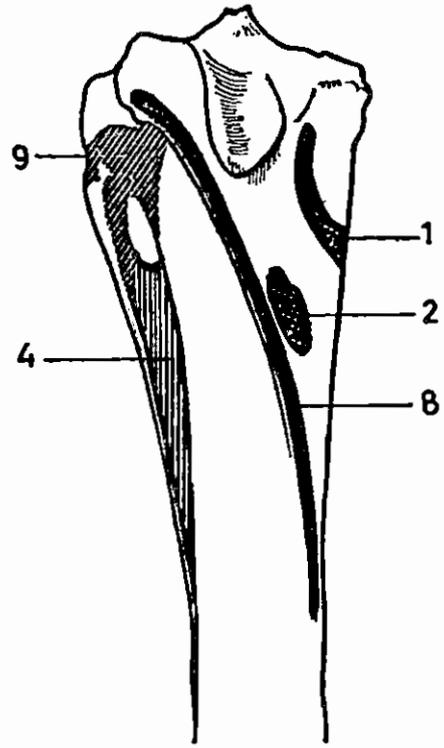
Fig. (31), (32) Tibia and fibula

- 1 M. gracilis,
- 3 M. popliteus,
- 5 M. tibialis caudalis,
- 7 M. peroneus longus,
- 9 M. tibialis cranialis.

- 2 M. semitendinosus,
- 4 M. flex. digit I (hallucis) longus,
- 6 M. flex. digitorum longus,
- 8 M. biceps femoris,



LATERAL VIEW



CRANIAL VIEW

Fig. (32)

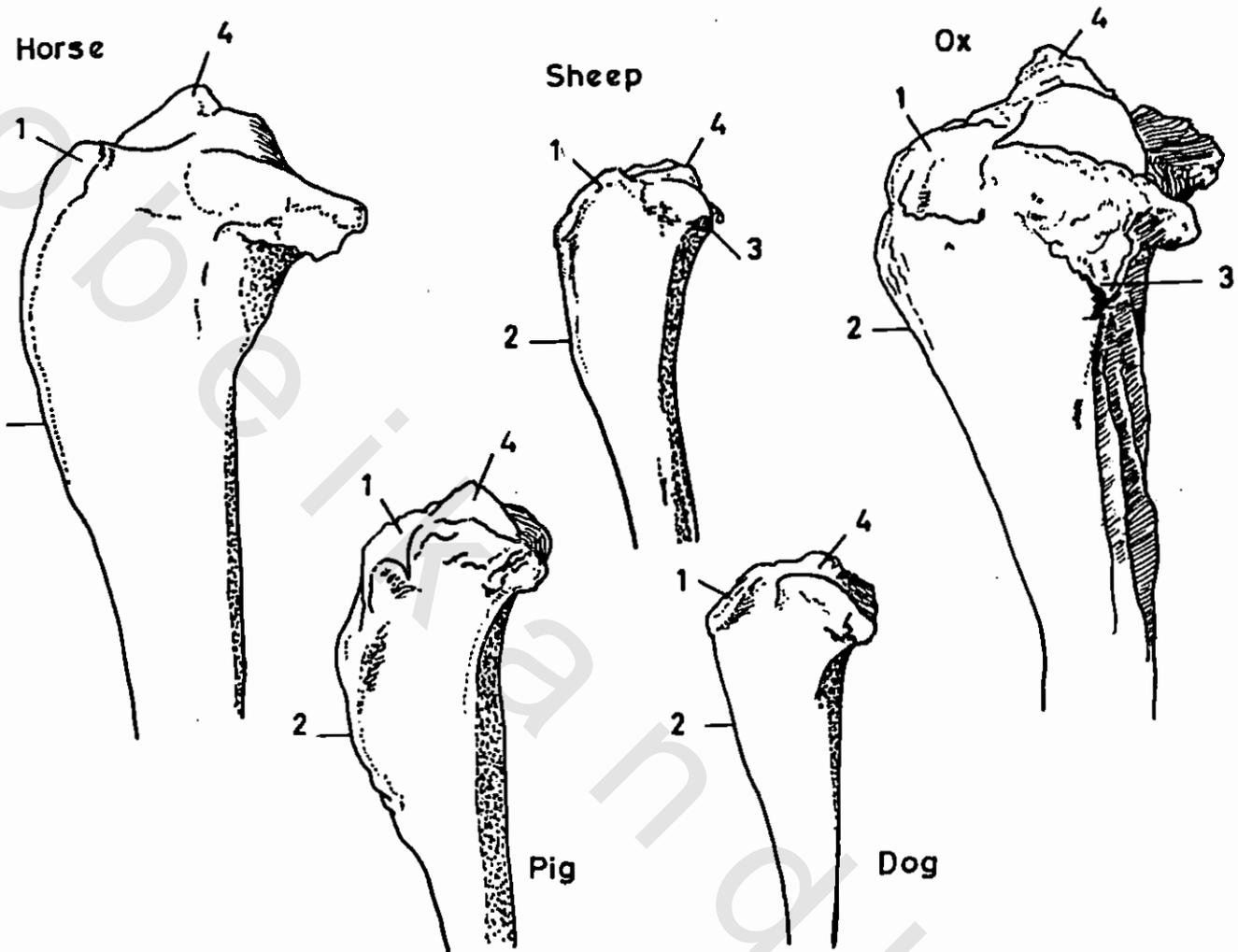


Fig. (33) Tibia (Comparative)

1 tibial tuberosity,  
3 head of fibula,

2 crest,  
4 spine.

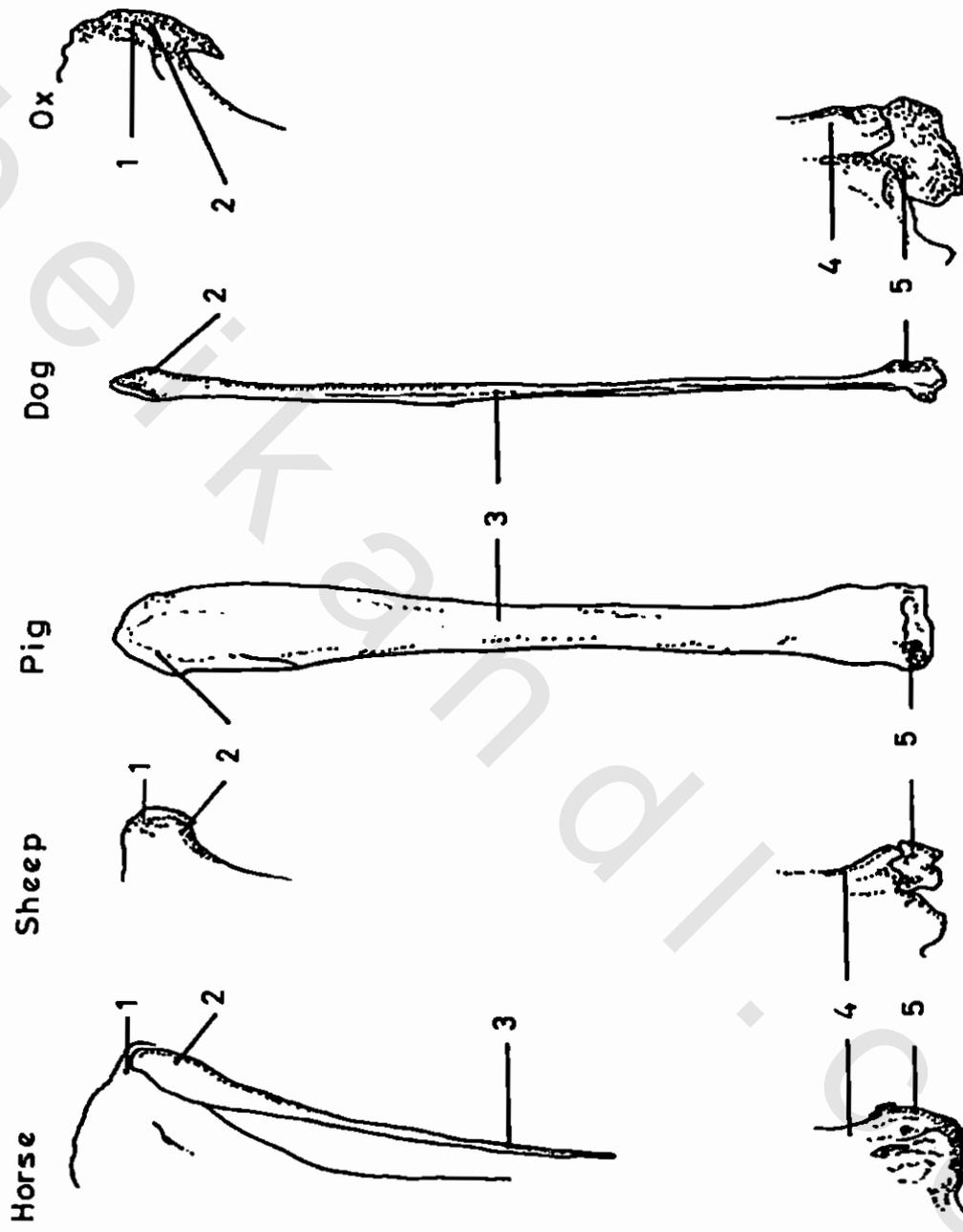


Fig. (34) Fibula (Comparative)

- 1 lateral condyle of tibia,
- 3 shaft,
- 5 lateral malleolus.
- 2 head of fibula,
- 4 tibia,

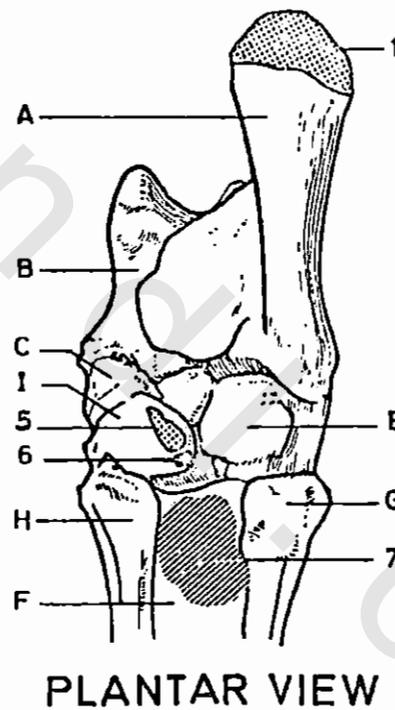
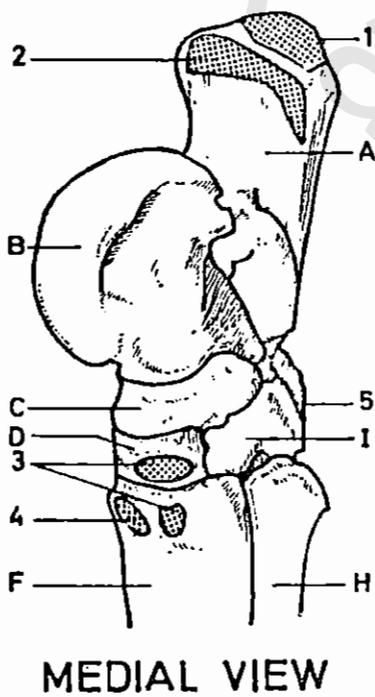
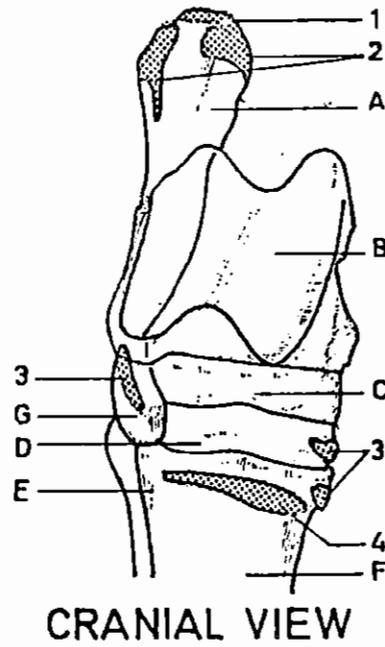
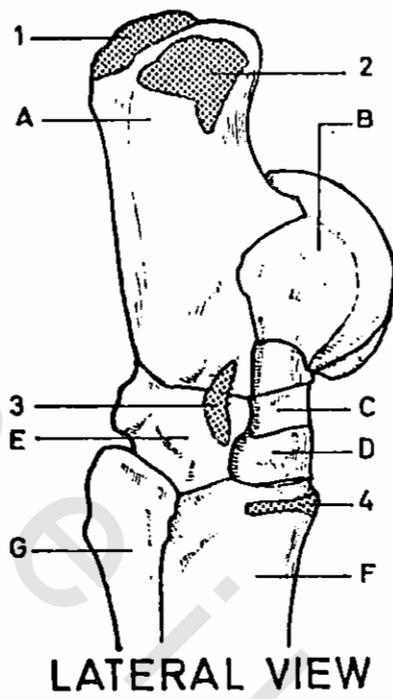


Fig. (35) Tarsal bones

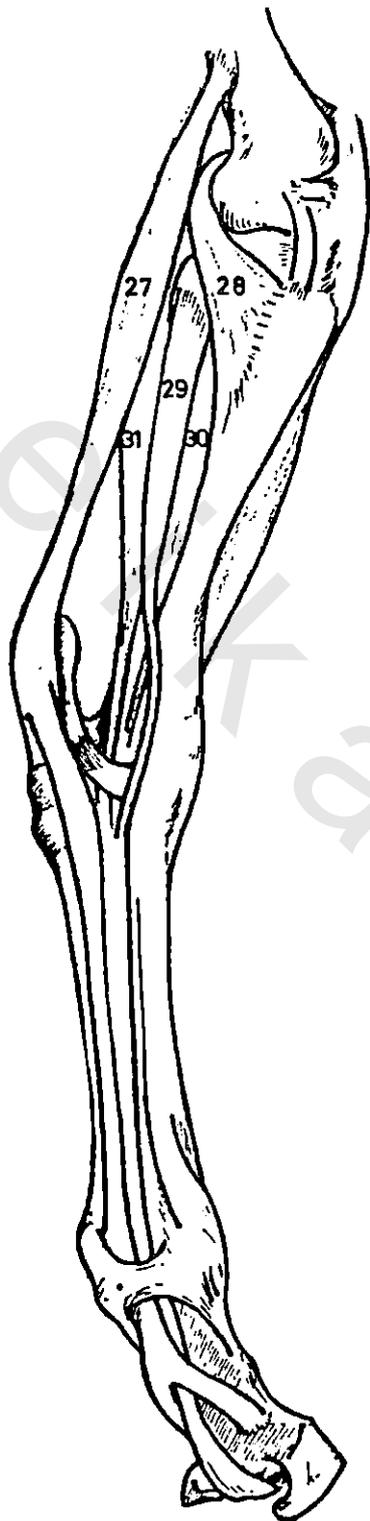
- 1 M. gastrocnemius,
- 3 M. peroneus tertius,
- 5 M. tibialis cranialis,
- 7 M. interosseus.

- A tuber calcanei,
- D third tarsal,
- G fourth metatarsal,

- B tibial tarsal,
- E fourth tarsal,
- H second metatarsal.,

- 2 Mm. plantaris, biceps & semitend.,
- 4 Mm. tibialis cranialis & 3,
- 6 M. flex. digit. profundus,

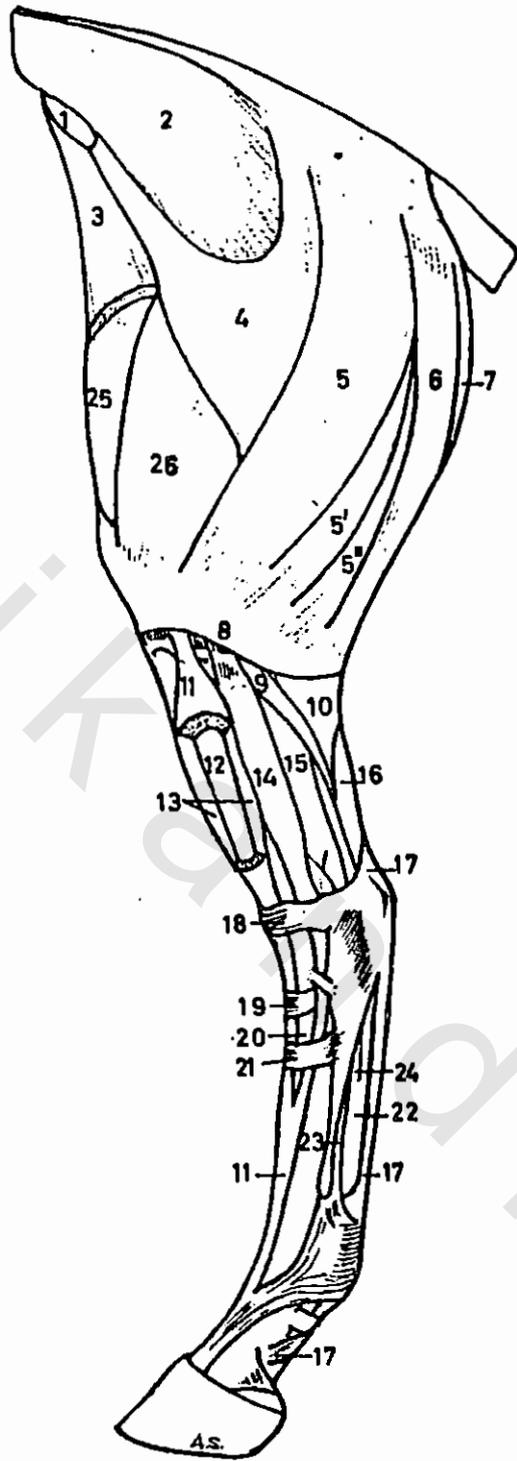
- C central tarsal,
- F third metatarsal,
- I first tarsal.



MEDIAL VIEW

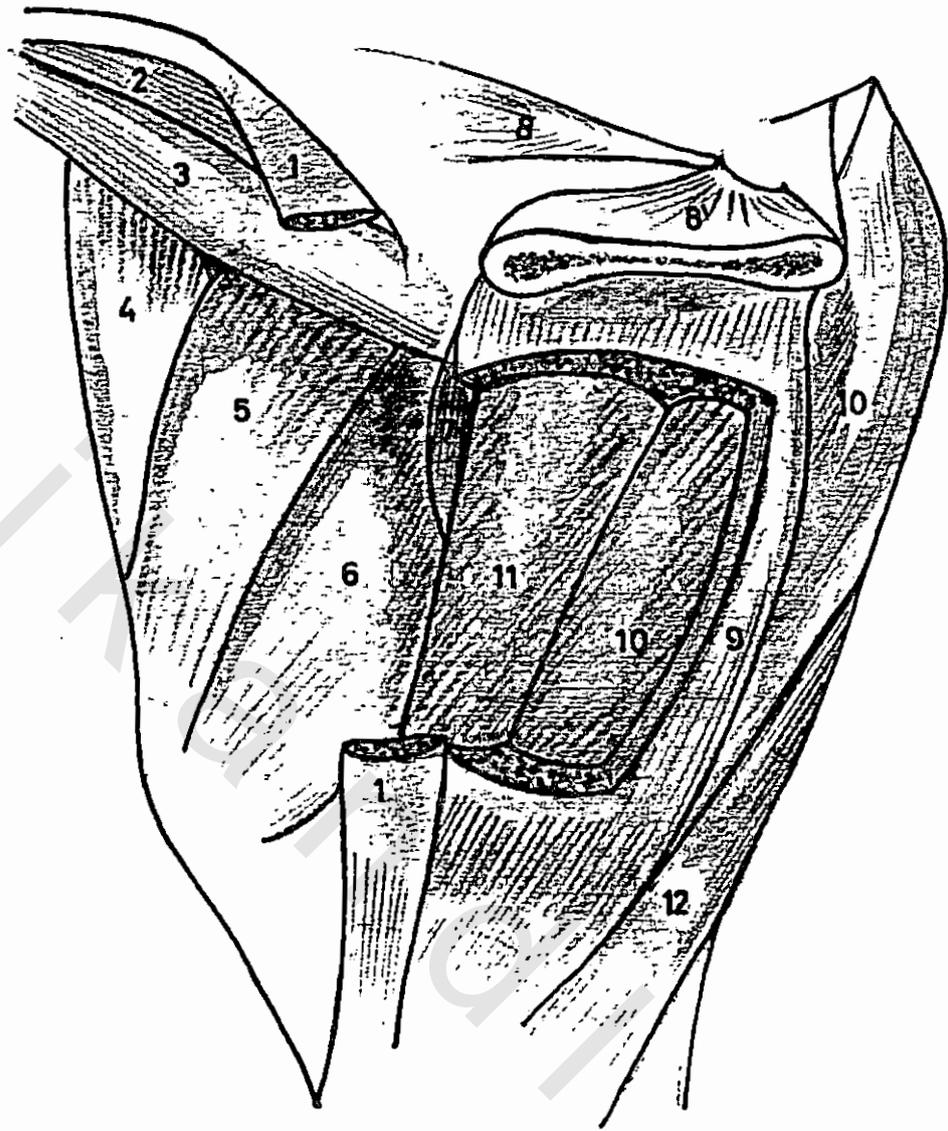
Fig. (36), (37) Muscles of the hind limb.  
(Medial and Lateral Views)

- 1 tuber coxae,
- 2 M. gluteus medius,
- 3 M. tensor fasciae latae,
- 4 M. gluteus superficialis,
- 5, 5', 5" M. biceps femoris,
- 6 M. semitendinosus,
- 7 M. semimembranosus,
- 8 Fascia cruris,
- 9 M. soleus,
- 10 M. gastrocnemius,
- 11 M. ext. digit. longus,
- 12 M. fibularis tertius,
- 13 M. tibialis cranialis,
- 14 M. ext. digit. lateralis,
- 15 M. flex. digiti I (hallucis) longus,
- 16 Achillis tendon
- 17 tendon of M. flex. digit. superficialis,
- 18 Lig. transversum cruris,
- 19 Lig. cruciatum,
- 20 M. ext. digit. brevis,
- 21 Lig. fundiforme tarsi,
- 22, 24 deep flexor tendon,
- 23 M. interosseus,
- 25 M. rectus femoris,
- 26 M. vastus lateralis,
- 27 M. flex. digit. superficialis,
- 28 M. popliteus,
- 29 M. flex. digit. longus,
- 30 M. flex. digiti I longus,
- 31 M. tibialis caudalis.



LATERAL VIEW

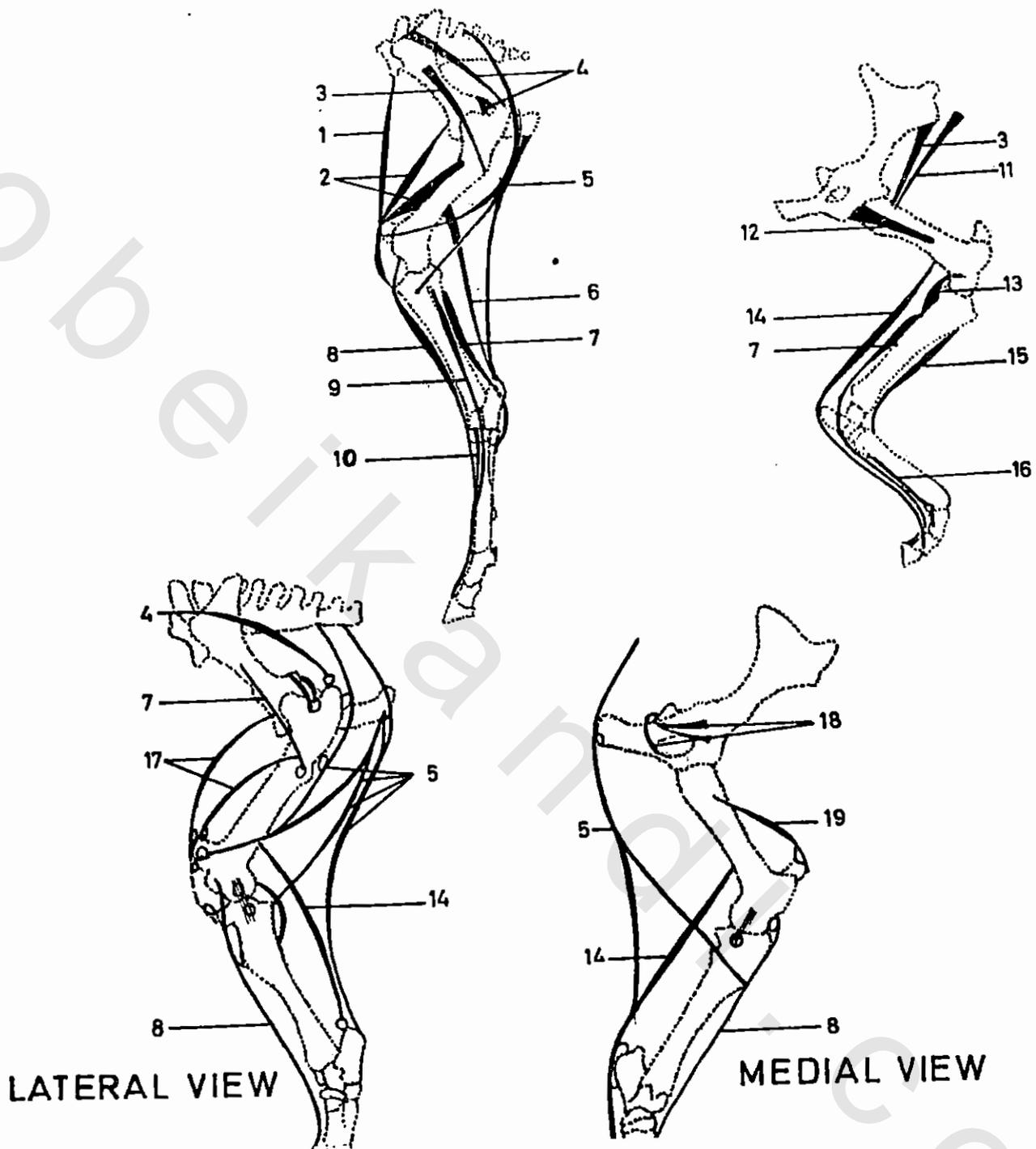
Fig. (37)



## MEDIAL VIEW

Fig. (38) Muscles of the thigh

- |                      |                                 |
|----------------------|---------------------------------|
| 1 M. sartorius,      | 2 M. psoas major,               |
| 3 M. iliacus,        | 4 M. tensor fasciae latae,      |
| 5 M. rectus femoris, | 6 M. vastus medialis,           |
| 7 M. pectineus,      | 8, 8' M. obturatorius internus, |
| 9 M. gracilis,       | 10 M. semimembranosus,          |
| 11 M. adductor,      | 12 M. semitendinosus.           |

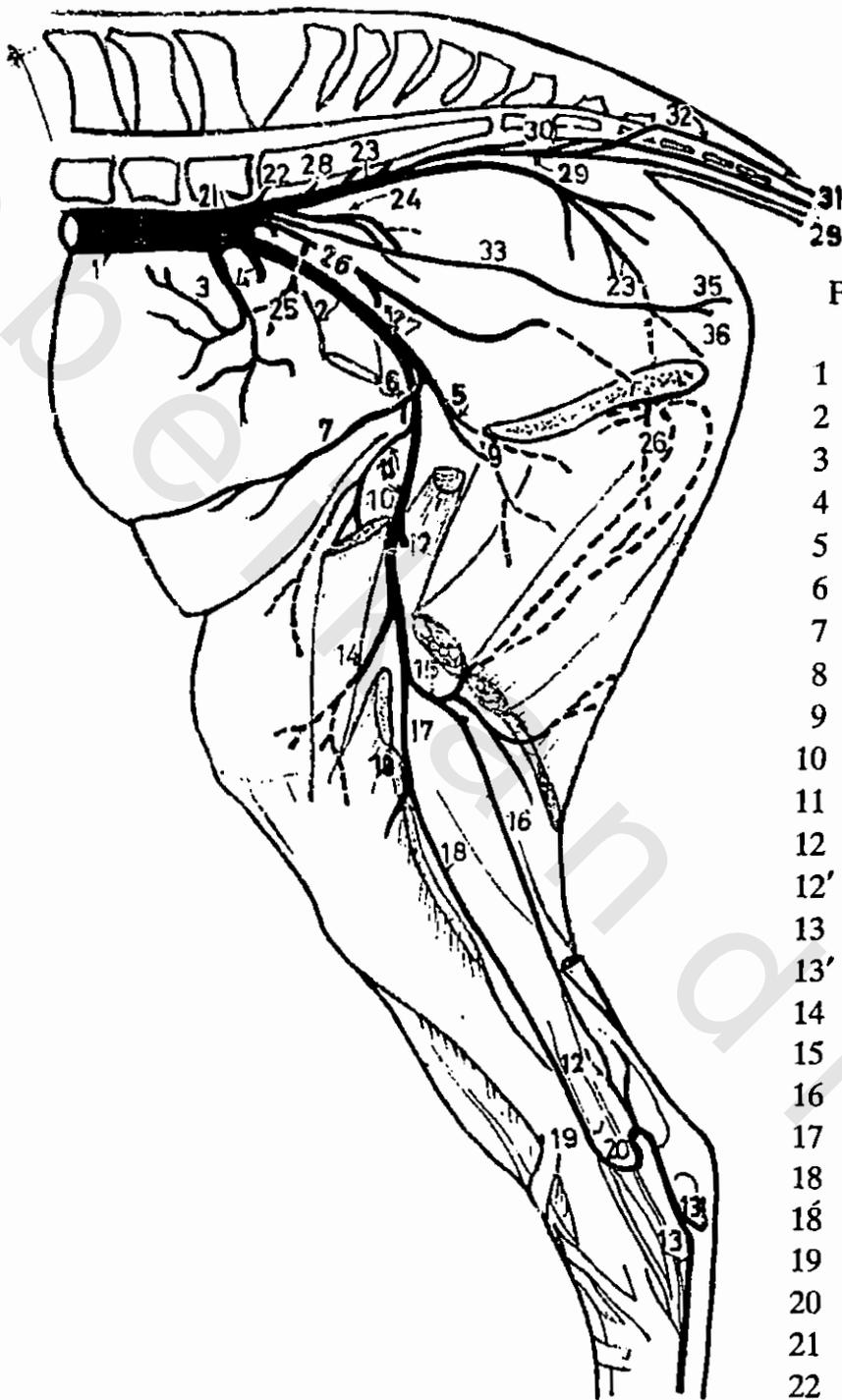


LATERAL VIEW

MEDIAL VIEW

Fig. (39) Hind limb (Muscles)

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>1 M. tensor fasciae latae,</li> <li>3 M. gluteus superficialis,</li> <li>5 M. biceps femoris,</li> <li>7 M. flex. digit. Profundus,</li> <li>9 M. ext. digit. lateralis,</li> <li>11 M. iliopsoas,</li> <li>13 M. popliteus,</li> <li>15 M. tibialis cranialis,</li> <li>17 M. quadriceps femoris,</li> <li>19 M. vastus intermedius.</li> </ul> | <ul style="list-style-type: none"> <li>2 Mm. vasti (lat., intermed., med.),</li> <li>4 M. gluteus medius,</li> <li>6 M. gastrocnemius,</li> <li>8 M. ext. digit. longus,</li> <li>10 M. ext. digit. brevis,</li> <li>12 M. adductor,</li> <li>14 M. flex. digit. superficialis,</li> <li>16 Suspensory ligament,</li> <li>18 M. obturatorius internus,</li> </ul> |
|---|---|



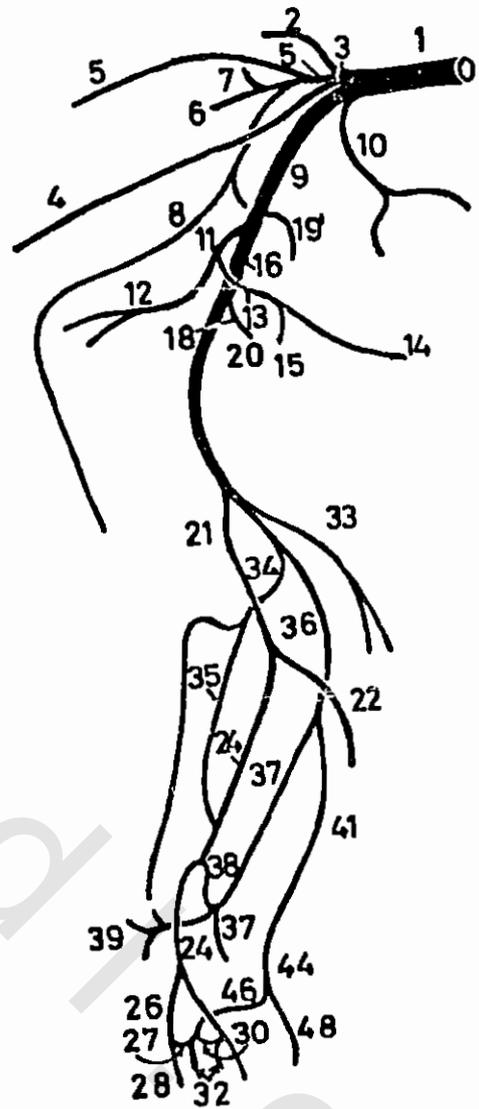
MEDIAL VIEW

Fig. (40) Arteries of the hind limb

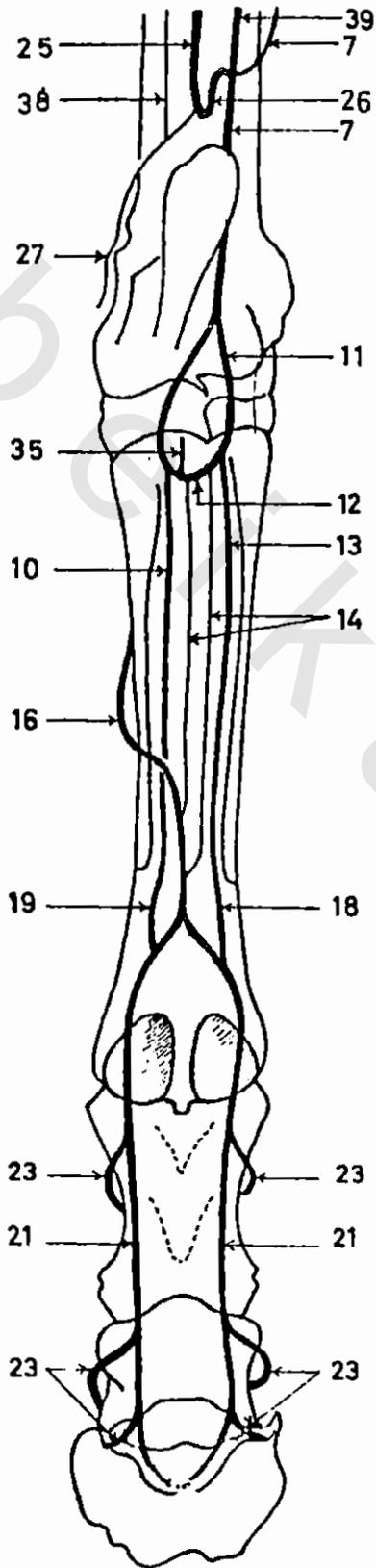
- |     |                                |     |                               |
|-----|--------------------------------|-----|-------------------------------|
| 1   | Aorta abdominalis,             | 11  | A. circumflexa femoris lat.,  |
| 2   | A. iliaca externa,             | 12  | A. saphena (cut),             |
| 3   | A. circumflexa ilium profunda, | 12' | R. caudalis,                  |
| 4   | A. uterina,                    | 13  | A. plantaris medialis,        |
| 5   | A. profunda femoris,           | 13' | A. plantaris lateralis,       |
| 6   | Truncus pudendoepigastricus,   | 14  | A. genus descendens,          |
| 7   | A. epigastrica caudalis,       | 15  | A. caudalis femoris distalis, |
| 8   | A. pudenda externa,            | 16  | A. comitans n. tibialis,      |
| 9   | A. circumflexa femoris med.,   | 17  | A. poplitea,                  |
| 10  | A. femoralis,                  | 18  | A. tibialis caudalis,         |
| 11  | A. circumflexa femoris lat.,   | 18  | A. tibialis cranialis,        |
| 12  | A. saphena (cut),              | 19  | A. malleolaris caud. lat.,    |
| 12' | R. caudalis,                   | 20  | R. anastom. with A. saphena,  |
| 13  | A. plantaris medialis,         | 21  | A. iliaca interna,            |
| 13' | A. plantaris lateralis,        | 22  | A. lumbalis VI,               |
| 14  | A. genus descendens,           | 23  | A. glutaea caudalis,          |
| 15  | A. caudalis femoris distalis,  | 24  | A. glutaea cranialis,         |
| 16  | A. comitans n. tibialis,       | 25  | A. iliolumbalis,              |
| 17  | A. poplitea,                   | 26  | A. obturatoria,               |
| 18  | A. tibialis caudalis,          | 27  | A. iliocofemoralis,           |
| 18  | A. tibialis cranialis,         | 28  | Rr. sacrales,                 |
| 19  | A. malleolaris caud. lat.,     | 29  | A. caudalis mediana,          |
| 20  | R. anastom. with A. saphena,   | 30  | Rr. caudales,                 |
| 21  | A. iliaca interna,             | 31  | A. caudalis ventrolateralis,  |
| 22  | A. lumbalis VI,                | 32  | A. caudalis dorsolat.,        |
| 23  | A. glutaea caudalis,           | 33  | A. pudenda interna,           |
| 24  | A. glutaea cranialis,          | 34  | A. umbilicalis,               |
| 25  | A. iliolumbalis,               | 35  | A. perinealis ventralis,      |
| 26  | A. obturatoria,                | 36  | A. bulbi vestibuli.           |
| 27  | A. iliocofemoralis,            |     |                               |
| 28  | Rr. sacrales,                  |     |                               |
| 29  | A. caudalis mediana,           |     |                               |
| 30  | Rr. caudales,                  |     |                               |
| 31  | A. caudalis ventrolateralis,   |     |                               |
| 32  | A. caudalis dorsolat.,         |     |                               |
| 33  | A. pudenda interna,            |     |                               |
| 34  | A. umbilicalis,                |     |                               |
| 35  | A. perinealis ventralis,       |     |                               |
| 36  | A. bulbi vestibuli.            |     |                               |

Fig. (41) Arteries of the hind limb (Diagram)

- 1 Aorta abdominalis,
- 2 A. sacralis mediana,
- 3 A. iliaca interna,
- 4 A. pudenda interna,
- 5 A. glutaeca caudalis.
- 6 A. glutaeca cranialis,
- 7 A. iliolumbalis,
- 8 A. obturatoria,
- 9 A. iliaca externa,
- 10 A. circumflexa ilium profunda,
- 11 A. profunda femoris,
- 12 A. circumflexa femoris medialis,
- 13 Truncus pudendoepigastricus,
- 14 A. epigastrica caudalis,
- 15 A. pudenda externa,
- 16 A. femoralis,
- 18 A. circumflexa femoris lateralis,
- 19 A. iliocofemoralis,
- 20 R. descendens,
- 21 A. saphena,
- 22 R. cranialis,
- 24 R. caudalis of 21,
- 26 A. plantaris lateralis,
- 28 R. superficialis,
- 30 R. profundus,
- 27 & 30 Arcus plantaris profundus,
- 33 A. genu descendens,
- 35 A. comitans n. tibialis,
- 37 A. tibialis caudalis,
- 39 A. malleolaris caudalis lateralis,
- 44 A. dorsalis pedis,



- 27 R. profundus,
- 29 A. plantaris medialis,
- 31 R. superficialis,
- 32 Aa. metatarsae plant II-IV,
- 34 A. caudalis femoris dis.
- 36 A. poplitea,
- 38 R. anastom. with A. saphena
- 41 A. tibialis cranialis,
- 48 Aa. metatarsae dorsales II-IV.



PLANTAR VIEW

Fig. (42), (43)

Arteries of the metatarsus and digits

- 7 R. caudalis of A. saphena,
- 10 R. superficialis of A. plantaris lateralis,
- 11 A. plantaris medialis,
- 12 Its R. profundus,
- 13 Its R. superficialis,
- 14 Aa. metatarsae plantares II, III,
- 16 R. perforantis distalis,
- 18, 19 Aa. digit. plantares communes II-III,
- 21 A. digit. plantaris (propria III) medialis, lat.,
- 23 R. phalangis prox., mediae, and distalis,
- 25 A. tibialis caudalis,
- 26 R. anastomoticus from A. saphena,
- 28 A. tibialis cranialis,
- 31 A. dosalis pedis,
- 35 A. tarsea perforans distalis,
- 37 A. metatarsae dorsalis,
- 38 Anastomotic branch from A. caudalis femoris dis
- 39 A. comitans N. tibialis,
- 27 A. malleolaris caudalis lateralis.

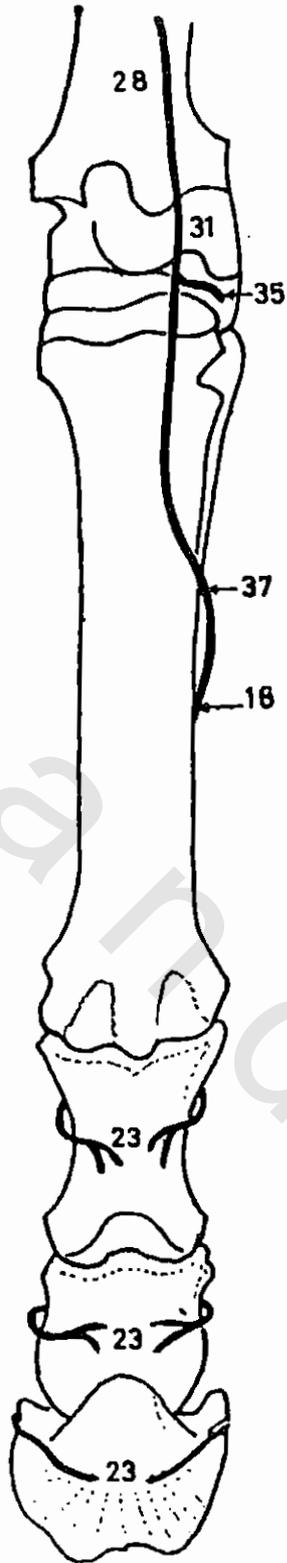


Fig. (43) Arteris of the metatarsus and digits (Dorsal View)

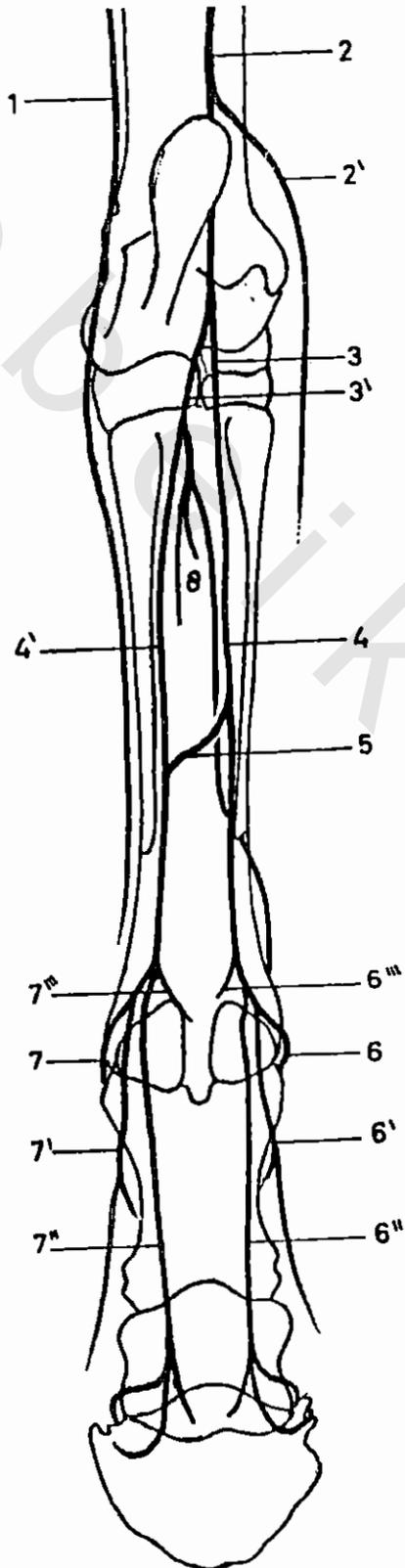


Fig. (44) Nerves of the metatarsus and digits (Plantar View)

- 1 N. cutaneus surae caud. lat.,
- 2 N. tibialis,
- 2' R. cutaneus tarsalis medialis,
- 3 N. plantaris medialis,
- 3' N. plantaris lateralis,
- 4 N. metatarsus plan. medialis,
- 4' N. metatarsus plan. lateralis,
- 5 R. communicans,
- 6 R. dorsalis,
- 6' R. intermedius,
- 6'' R. plantaris,
- 6''' R. caudalis,
- 7 R. dorsalis,
- 7' R. intermedius,
- 7'' R. plantaris,
- 7''' R. caudalis,
- 8 Rr. musculares.

PLANTAR VIEW

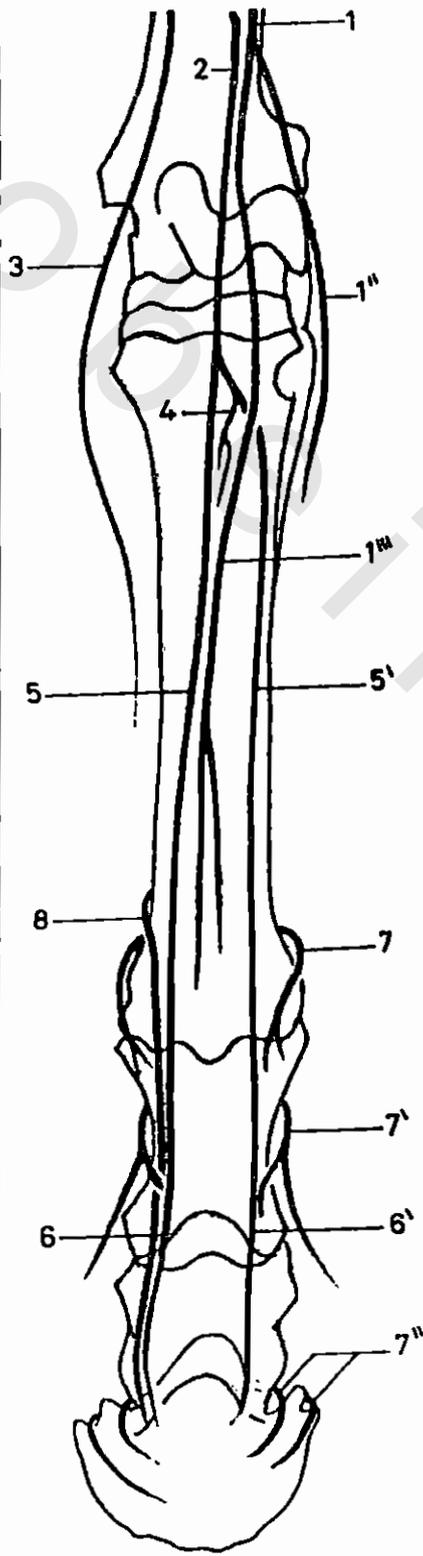
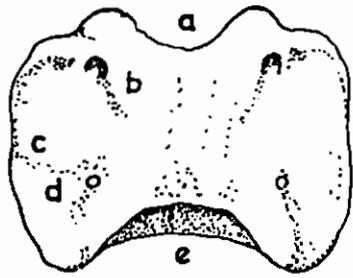
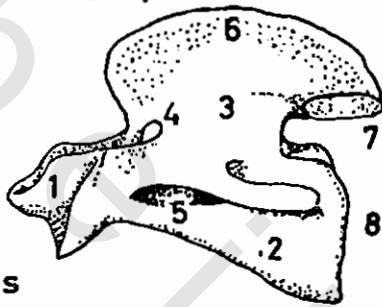


Fig. (45) Nerves of the metatarsus and digits (Dorsal View)

- 1 N. fibularis superficialis,
- 1' Its medial branch,
- 1'' Its lateral branch,
- 1''' Its dorsal branch,
- 2 N. fibularis profundus,
- 3 N. saphenus,
- 4 Branch for M. ext. digit. brevis,
- 5 N. metatarsus dorsalis medialis,
- 5' N. metatarsal dorsalis lateralis,
- 6 N. digitalis dorsalis medialis,
- 6' N. digitalis dorsalis lateralis,
- 7 R. dorsalis,
- 7' a branch from R. intermedius,
- 7'' a branch from R. plantaris.



Atlas  
(dorsal view)

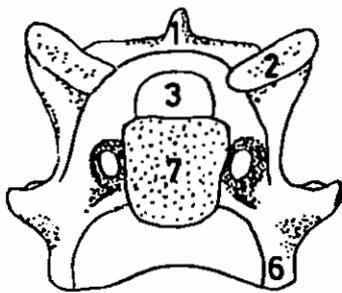


Axis  
(lateral view)

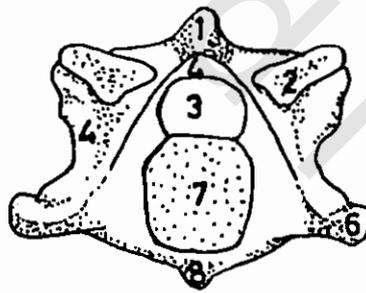
Fig. (46) Atlas and axis of the horse  
(Cervical Vertebrae)

a cranial articular surface,  
b alar foramen,  
c wing of atlas,  
d foramen transversarium,  
e caudal articular surface.

1 dens (odontoid process),  
2 body,  
3 arch,  
4 intervertebral foramen,  
5 foramen transversarium,  
6 spine,  
7 articular facet,  
8 caudal articular surface.



C 6 (cranial view)



C 7

C6, C7 (Cervical Vertebrae)

1 dorsal spine,  
3 vertebral foramen,  
5 for. transversarium,  
7 body,

2 cranial articular surface,  
4 arch,  
6 transverse process,  
8 vertebral spine.

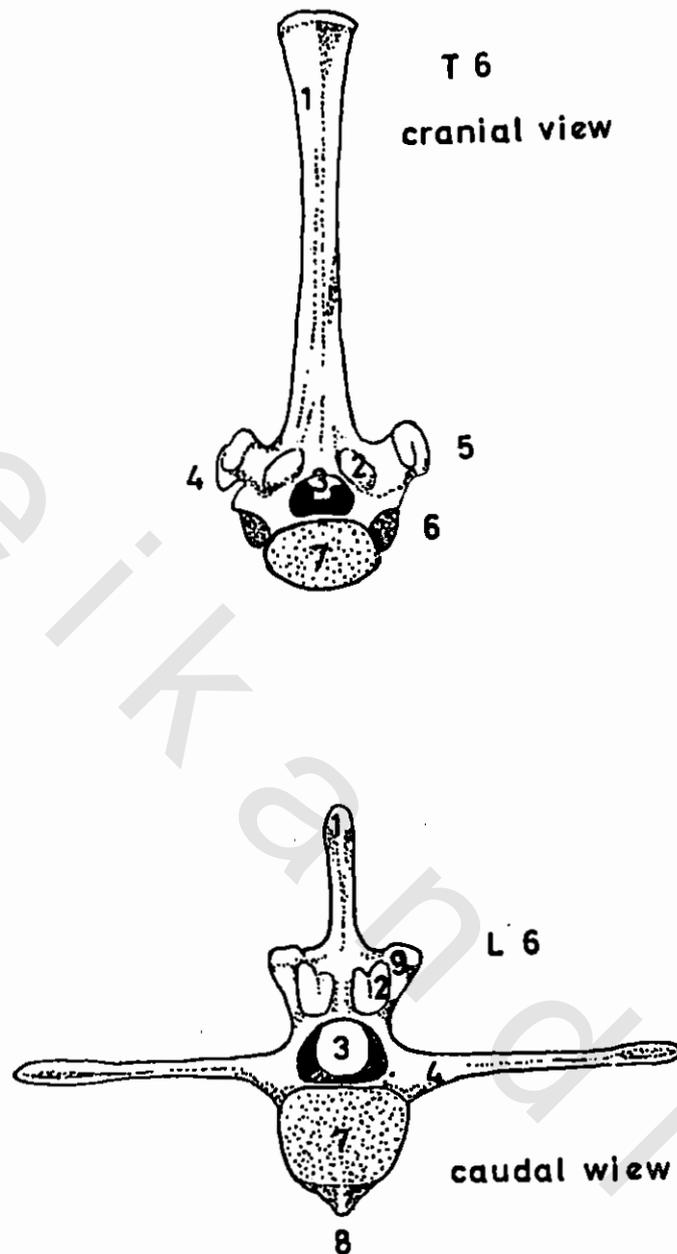


Fig. (47) Thoracic and lumbar vertebrae of the horse

- |  |                       |
|--|-----------------------|
| 1 dorsal spine,                                | 2 articular facet,    |
| 3 vertebral foramen,                           | 4 transverse process, |
| 5 facet for articulation with tubercle of rib, | 6 costal facet,       |
| 7 body,  | 8 ventral spine,      |
| 9 mammillary process.                          |                       |

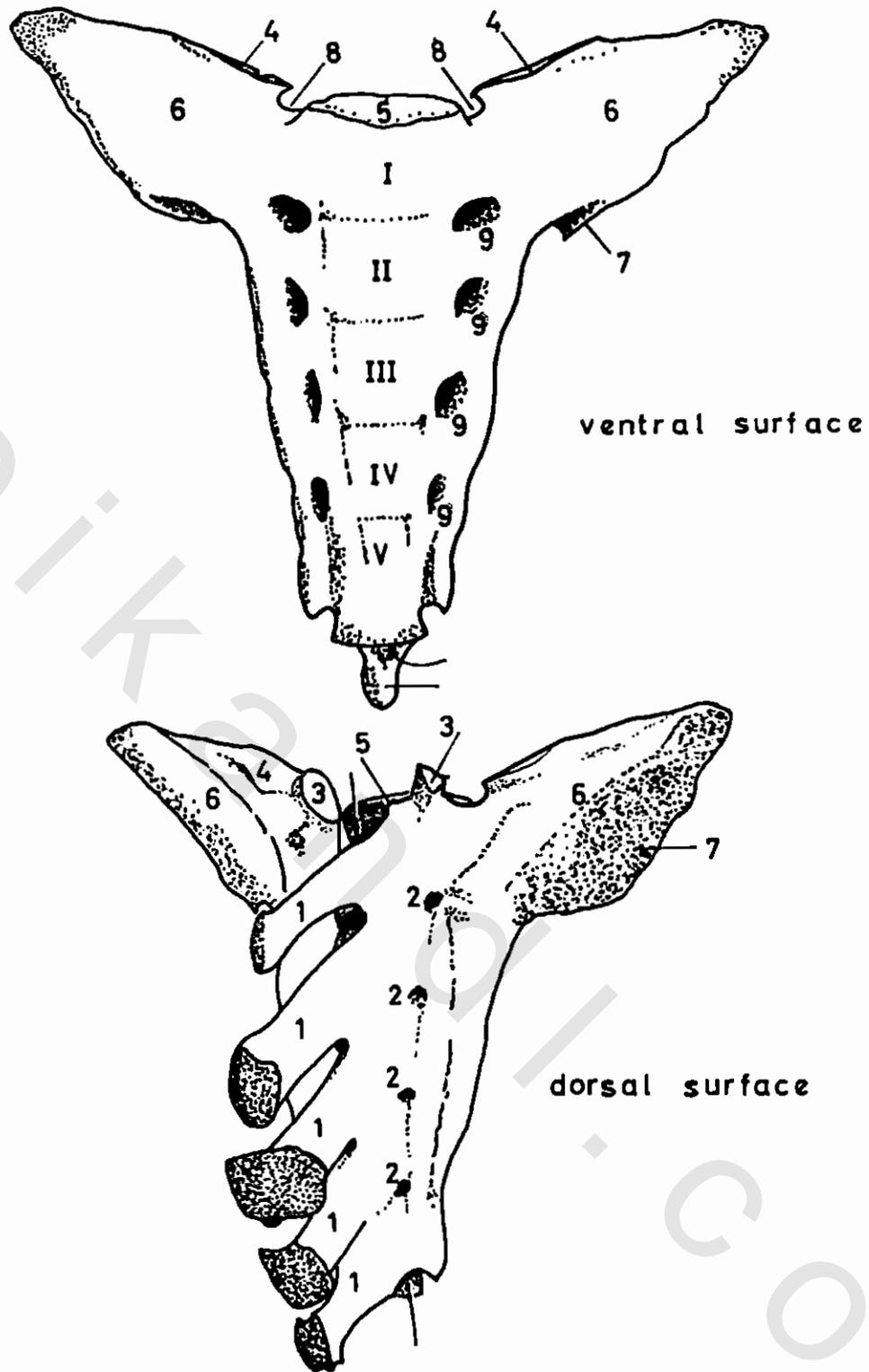


Fig. (48) Sacrum

- |  |  |
|--|--|
| 1 spinous process                      | 2 dorsal sacral foramina,                            |
| 3 articular processes,                 | 4 surface of wings for articulation, with transverse |
| 5 body of first sacral vertebra,       | process of last lumbar vertebrae,                    |
| 6 wings,                               | 7 articular surface,                                 |
| 8 notches,                             | 9 ventral sacral foramina,                           |
| I-V bodies of original five vertebrae, |  |
| Arrows point to sacral canal.          |  |

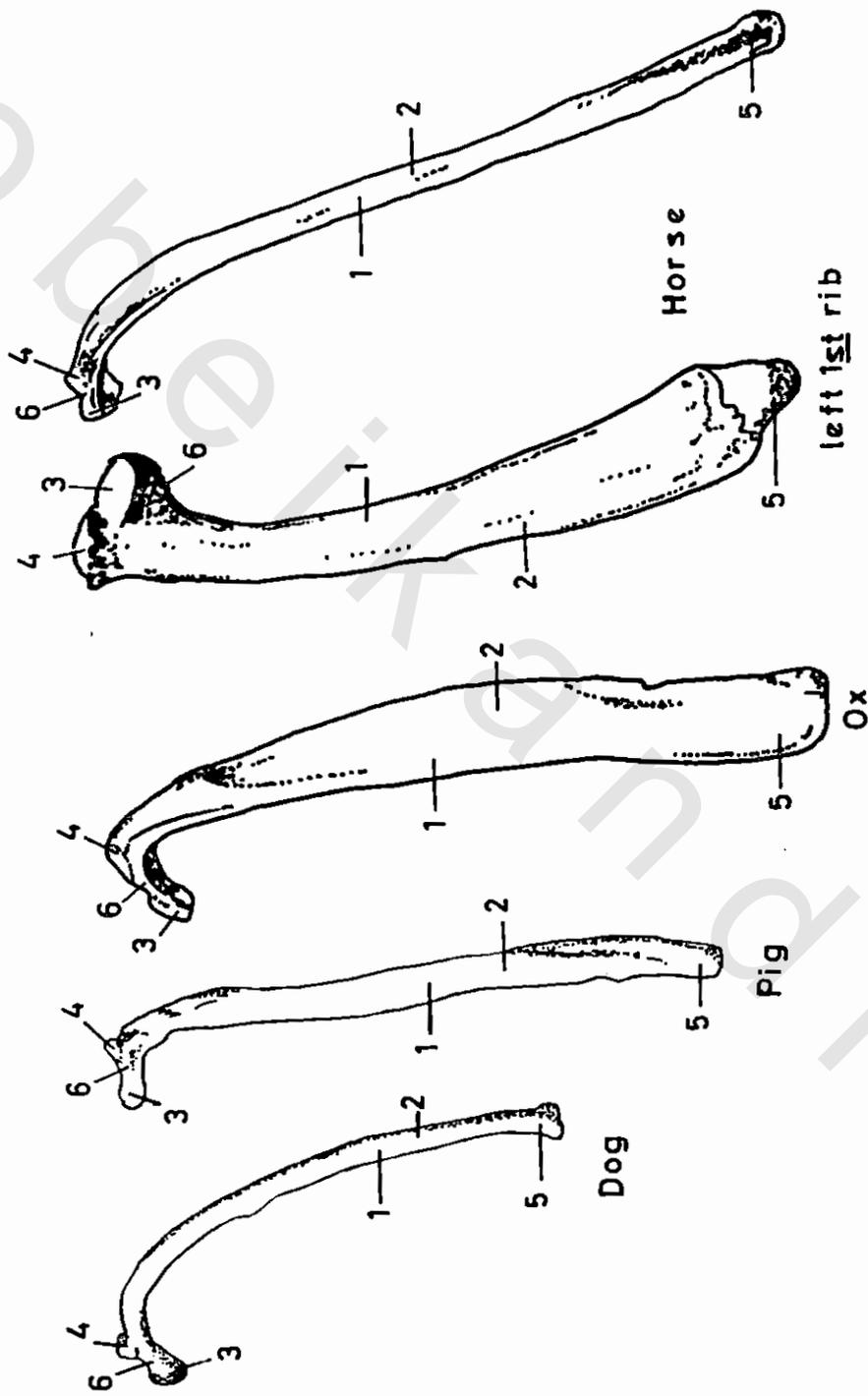


Fig. (49) Ribs (Comparative)

1 cranial border,  
3 head,  
5 sternal extremity,

2 caudal border,  
4 tubercle,  
6 neck.

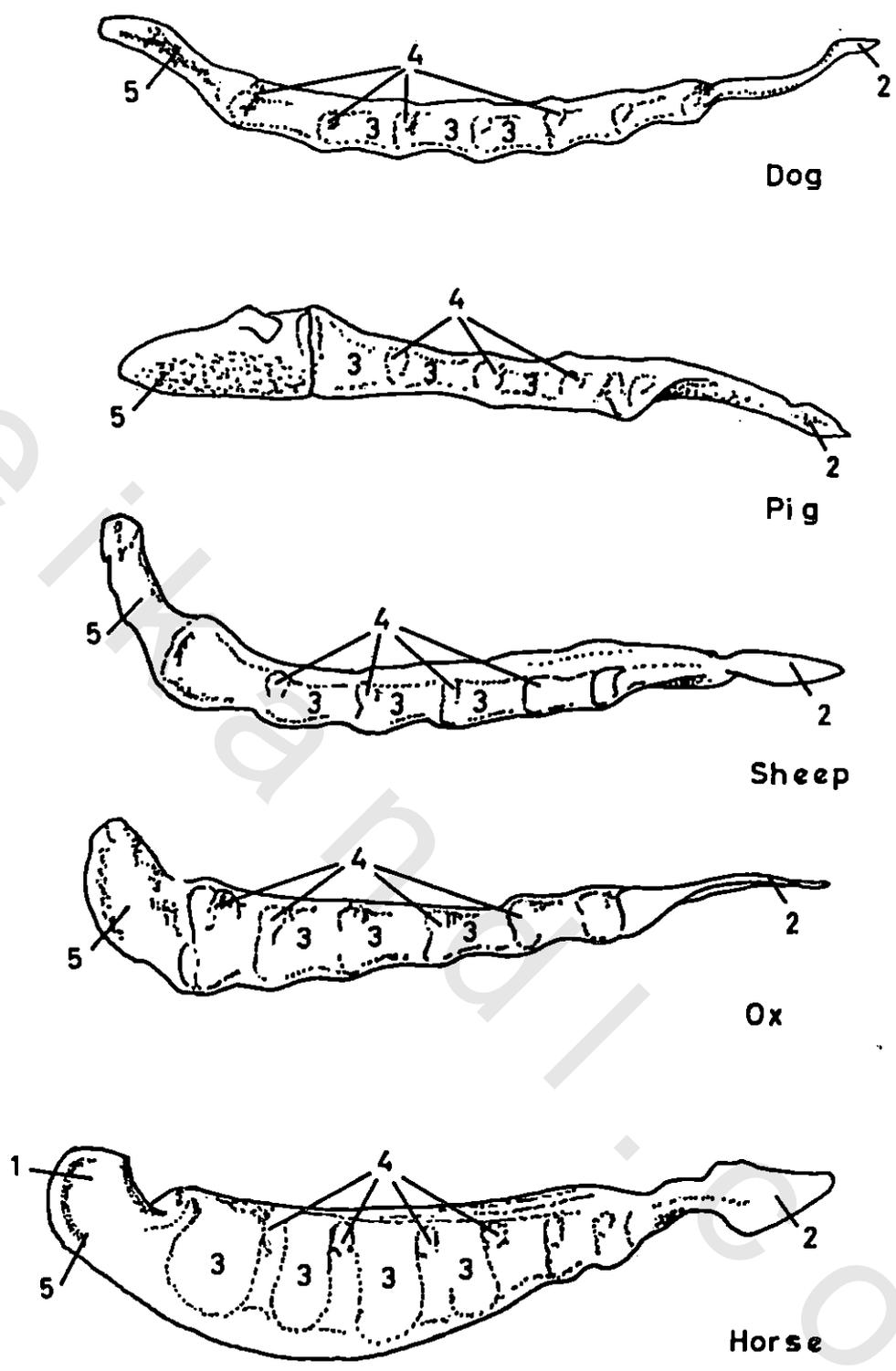


Fig. (50) Sternum (Comparative)

- |                         |                      |
|-------------------------|----------------------|
| 1 cariniform cartilage, | 2 xiphoid cartilage, |
| 3 sternbrae,            | 4 costal facets,     |
| 5 manubrium sterni.     |                      |

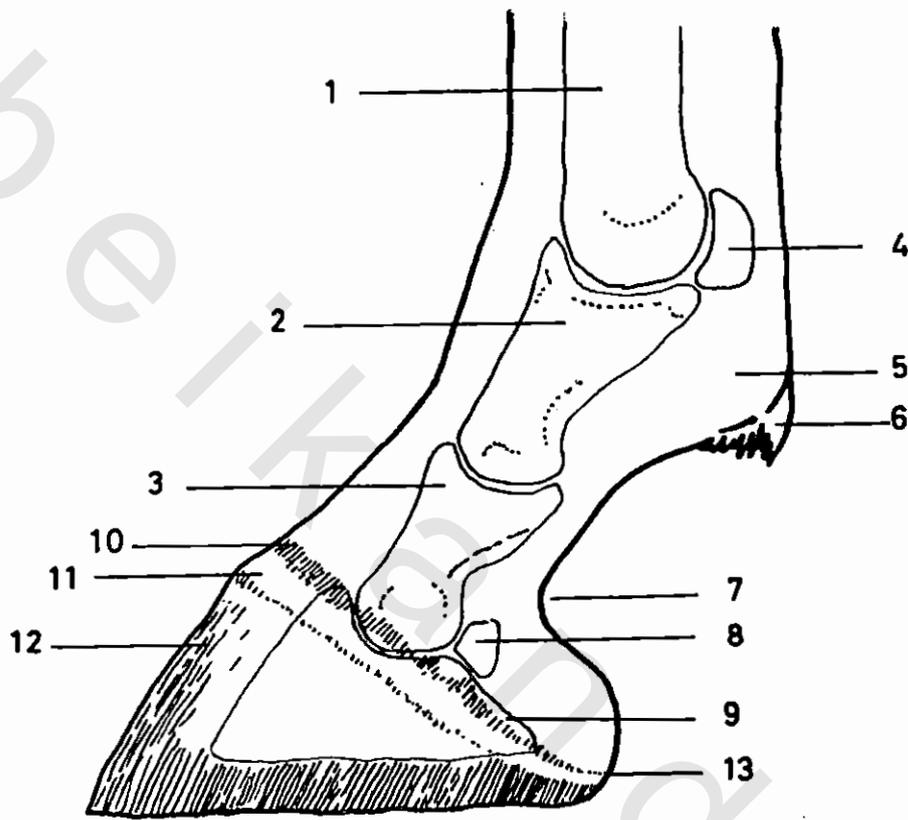


Fig. (51) Parts of the hoof of the horse

- |                    |                      |
|--------------------|----------------------|
| 1 metacarpal III,  | 2 proximal phalanx,  |
| 3 middel phalanx,  | 4 proximal sesamoid, |
| 5 fetlock,         | 6 ergot,             |
| 7 pastern,         | 8 navicular,         |
| 9 distal sesamoid, | 10 coronet,          |
| 11 periople,       | 12 wall,             |
| 13 heel.           |                      |

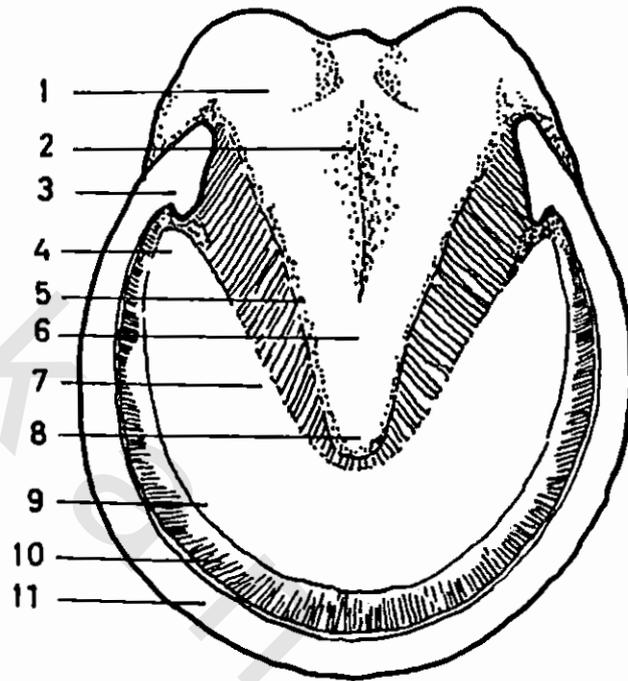


Fig. (52) plantar surface of the hoof

- |    |                              |    |                         |
|----|------------------------------|----|-------------------------|
| 1  | bulb,                        | 2  | central sulcus of frog, |
| 3  | angle of wall,               | 4  | angle of sole,          |
| 5  | bars,                        | 6  | frog,                   |
| 7  | sole,                        | 8  | apex of frog,           |
| 9  | white line (zona lamellata), | 10 | laminae of wall,        |
| 11 | wall.                        |    |                         |

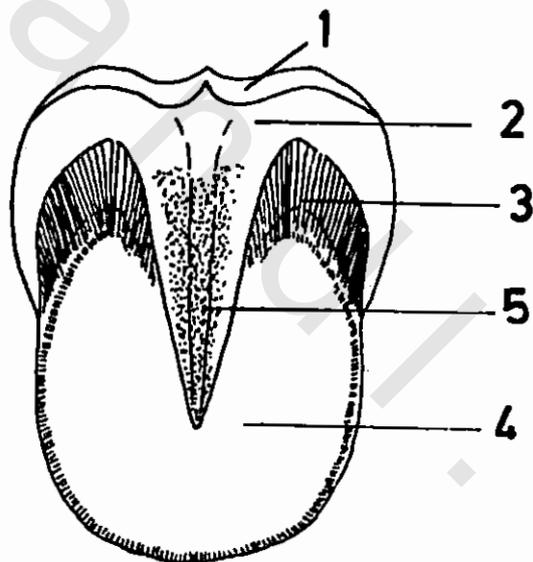
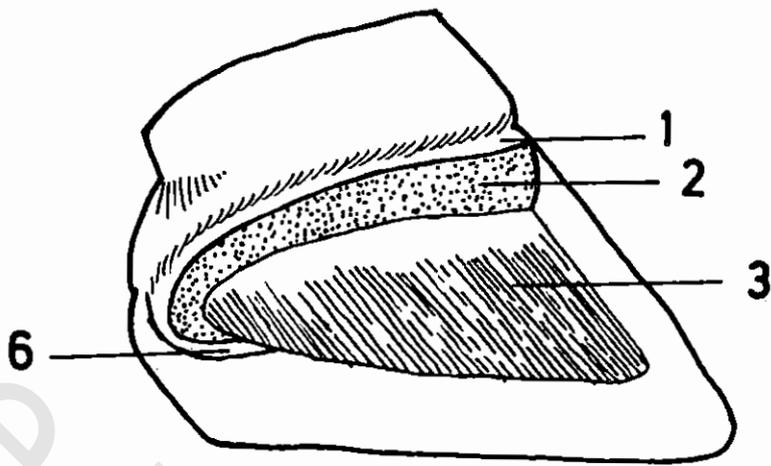


Fig. (53) Corium of the hoof

- 1 perioplic corium,
- 3 corium of the wall,
- 5 corium of the frog,

- 2 coronary corium,
- 4 corium of the sole,
- 6 bulbar corium.

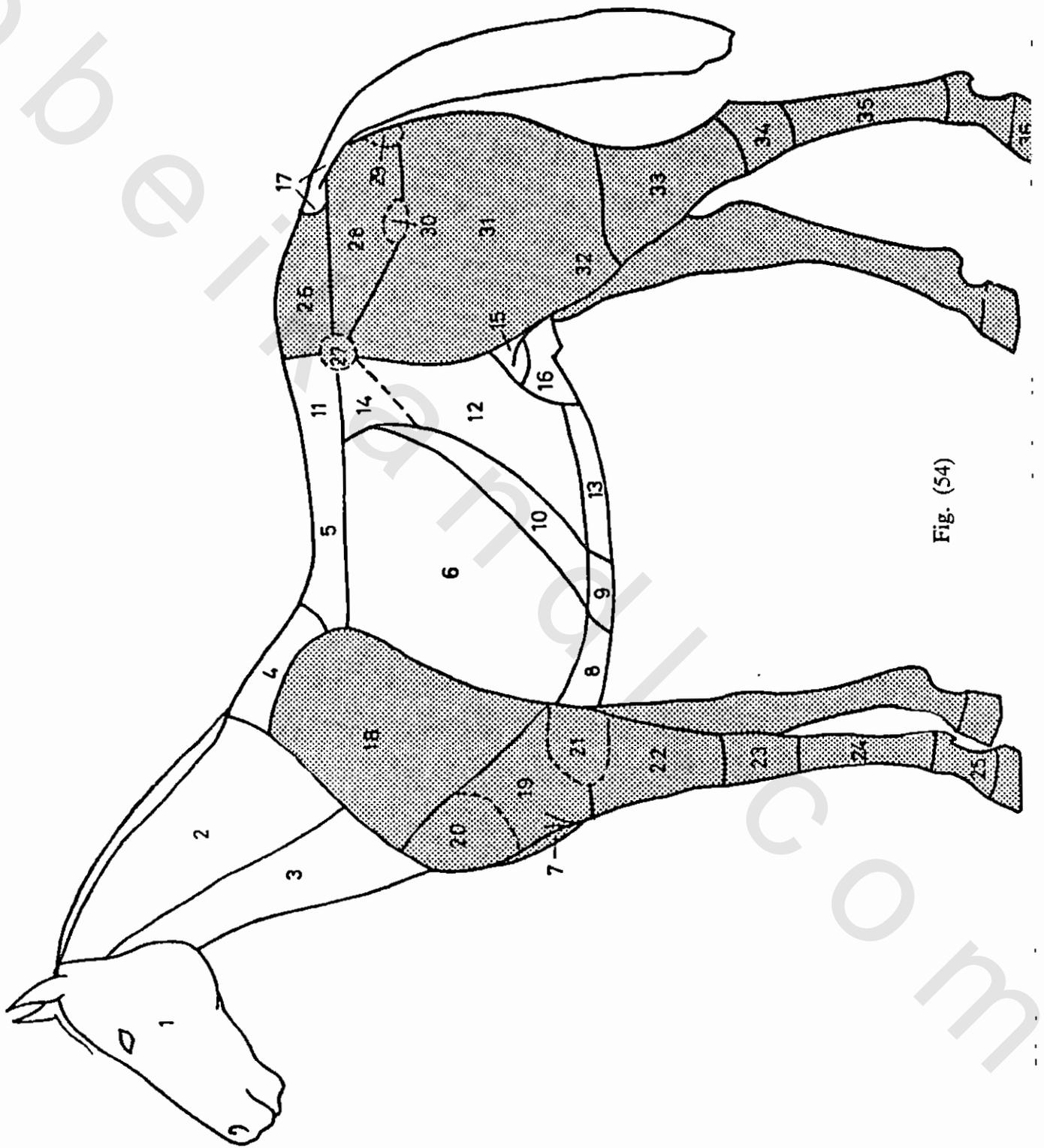


Fig. (54)

Fig. (54) Regions of the body

- 1 head,
- 2 dorsal region,
- 4, 5, 6, 7, 8 thorax,
- 5 dorsum,
- 7 presternal region,
- 9, 10, 11, 12, 13, 14, 15, 16 abdomen,
- 9 xiphoid region,
- 11 lumbar region,
- 12 ,14 iliac region,
- 14 fossa paralumbalis,
- 15 inguinal region,
- 17 cauda (tail),
- 18 scapular region,
- 20 shoulder subregion,
- 22 antebrachium,
- 24 metacarpus,
- 26 ,27,28,29 pelvic,
- 26 sacral region,
- 28 gluteal region,
- 30 hip region,
- 32 stifle (genu),
- 34 tarsus,
- 36 digits.
- 2 , 3 neck,
- 3 ventral region,
- 4 interscapular region,
- 6 costal region,
- 8 sternal region,
- 9 , 10 epigastrium,
- 10 hypochondric region,
- 12 , 13, 14 mesogastrium,
- 13 umbilical region,
- 15 ,16 hypogastrum,
- 16 pubic region,
- 18 ,19,20,21,23,24,25 thoracic limb,
- 19 brachial region,
- 21 cubital region,
- 23 carpus,
- 25 digits,
- 30 ,31,32,33,34,35,36 pelvic limb,
- 27 tuber coxae,
- 29 ischial tuber,
- 31 femoral region,
- 33 leg (crus),
- 35 metatarsus,

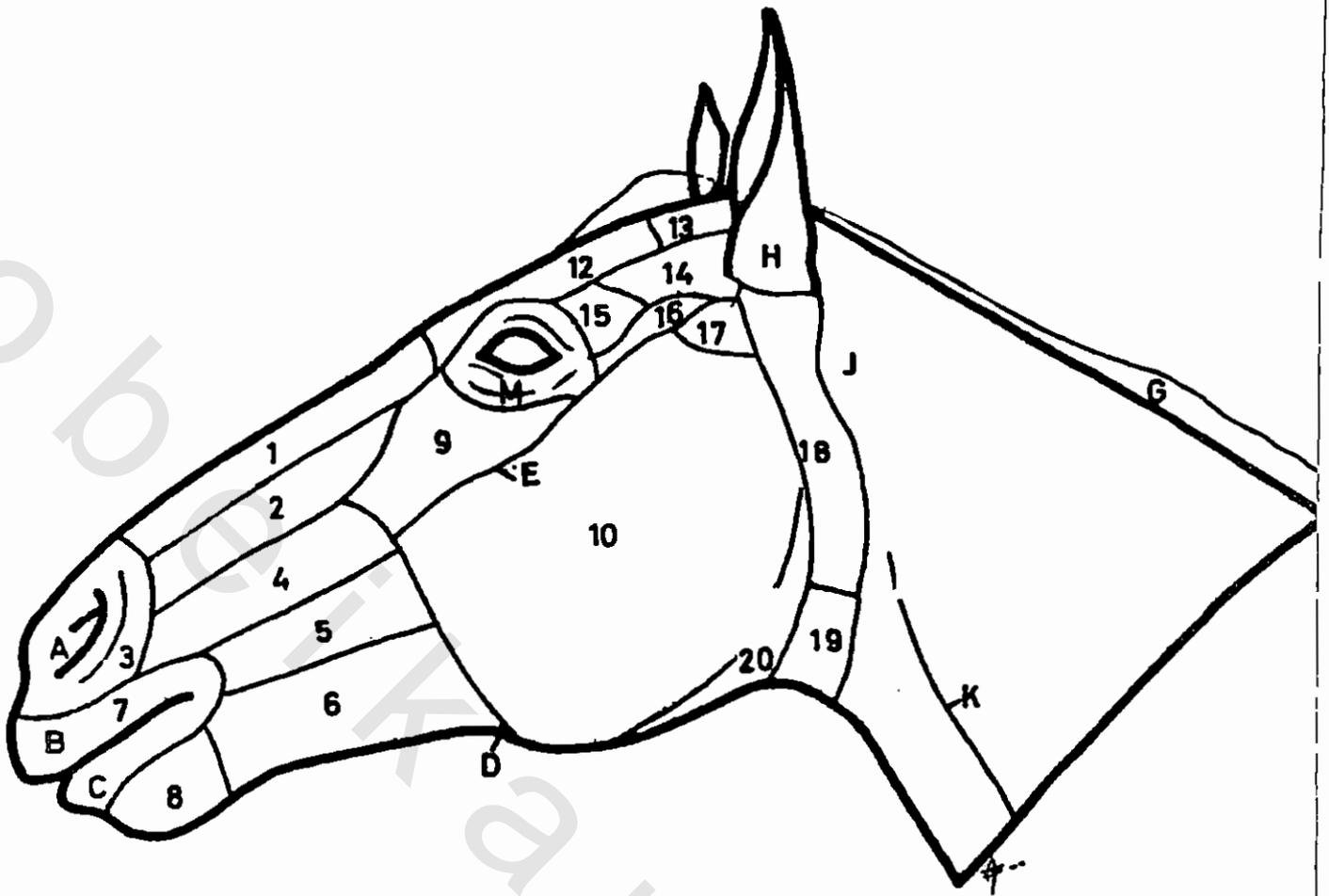


Fig. (55) Regions of the head

- |                         |                                       |
|-------------------------|---------------------------------------|
| 1 dorsal nasal region,  | 2 lateral nasal region,               |
| 3 naris region,         | 4, 6, buccal region,                  |
| 4 maxillary subregion,  | 5 malar subregion,                    |
| 6 mandibular subregion, | 7 oral region,                        |
| 8 mental region,        | 9 infraorbital region,                |
| 10 masseteric region,   | 11 ophthalmic or orbital region,      |
| 12 frontal region,      | 13 parietal region,                   |
| 14 temporal region,     | 15 supraorbital region,               |
| 16 zygomatic subregion, | 17 mandibular articulation subregion, |
| 18 parotidial region,   | 19 laryngeal region,                  |
| 20 mandibular margin.   |                                       |

- |                   |              |              |                     |
|-------------------|--------------|--------------|---------------------|
| A naris,          | B upper lip, | C lower lip, | D incisura vasorum, |
| E facial crest,   | G main,      | H ear,       | J wing of atlas,    |
| K jugular groove. |              |              |                     |

# LATERAL VIEW

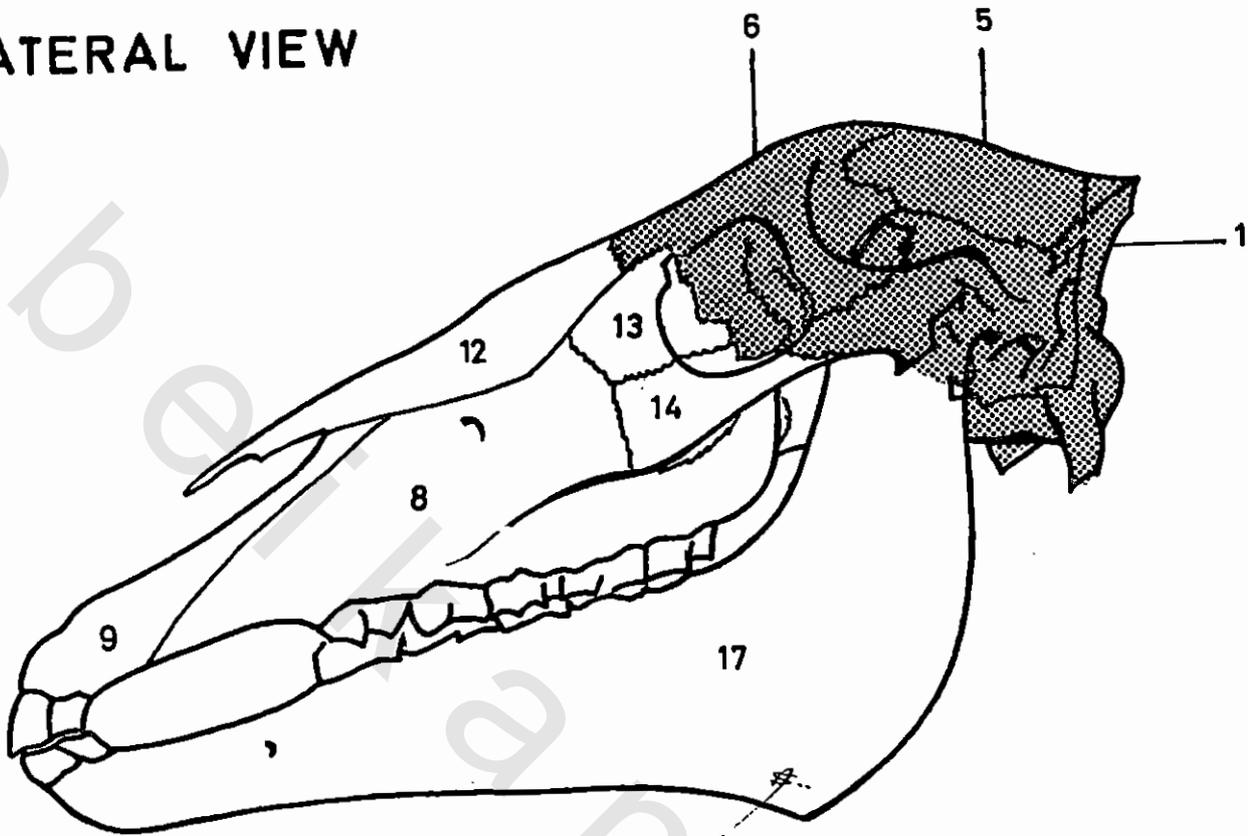


Fig. (56-60) Skull  
Bones of the cranial cavity

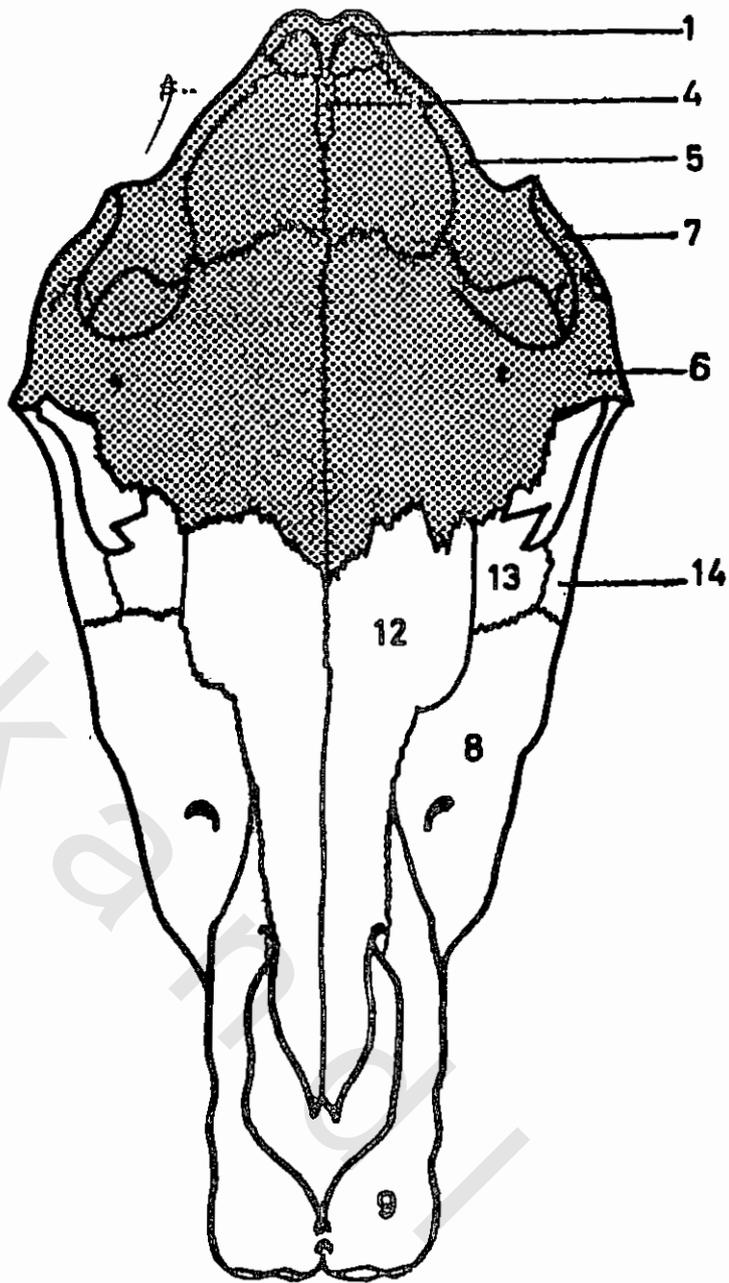
1	occipital,	1'	its basilar part,	2	sphenoid,
2'	its body,	2''	its temporal wing,	2'''	its orbital wing,
3	ethmoidal,	4	interparietal,	5	parietal,
6	frontal,	6'	its orbital part,	7	temporal.

## Bones of the face

8	maxilla,	8'	palatine process of (8),		
9	incisive,	9'	palatine process of (9),		
10	palatine,	10'	its horizontal part,		
11	pterygoid,	12	nasal,	13	lacrimal,
14	zygomatic,	15	turbinate (dorsal and ventral),		
16	vomer	17	mandible.		

i1 first incisor tooth,  
i3 third incisor tooth.

i2 second incisor tooth,



**CRANIAL VIEW**

Fig. (57)

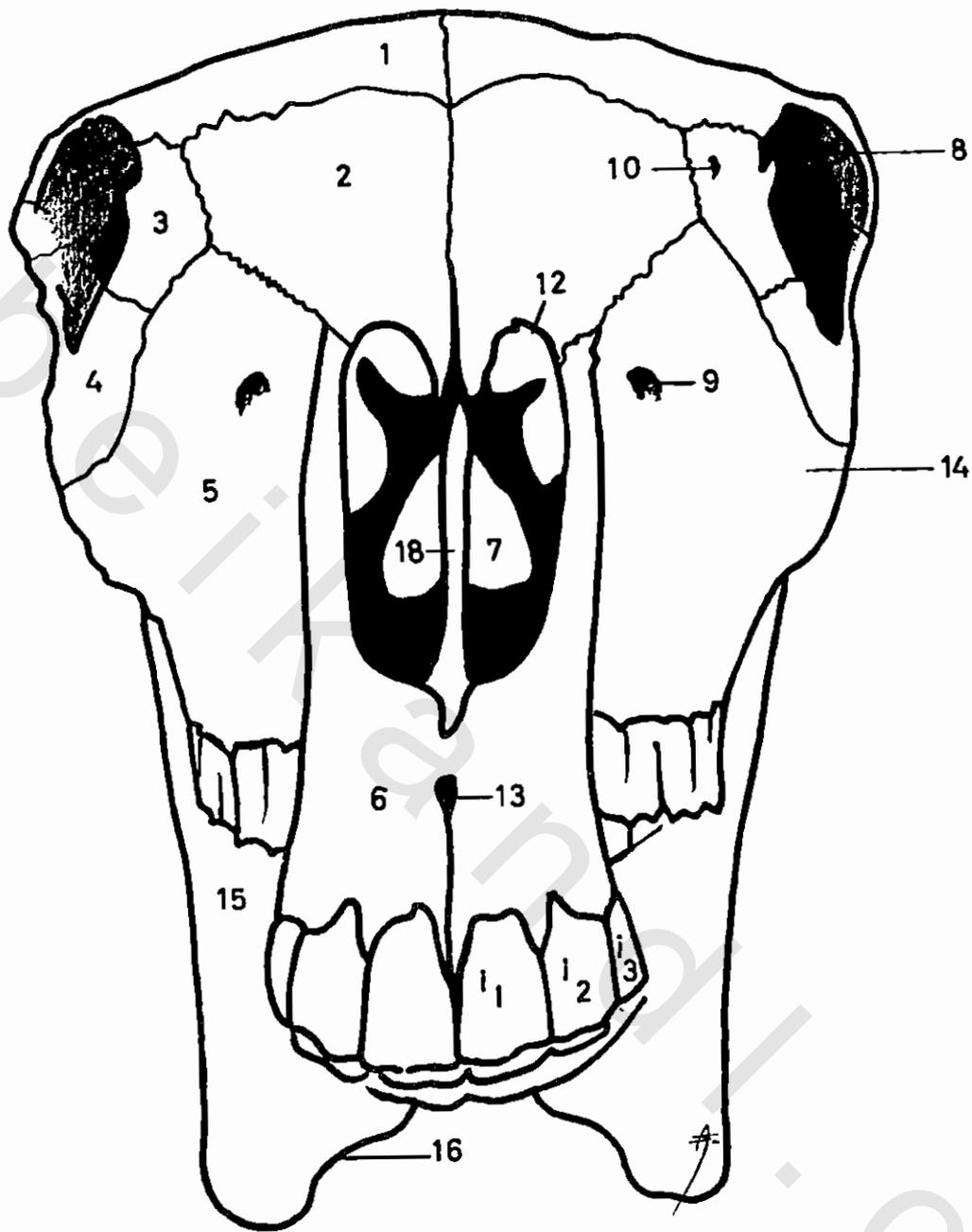


Fig. (58)



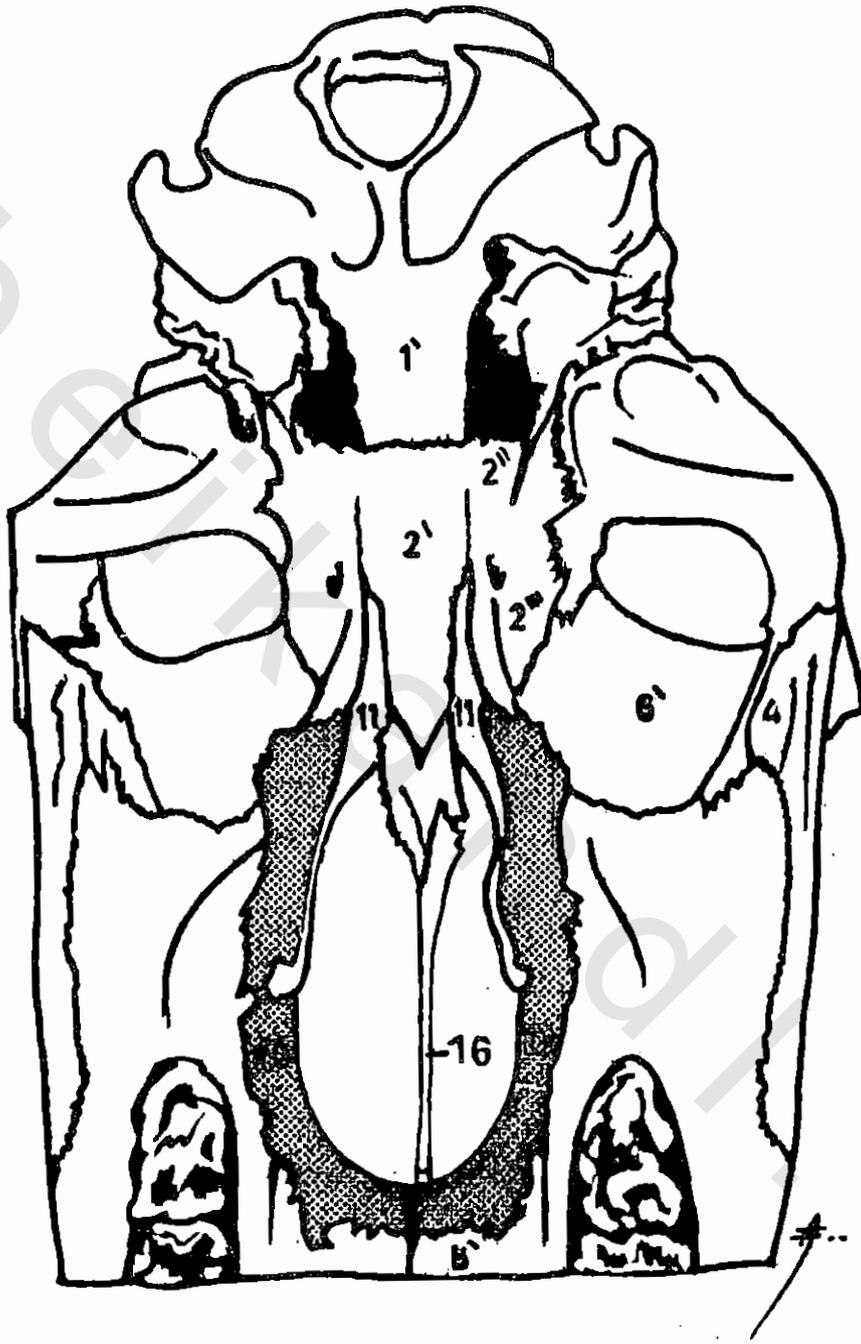


Fig. (60)

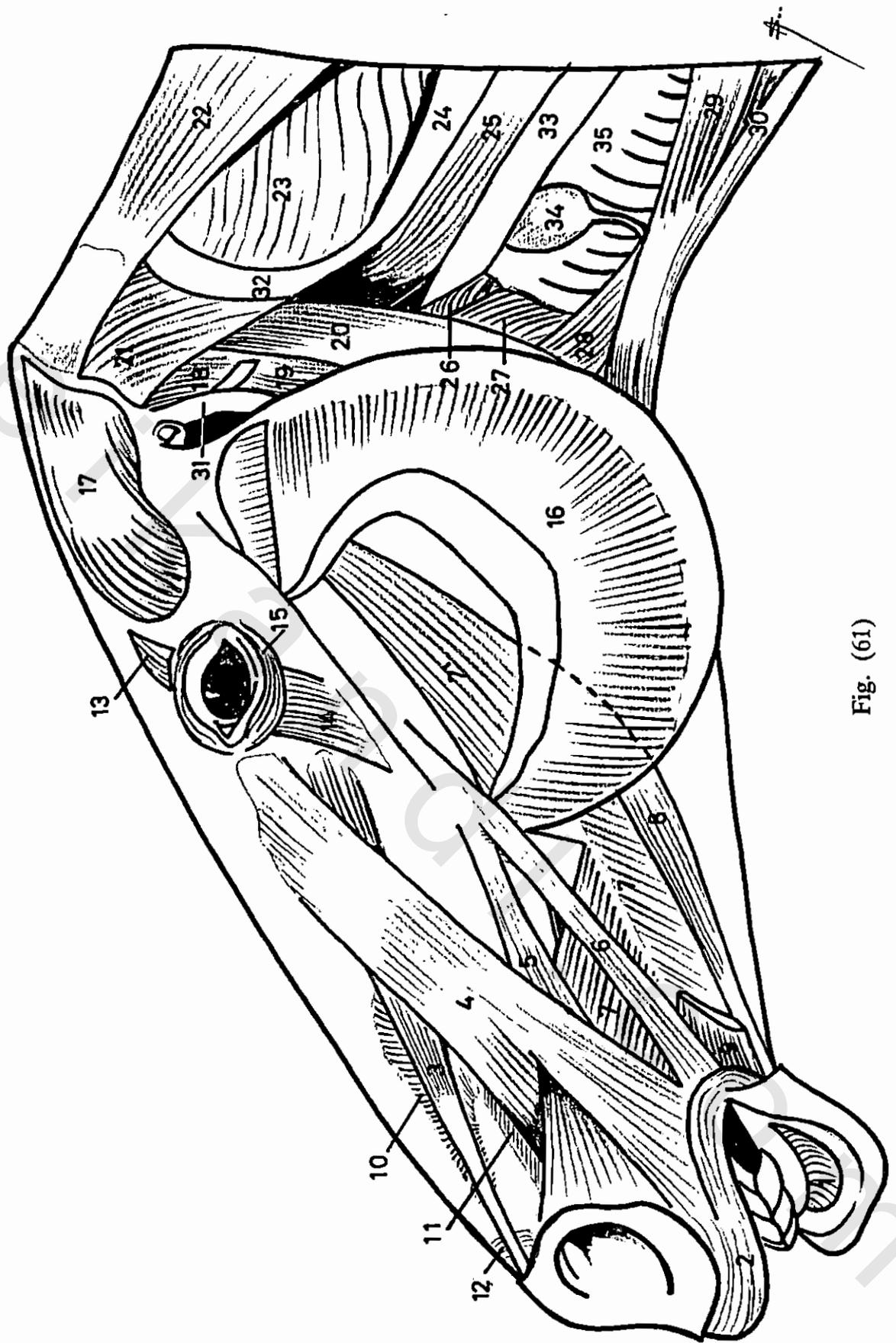


Fig. (61)

Fig. (61) Muscles of the face

- 1 M. incisivus mandibularis,
- 2 M. orbicularis oris,
- 3 M. levator labii maxillaris,
- 4 M. levator nasolabialis,
- 5 M. caninus,
- 6 M. zygomaticus,
- 7 M. buccinatorius (buccal part),
- 7' M. buccinatorius (molar part),
- 8 M. depressor labii inferioris,
- 9 M. resorius,
- 10 M. lateralis nasi (dorsal part),
- 11 M. lateralis nasi (ventral part),
- 12 M. transversus nasi,
- 13 M. corrugator supercilii,
- 14 M. malaris,
- 15 M. orbicularis oculi,
- 16 M. masseter,
- 17 M. temporalis,
- 18 M. jugulothyoideus,
- 19 M. stylothyoideus,
- 20 M. jugulomandibularis,
- 21 M. obliquus capitis cranialis,
- 22 M. semispinalis capitis,
- 23 M. obliquus capitis cranialis,
- 24 M. longissimus atlantis (tendon),
- 25 M. longus capitis,
- 26 M. cricoarytenoideus dorsalis,
- 27 M. cricopharyngicus,
- 28 M. sternothyroideus,
- 29 M. omohyoideus,
- 30 M. sternohyoideus,
- 31 Stylohyoid,
- 32 Wing of the atlas,
- 33 Oesophagus,
- 34 Glandula thyroidea,
- 35 Trachea.

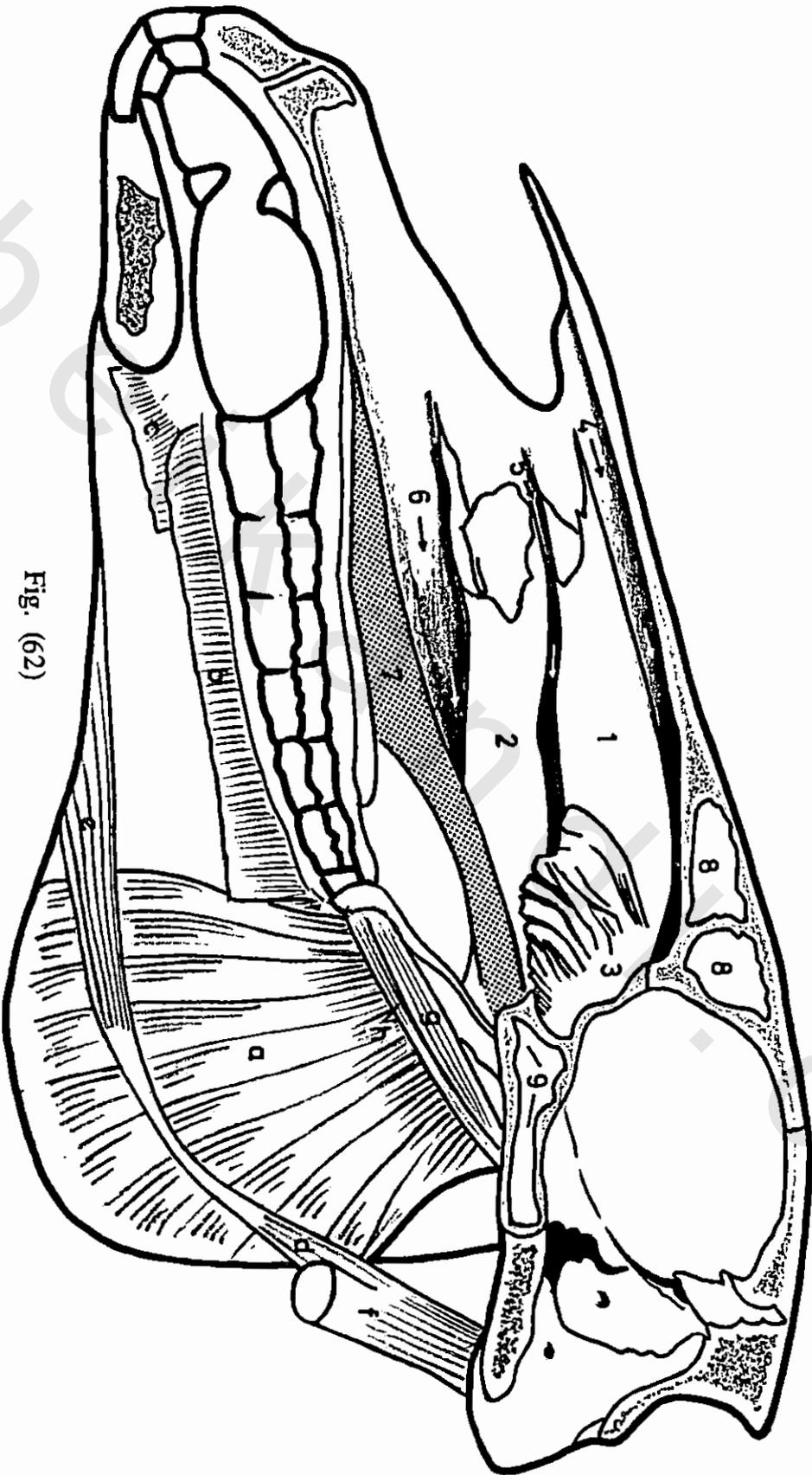


Fig. (62)

Fig. (62) Sagittal section of the head

- |   |                                 |   |                                |   |                       |
|---|---------------------------------|---|--------------------------------|---|-----------------------|
| 1 | dorsal nasal concha,            | 2 | ventral nasal concha,          | 3 | ethmoturbinate,       |
| 4 | dorsal nasal meatus,            | 5 | middle nasal meatus            | 6 | ventral nasal meatus, |
| 7 | vomer bone,                     | 8 | frontal sinus                  | 9 | sphenopalatine sinus. |
| a | M. pterygoideus internus,       | b | M. mylohyoideus,               |   |                       |
| c | M. myloglossus,                 | d | M. digastricus (caudal belly), |   |                       |
| e | M. digastricus (rostral belly), | f | M. jugulomandibularis,         |   |                       |
| g | M. tensor veli palatini,        | h | M. levator veli palatini.      |   |                       |

N.B. d,e,f + masseter + temporalis are the muscles of mastication (mandibular muscles).

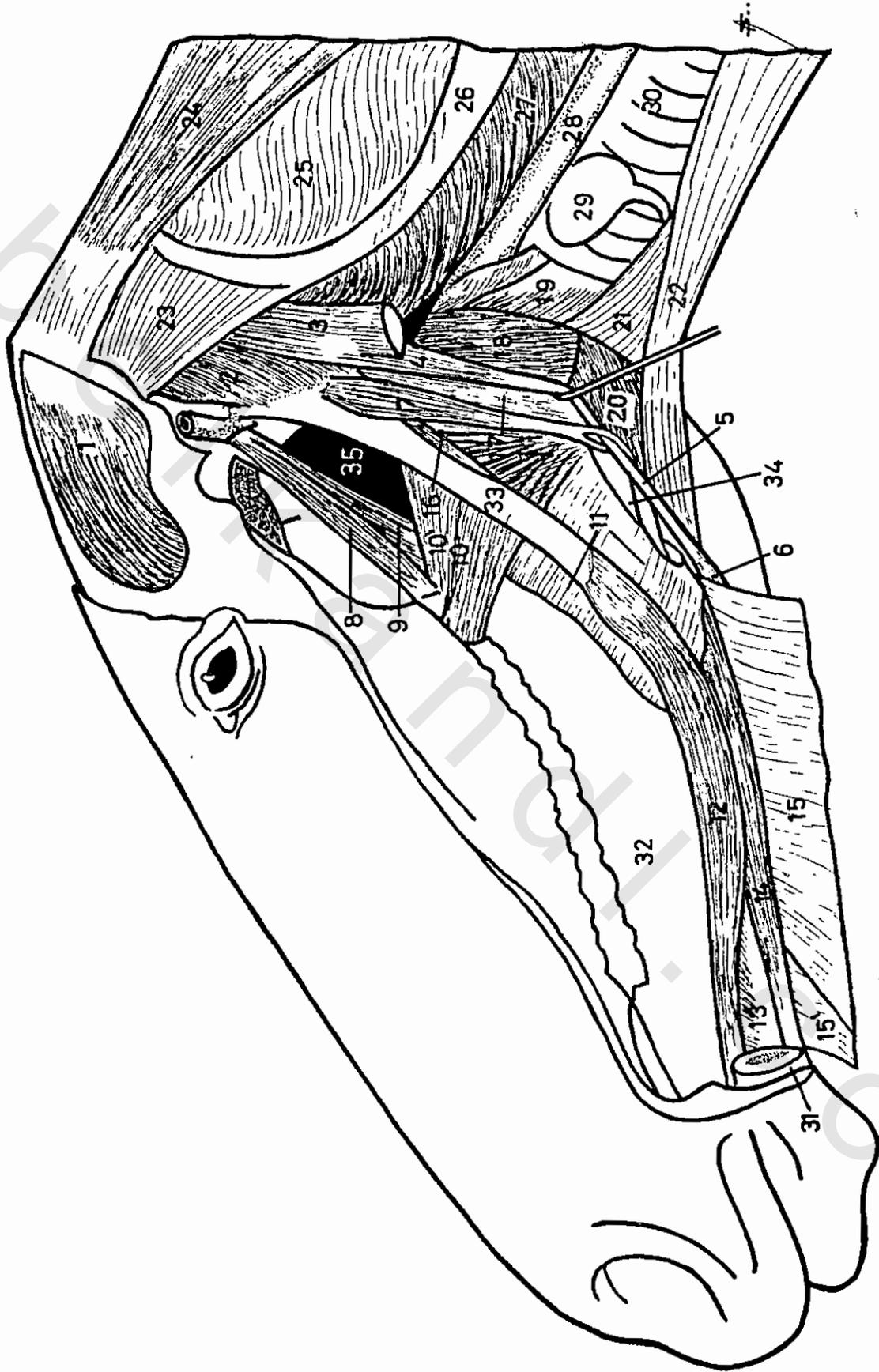


Fig. (63)

Fig. (63) Head (Mandible removed)

- 1 *M. temporalis*,
- 2 *M. jugulothyoideus*,
- 3 *M. juglomandibularis*,
- 4 *M. digastricus* (caudal belly),
- 5 Intermediate tendon of *M. digastricus*,
- 6 *M. digastricus* (rostral belly),
- 7 *M. stylothyoideus*,
- 8 *M. tensor veli palatini*,
- 9 *M. levator veli palatini*,
- 10 *M. palatopharyngicus*,
- 10 *M. pterygopharyngicus*,
- 11 *M. hyoglossus*,
- 12 *M. styloglossus*,
- 13 *M. genioglossus*,
- 14 *M. geniothyoideus*,
- 15 *M. mylothyoideus*,
- 15 *M. myloglossus*,
- 16 *M. stylopharyngicus* (aboralis),
- 17 *M. stylopharyngicus* (oralis) & *M. hyopharyngicus*,
- 18 *M. thyropharyngicus*,
- 19 *M. cricopharyngicus*,
- 20 *M. hyothyroideus*,
- 21 *M. sternothyroideus*,
- 22 *M. sternothyoideus*,
- 23 *M. obliquus capitis cranialis*,
- 24 *M. semispinalis capitis*,
- 25 *M. obliquus capitis cranialis*,
- 26 Tendon of *M. longissimus atlantis*.
- 27 *M. longus capitis*,
- 28 Oesophagus,
- 29 Glandula thyroidea,
- 30 Trachea,
- 31 Tongue,
- 32 Mandibula,
- 33 Stylohyoid,
- 34 Thyrohyoid,
- 35 Diverticulum of the auditory tube.

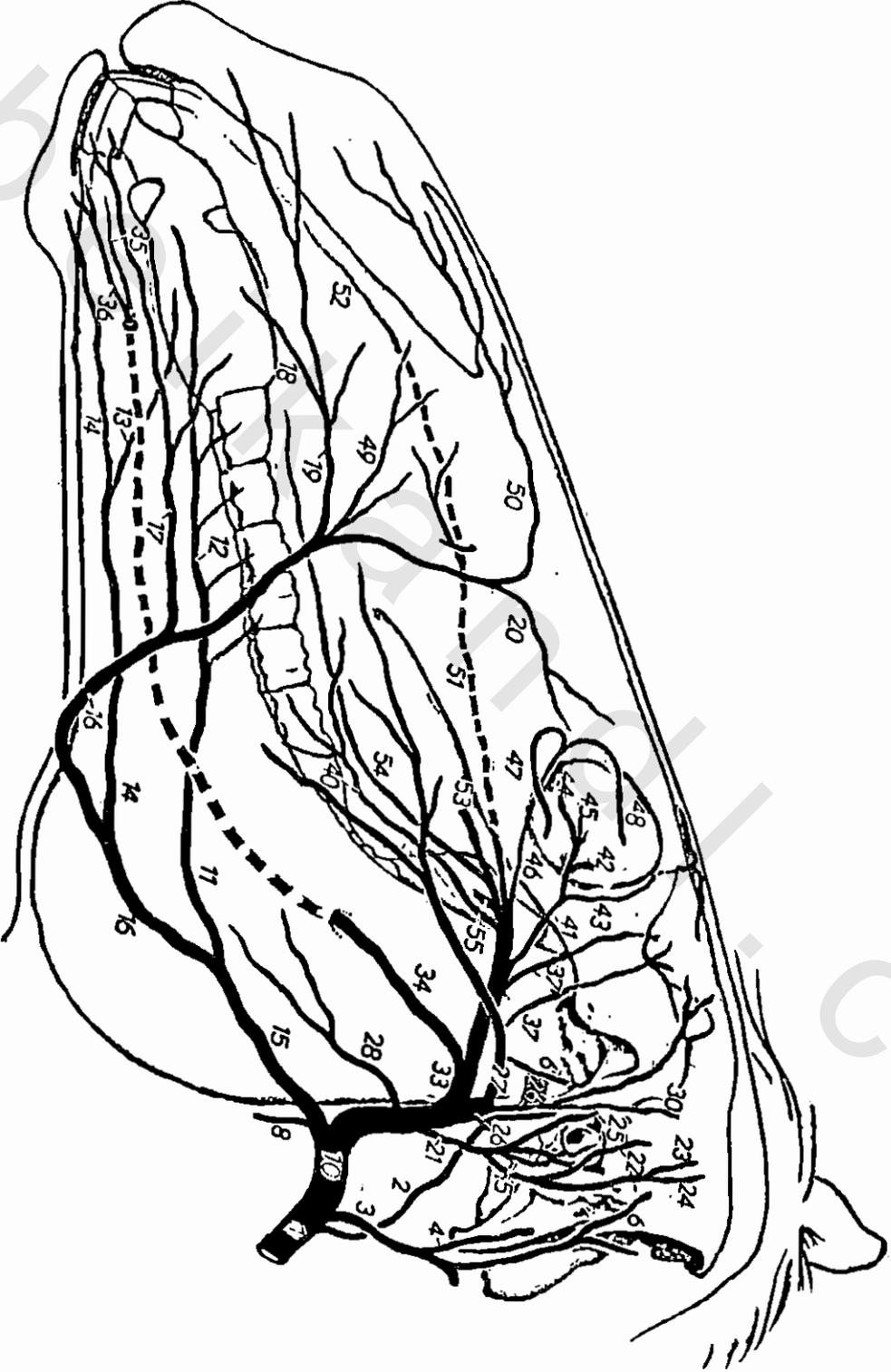


Fig. (64)

Fig. (64) Head (Arteries)

- |    |  |    |                                     |
|----|--|----|-------------------------------------|
| 1  | A. carotis communis,                       | 2  | A. carotis interna,                 |
| 3  | A. occipitalis,                            | 3  | R. occipitalis,                     |
| 4  | A. condylaris,                             | 5  | A. stylomastoidea,                  |
| 6  | A. meningea,                               | 6  | A. meningea media,                  |
| 7  | A. pharyngea ascendens (x),                | 8  | A. palatina ascendens,              |
| 9  | A. laryngae cran. (x),                     | 10 | A. carotis externa,                 |
| 11 | A. lingualis,                              | 12 | A. profunda linguae,                |
| 13 | A. sublingualis,                           | 14 | A. submentalis,                     |
| 15 | Truncus linguofacialis,                    | 16 | A. facialis,                        |
| 17 | A. labialis mandibularis,                  | 18 | A. angularis oris,                  |
| 19 | A. labialis maxillaris,                    | 20 | A. angularis oculi,                 |
| 21 | A. auricularis caudalis,                   | 22 | A. R. auricularis lateralis,        |
| 23 | R. auricularis intermedius,                | 24 | R. auricularis medialis,            |
| 25 | A. auricularis caudalis,                   | 26 | A. temporalis superficialis,        |
| 27 | A. transversa faciei,                      | 28 | R. massetericus,                    |
| 30 | A. auricularis rostralis,                  | 33 | A. maxillaris,                      |
| 34 | A. alveolaris mandibularis,                | 35 | R. dentalis of 34,                  |
| 36 | Rr. mentales,                              | 37 | A. temporalis profunda caud.,       |
| 37 | A. temporalis prof. rostralis,             | 40 | A. buccalis,                        |
| 41 | A. ophthalmica,                            | 42 | A. ethmoidea externa,               |
| 43 | A. supraorbitalis,                         | 44 | A. lacrimalis,                      |
| 45 | Distribution of 41 on the bulb of the eye, | 46 | A. malaris,                         |
| 47 | A. palpebralis inferioris med.,            | 48 | A. palpebralis superioris medialis, |
| 49 | A. lateralis nasi,                         | 50 | A. dorsalis nasi,                   |
| 51 | A. infraorbitalis,                         | 52 | R. dentalis of 51,                  |
| 53 | A. sphenopalatina,                         | 54 | palatina major,                     |
| 55 | A. palatina minor.                         |    |                                     |

(x) Arteries are not shown in the drawing.

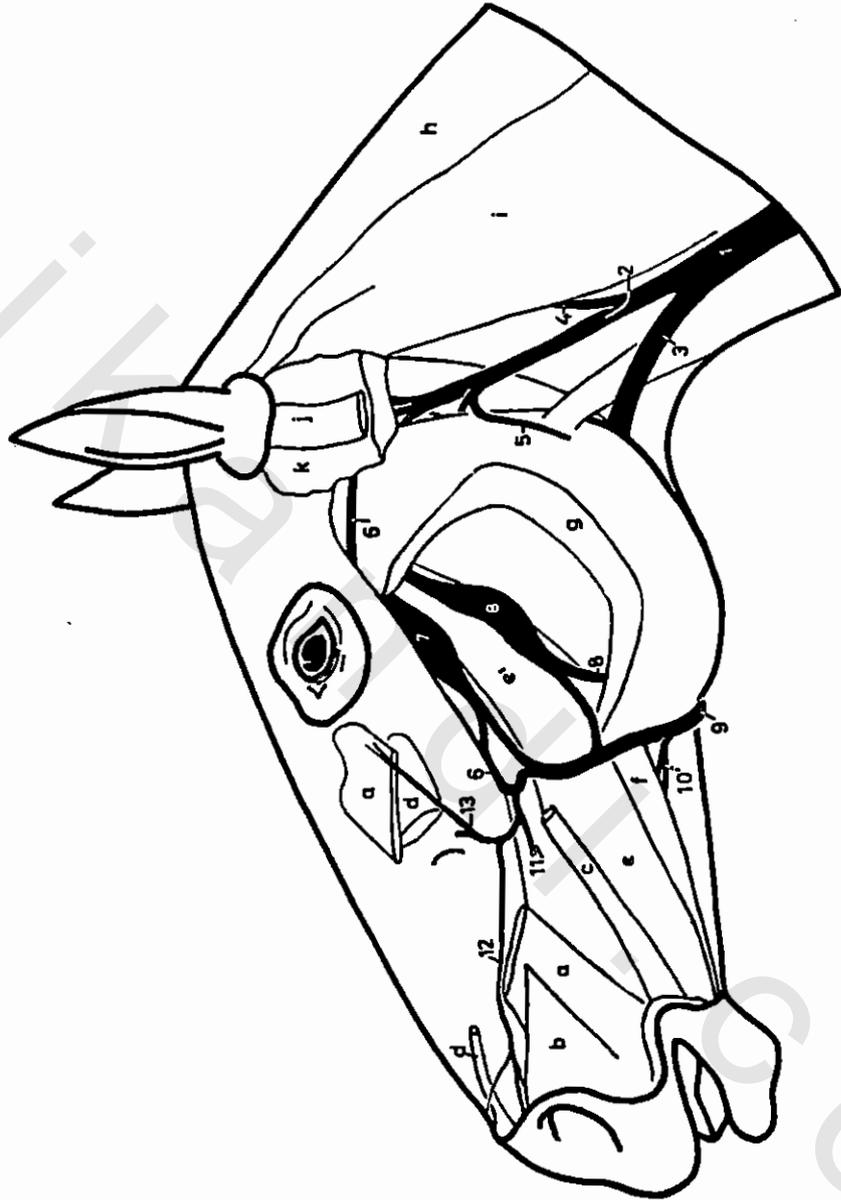


Fig. (65)

Fig. (65) Head (Veins)

- |    |                                |    |                            |    |                                |
|----|--------------------------------|----|----------------------------|----|--------------------------------|
| a  | M. levator nasolabialis,       | b  | M. caninus,                | c  | M. zygomaticus,                |
| d  | M. levator labii maxillaris,   | e  | M. buccinatorius (buccal), | é  | M. buccinatorius (molar part), |
| f  | M. depressor labii mandibular. | g  | M. masseter,               | h  | M. splenius,                   |
| i  | M. brachiocephalicus,          | j  | M. auricularis ventralis,  | k  | parotid gland.                 |
| 1  | V. jugularis,                  | 2  | V. maxillaris interna,     | 3  | V. maxillaris externa,         |
| 4  | V. occipitalis, rostralis,     | 5  | V. masseterica,            | 6  | V. transversa faciei,          |
| 7  | V. reflexae,                   | 8  | V. buccinatorius,          | 9  | V. facialis,                   |
| 10 | V. labialis communis,          | 11 | V. lateralis nasalis,      | 12 | V. dorsalis nasalis,           |
| 13 | V. angularis oculi.            |    |                            |    |                                |

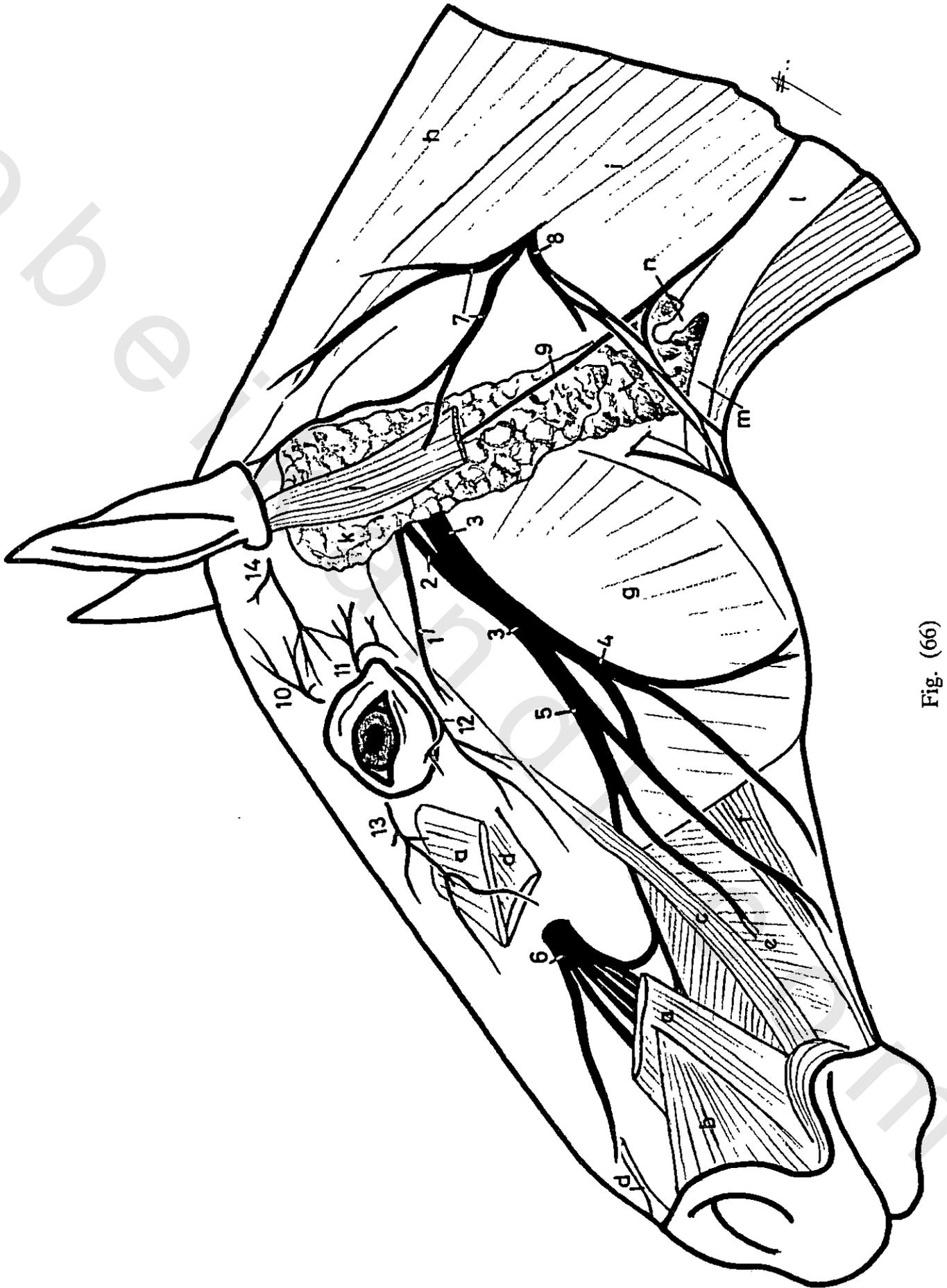


Fig. (66)

Fig. (66) Head (Nerves)

- a M. levator nasolabialis,
- c M. zygomaticus,
- e M. buccinatorius,
- g M. masseter,
- i M. brachiocephalicus,
- k Parotid gland,
- m V. maxillaris externa,
- 1 N. transversa facialis,
- 3 N. facialis,
- 5 N. buccalis dorsalis,
- 7 N. auricularis magna of N. CII,
- 9 R. colli of N. facialis,
- 11 N. lacrimalis,
- 13 N. infratrochlearis,
- b M. caninus,
- d M. levator labii maxillaris,
- f M. depressor labii inferioris,
- h M. splenius,
- j M. auricularis inferioris,
- 1 V. jugularis,
- n V. maxillaris interna.
- 2 R. communicans (vent.) of 1,
- 4 N. buccalis ventralis,
- 6 N. infraorbitalis,
- 8 N. cutaneus colli of N. CII,
- 10 N. frontalis,
- 12 N. zygomaticus,
- 14 N. auriculopalpebralis.

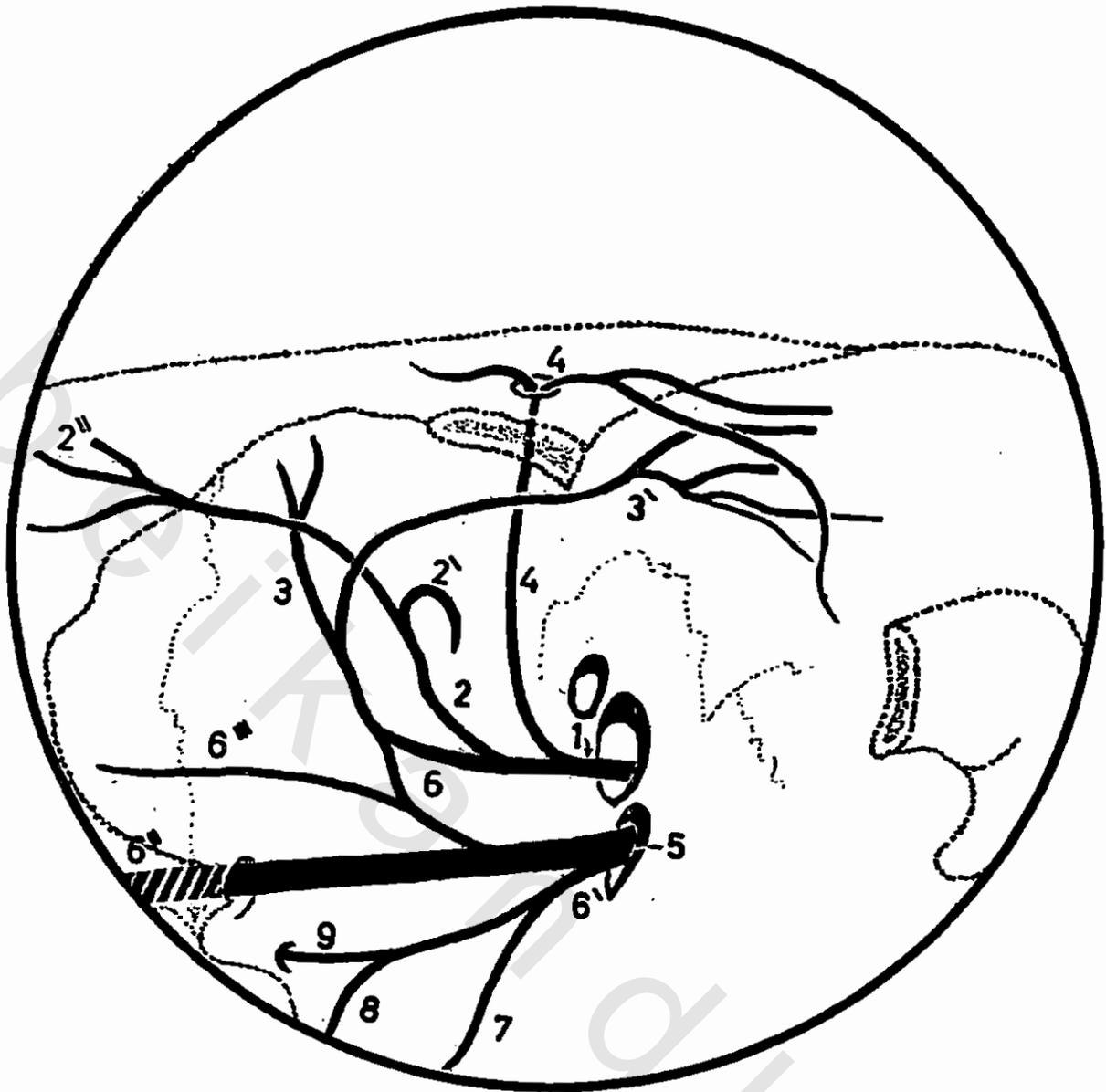


Fig. (67), (68) Cranial nerves (N. trigeminus)

- |               |   |      |                          |
|---------------|---|------|--------------------------|
| 1             | N. ophthalmicus, (x)                          | 2    | N. nasociliaris,         |
| 2'            | N. ethmoidalis,                               | 2''  | N. infratrochlearis,     |
| 3             | N. lacrimalis,                                | 3'   | R. zygomaticotemporalis, |
| 4             | N. frontalis,                                 | 5    | N. maxillaris, (x)       |
| 6             | R. commun. with N. lacrimalis,                | 6'   | N. pterygopalatinus,     |
| 6''           | N. infraorbitalis,                            | 6''' | R. zygomaticofacialis,   |
| 7             | palatinus minor,                              | 8    | N. palatinus major,      |
| 9             | N. nasalis caudalis,                          |      |                          |
| 10, 10', 10'' | Rr. alveolares maxillares caud., med., rost., |      |                          |
| 10'''         | R. alveolaris incisivus max.                  | 11   | Rr. nasales extr.,       |
| 11            | Rr. nasales intr.,                            | 11'' | labiales maxillares,     |
| 12            | N. mandibularis, (x)                          | 12   | N. masticatorius,        |
| 12''          | N. temporalis profundus,                      | 13   | N. pterygoideus,         |
| 14            | N. auriculotemporalis,                        | 15   | N. buccalis,             |
| 16            | N. lingualis,                                 | 16   | N. mylohyoideus,         |

(contin.)

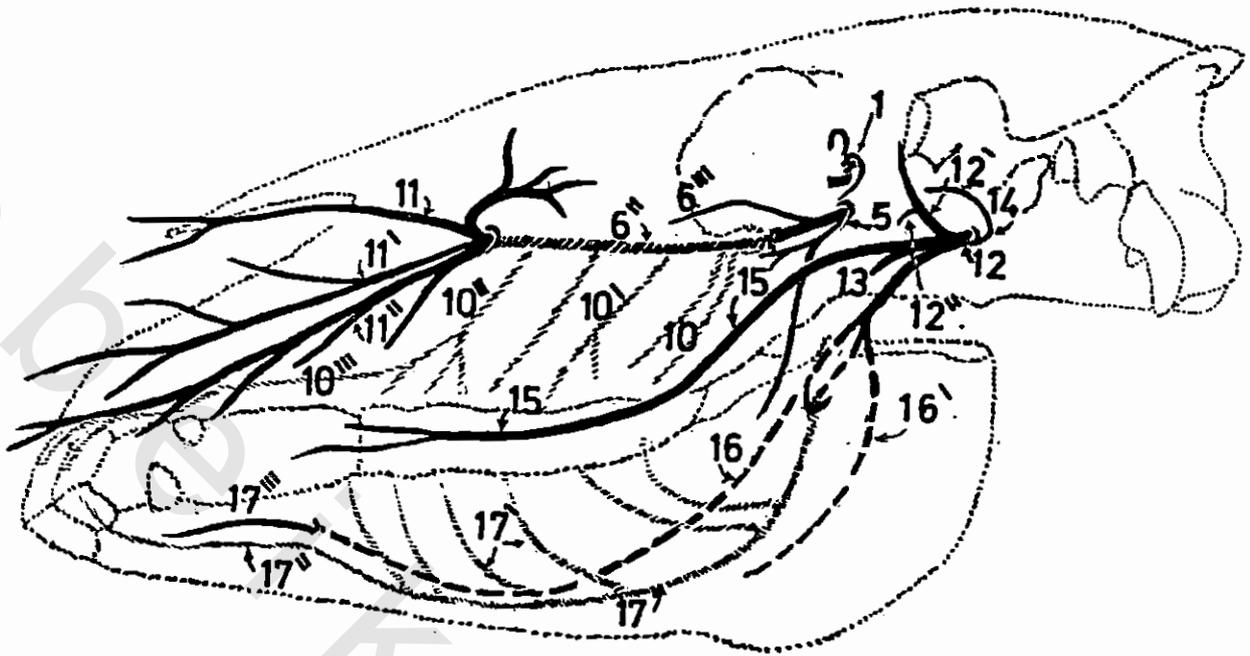


Fig. (68) N. trigeminus (Cont.)

- 17 N. alveolaris mandibularis,
- 17' Rr. alveolares mandibularis,
- 17" R. alveolaris incisivus mandibularis,
- 17''' N. mentalis.

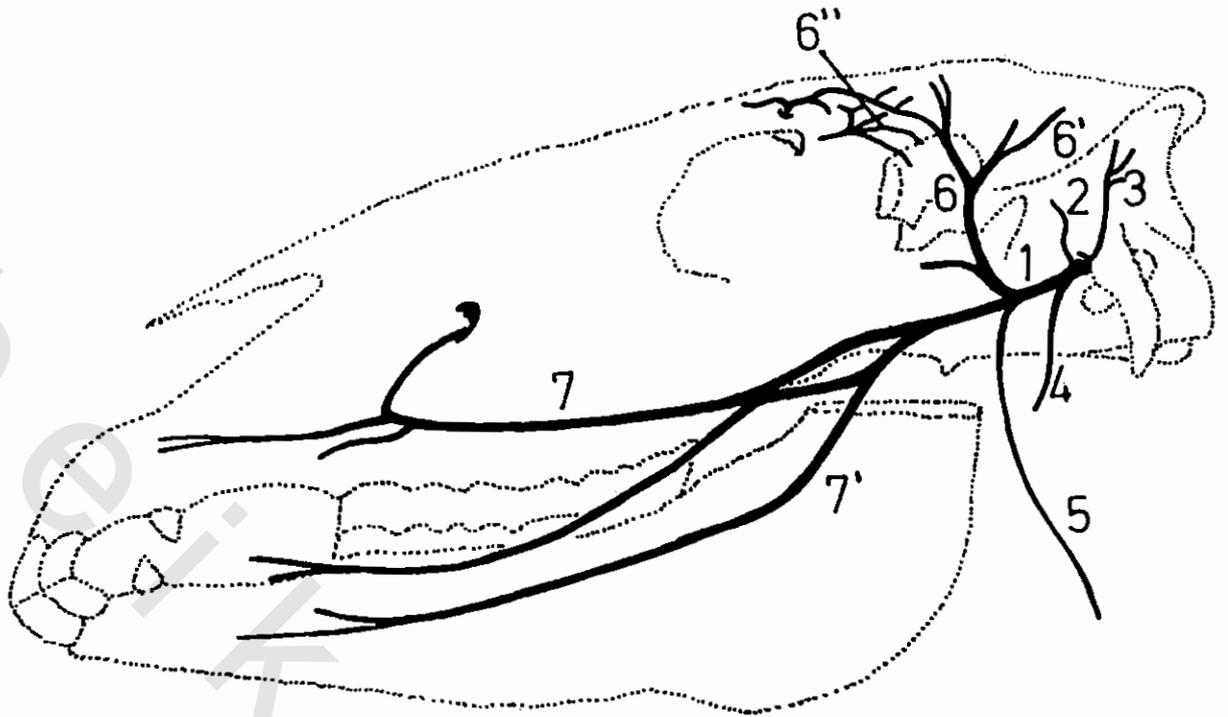


Fig. (69) Cranial nerves (N. facialis VII)

- |     |                               |
|-----|-------------------------------|
| 1   | N. facialis,                  |
| 2   | R. auricularis internus,      |
| 3   | N. auricularis caudalis,      |
| 4   | R. digastricus,               |
| 5   | R. colli,                     |
| 6   | N. auriculopalpebralis,       |
| 6'  | R. auricularis rostralis,     |
| 6'' | Plexus auricularis rostralis, |
| 7   | R. buccalis dorsalis,         |
| 7'  | R. buccalis ventralis.        |

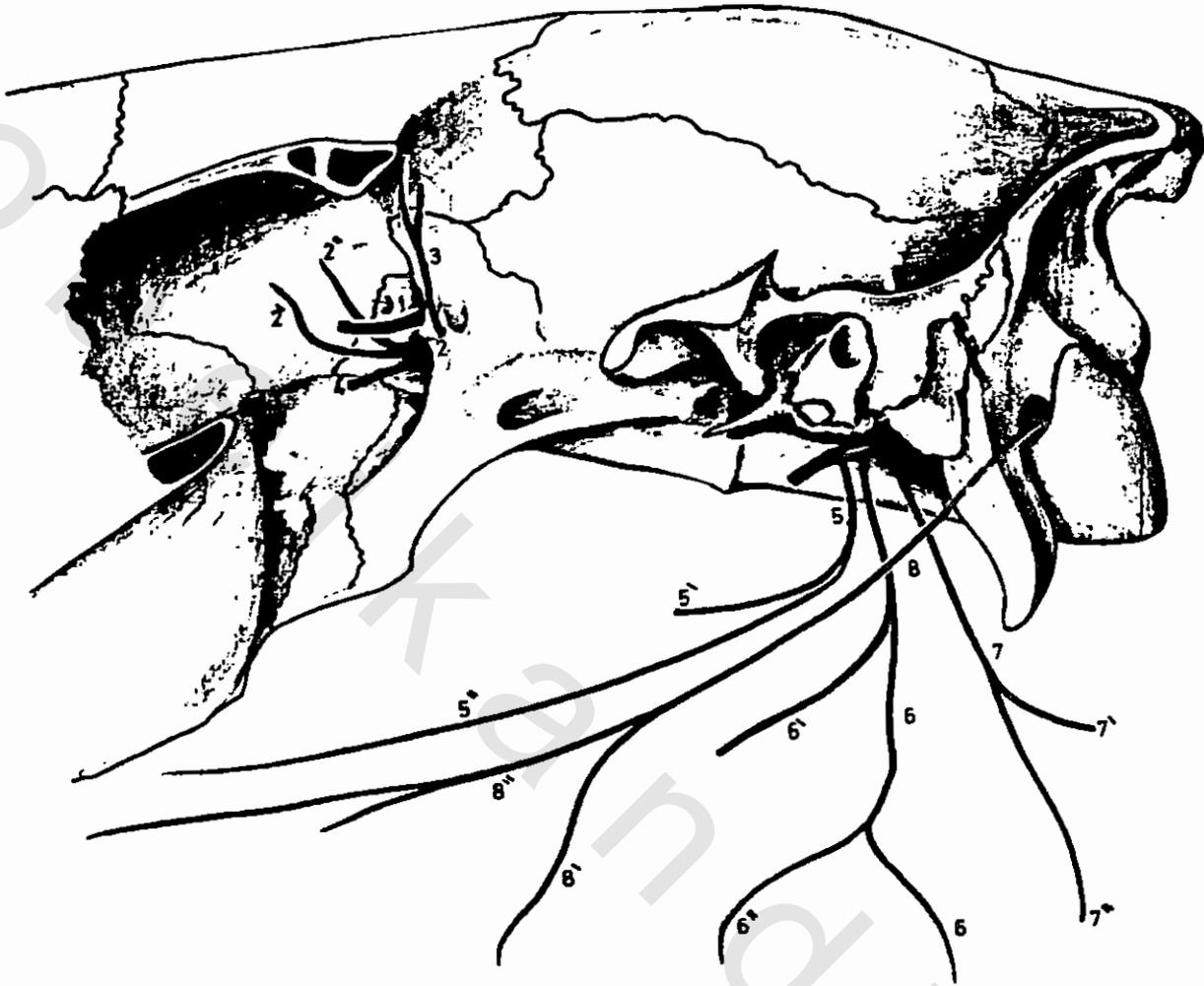


Fig. (70) Cranial nerves

- |     |                             |     |                           |
|-----|-----------------------------|-----|---------------------------|
| 1   | N. opticus II (x)           | 2   | N. oculomotorius III (x), |
| 2'  | R. ventralis,               | 2'' | R. dorsalis,              |
| 3   | N. trochlearis IV (x),      | 4   | N. abducens VI (x),       |
| 5   | N. glossopharyngeus IX (x), | 5'  | R. pharyngeus,            |
| 5'' | R. lingualis,               | 6   | N. vagus X (x),           |
| 6'  | R. pharyngeus,              | 6'' | N. laryngeus rostralis,   |
| 7   | N. accessorius XI (x),      | 7'  | R. dorsalis,              |
| 7'' | R. ventralis,               | 8   | N. hypoglossus XII (x).   |
| 8'  | R. superficialis,           | 8'  | R. profundus.             |

N.B. (x) indicates cranial nerves.

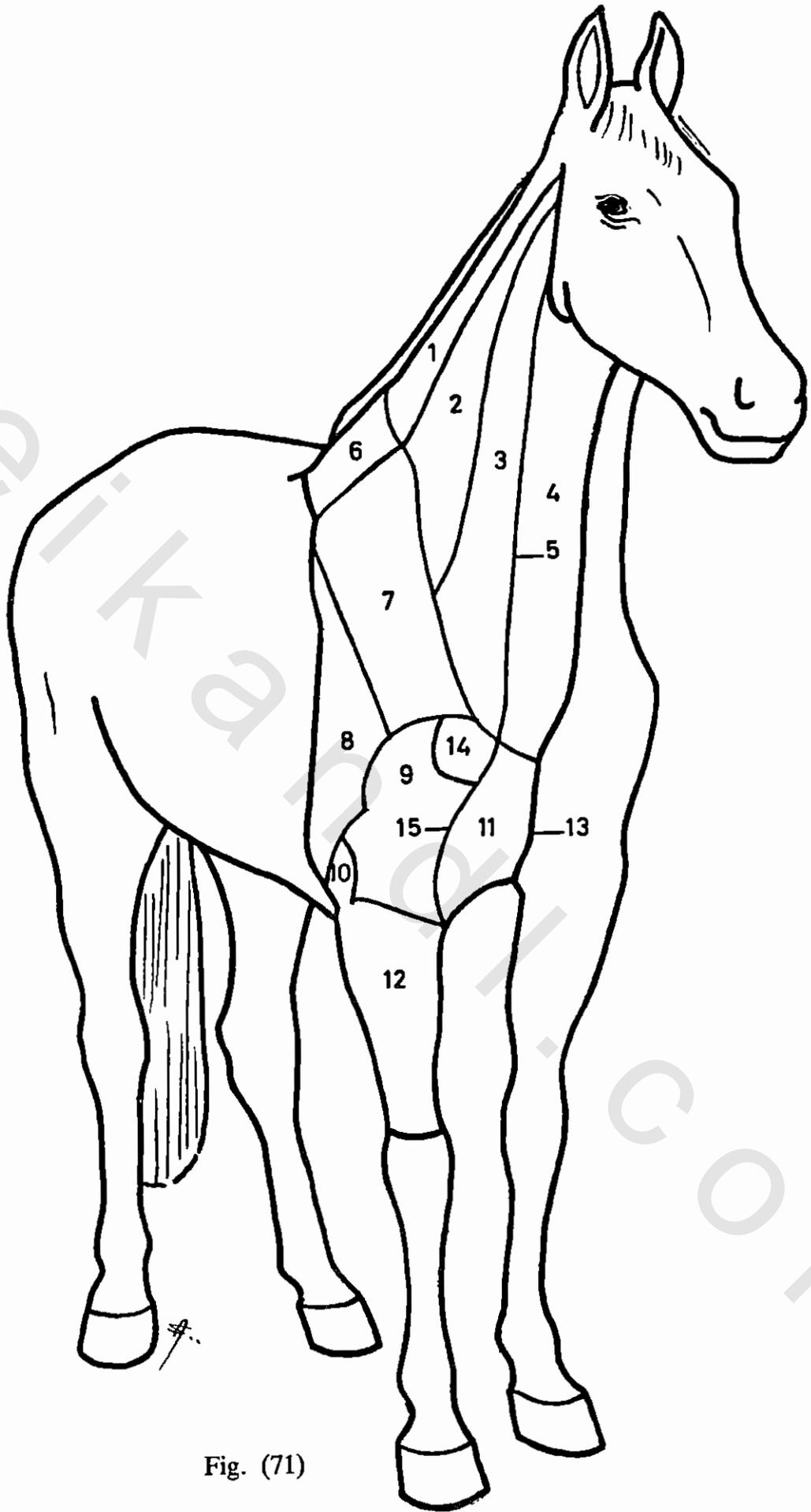


Fig. (71)

Fig. (71) Regions of the neck

- 1,2 dorsal cervical region,
- 1 dorsal nuchal region,
- 2 ventral nuchal region,
- 3,4 ventral cervical region,
- 3 brachiocephalic muscle subregion,
- 4 sternocleidomastoid muscle subregion,
- 5 jugular groove,
- 6 interscapular region,
- 7 scapular region,
- 8 triceps brachii region,
- 9 brachial region,
- 10 olecranon region,
- 11 presternal region,
- 12 antebrachium,
- 13 median pectoral groove,
- 14 shoulder region,
- 15 lateral pectoral groove.

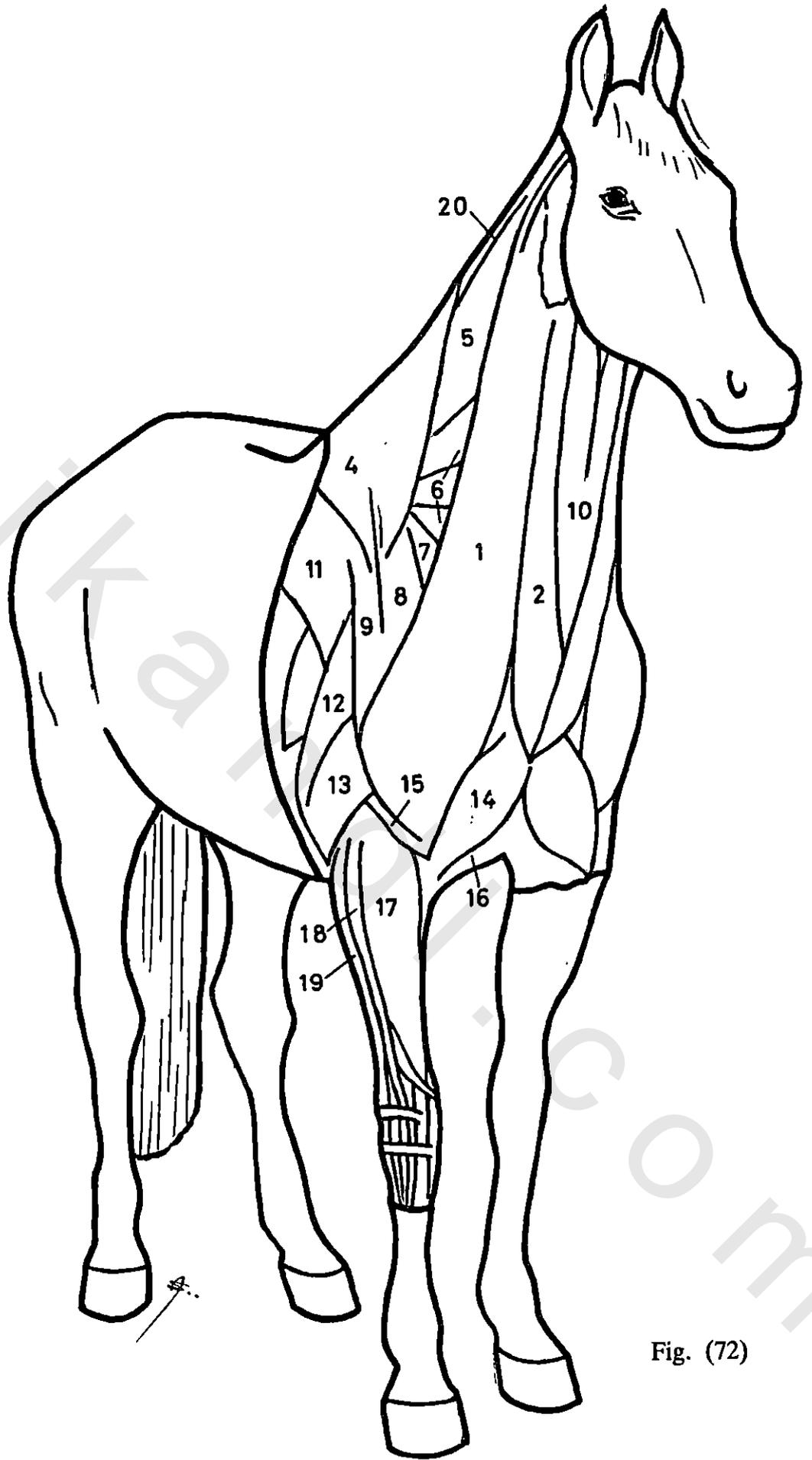


Fig. (72)

Fig. (72) Muscles of the neck

- 1 M. brachiocephalicus,
- 2 M. sternocephalicus,
- 3 M. trapezius cervicis,
- 4 M. trapezius thoracis,
- 5 M. splenius,
- 6 M. serratus ventralis cervicis,
- 7 M. subclavius (of M. pectoralis profundus),
- 8 M. supraspinatus,
- 9 M. deltoides,
- 10 M. sternohyoideus & M. sternothyroideus,
- 11 M. latissimus dorsi,
- 12 M. triceps brachii (long head),
- 13 M. triceps brachii (lateral head),
- 14 M. pectoralis descendens (of M. pectoralis superficialis),
- 15 M. brachialis,
- 16 M. pectoralis transversus (of M. pectoralis superficialis),
- 17 M. extensor carpi radialis,
- 18 M. extensor digitalis communis,
- 19 M. extensor digitalis lateralis,
- 20 M. rhomboides cervicis.

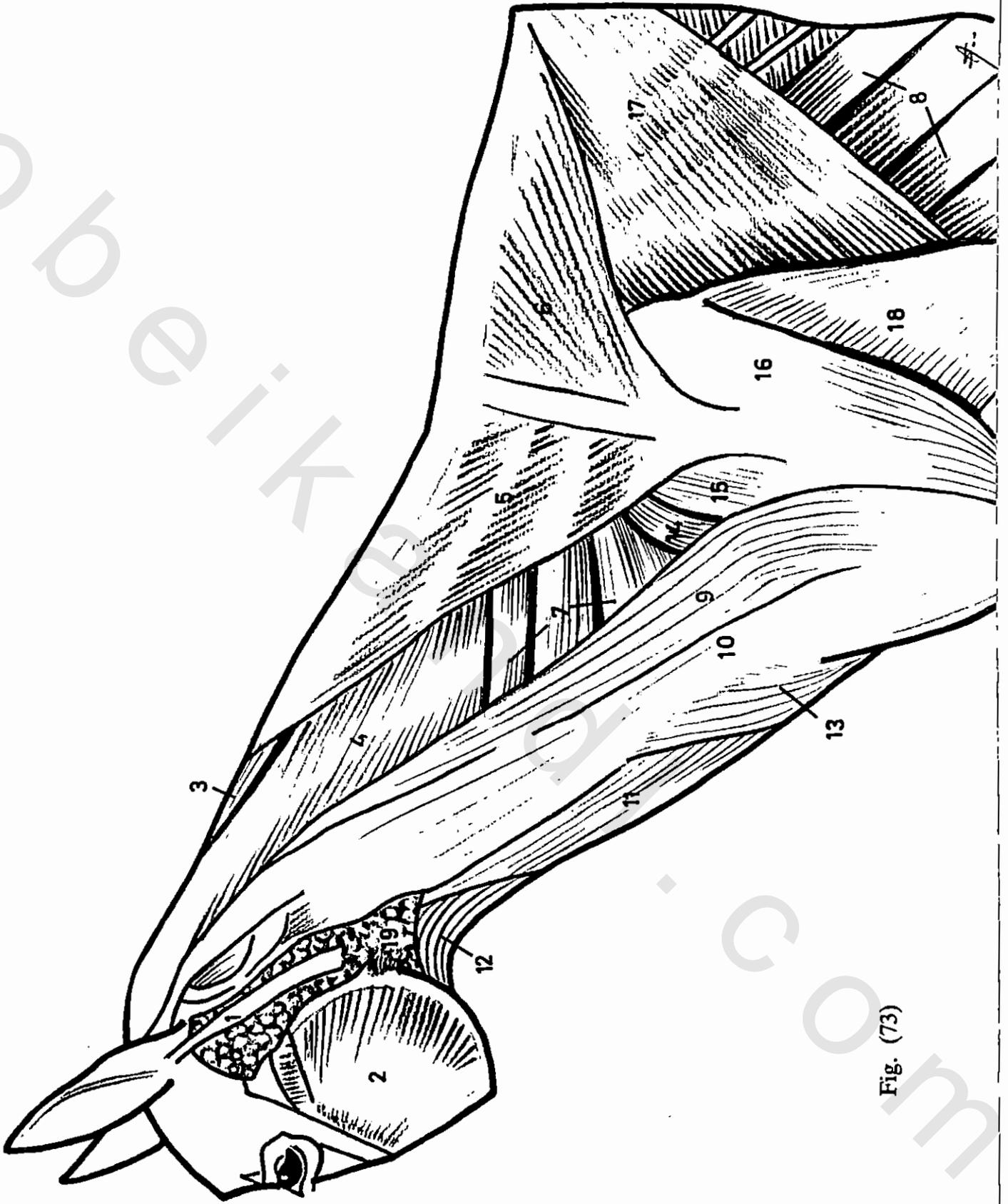


Fig. (73)

**Fig. (73) (First layer)**

- 1 *M. auricularis inferioris*,
- 2 *M. masseter*,
- 3 *M. rhomboideus cervicis*,
- 4 *M. splenius*,
- 5 *M. trapezius cervicis*,
- 6 *M. trapezius thoracis*,
- 7 *M. serratus ventralis cervicis*,
- 8 *M. serratus ventralis thoracis*,
- 9, 10 *M. brachiocephalicus*,
- 11 *M. sternocephalicus*,
- 12 *M. omohyoideus*,
- 13 *M. cutaneus colli*,
- 14 *M. subclavius* (of *M. pectoralis profundus*),
- 15 *M. supraspinatus*,
- 16 *M. deltoideus*,
- 17 *M. latissimus dorsi*,
- 18 *M. triceps brachii* (long head),
- 19 Parotid gland.

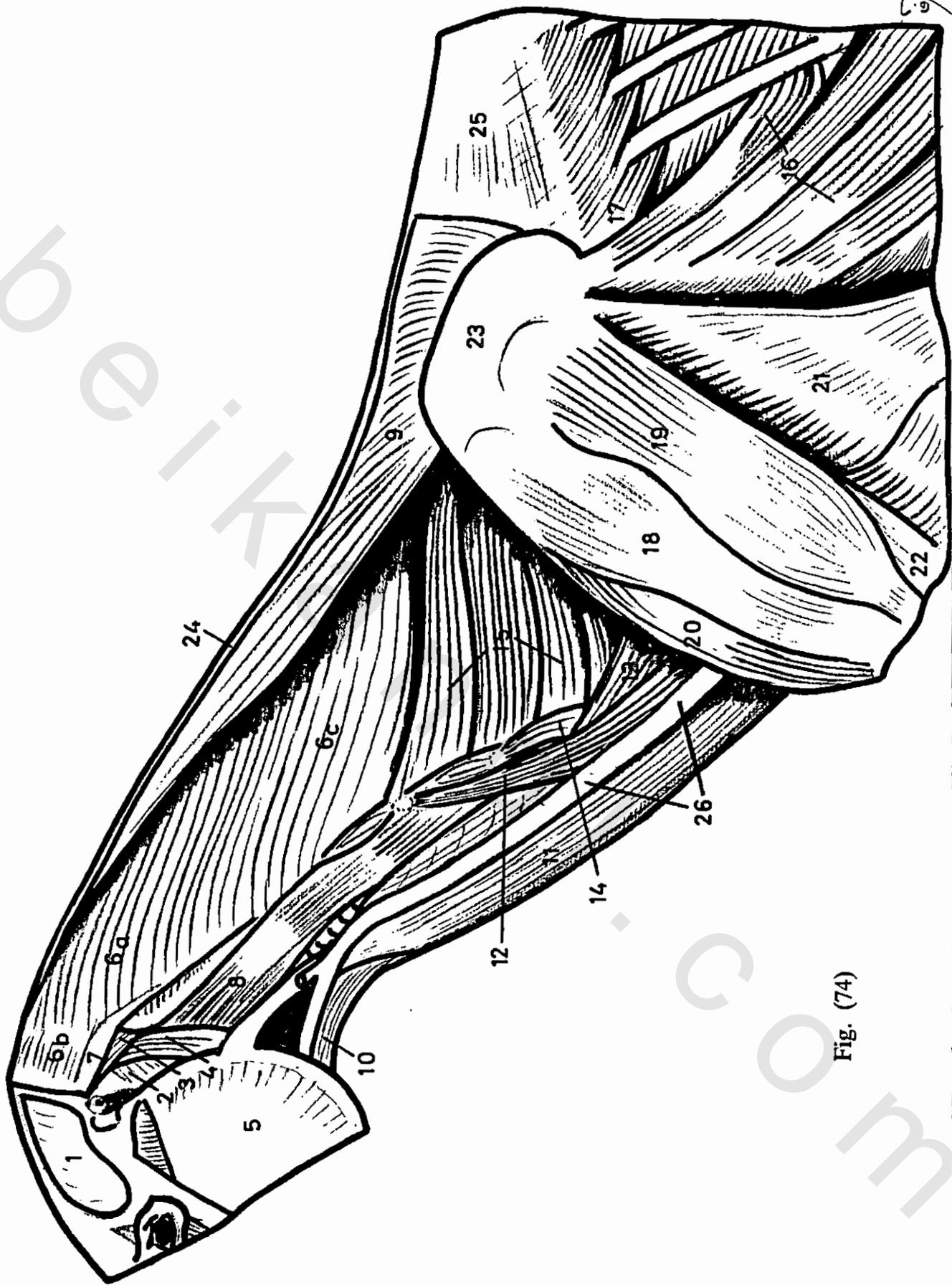


Fig. (74)

Fig. (74) Neck (Second Layer)

- 1 M. temporalis,
- 2 M. jugulothyoideus,
- 3 M. obliquus capitis (cran.),
- 4 M. jugulomandibularis,
- 5 M. masseter,
- 6 a,b,c, M. splenius,
- 7 M. longissimus capitis (insertion),
- 8 M. longus capitis,
- 9 M. rhomboides,
- 10 M. sternohyoideus,
- 11 M. sternocephalicus,
- 12 M. scalenus (ventral part),
- 13 M. scalenus (dorsal part),
- 14 M. intertransversarius cervicis,
- 15 M. serratus ventralis cervicis,
- 16 M. serratus ventralis thoracis,
- 17 M. serratus dorsalis cranialis,
- 18 M. supraspinatus,
- 19 M. infraspinatus,
- 20 M. subclavius (of M. pectoralis profundus),
- 21 M. triceps brachii (long head),
- 22 M. teres minor,
- 23 Scapular cartilage,
- 24 Ligamentum nuchae,
- 25 Lumbodorsal fascia,
- 26 Jugular vein,

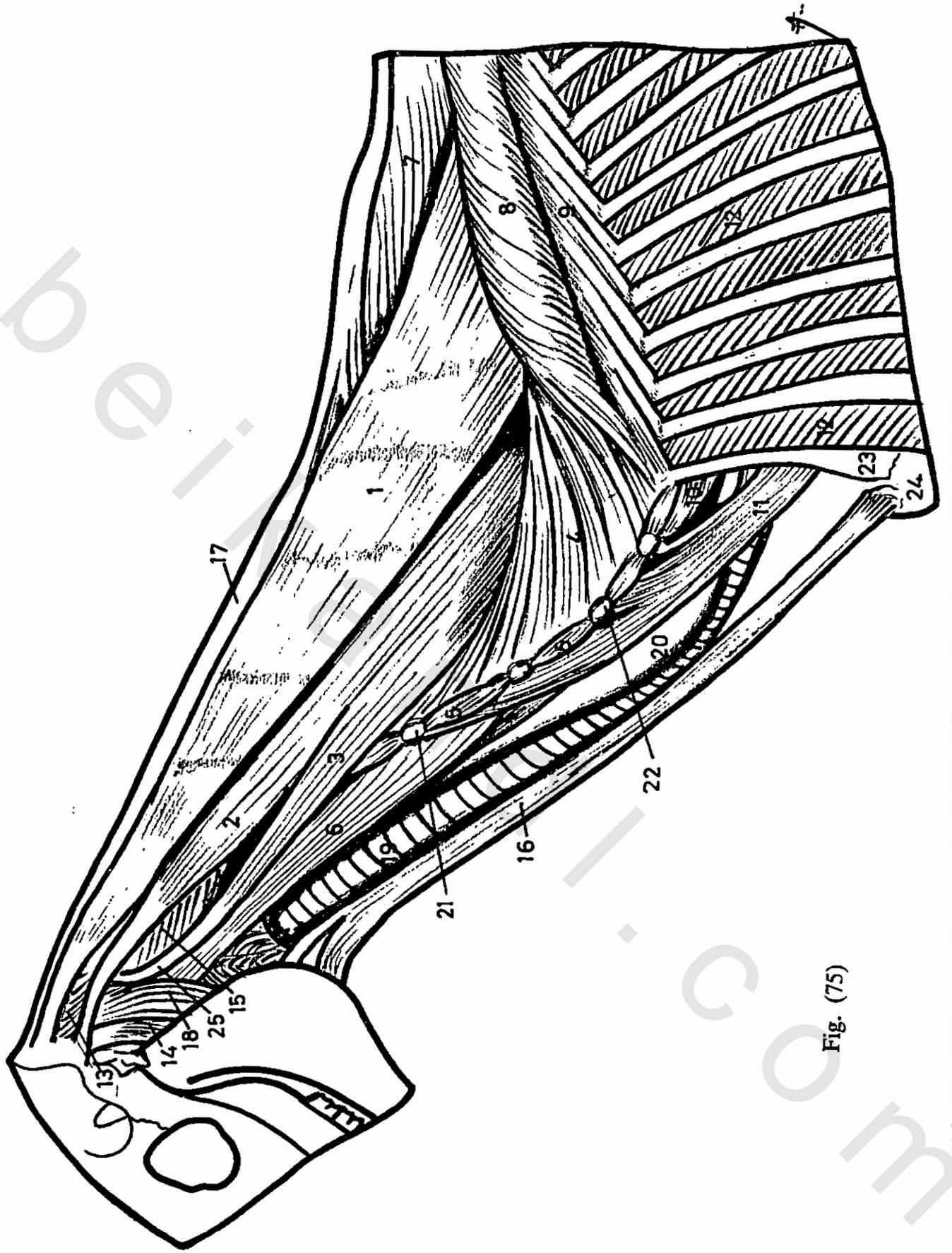


Fig. (75)

Fig. (75) Neck (Third Layer)

- 1 *M. semispinalis capitis*,
- 2 *M. longissimus capitis*,
- 3 *M. longissimus atlantis*,
- 4 *M. longissimus cervicis*,
- 5 *Mm. intertransversarii cervicis*,
- 6 *M. longus capitis*,
- 7 *M. spinalis*,
- 8 *M. longissimus dorsi*,
- 9 *M. iliocostalis*,
- 10 *M. scalenus (dorsal part)*,
- 11 *M. scalenus (ventral part)*,
- 12 *Mm. intercostales externi*,
- 13 *M. obliquus capitis cranialis*,
- 14 *M. jugulothyoideus*,
- 15 *M. obliquus capitis caudalis*,
- 16 *Mm. sternohyoideus & sternothyrohyoideus*,
- 17 *Ligamentum nuchae*,
- 18 *M. jugulomandibularis*,
- 19 Trachea,
- 20 Oesophagus,
- 21 Transverse process of cervical vertebra IV,
- 22 Transverse process of cervical vertebra VI,
- 23 First rib,
- 24 Manubrium sterni,
- 25 Wing of atlas.

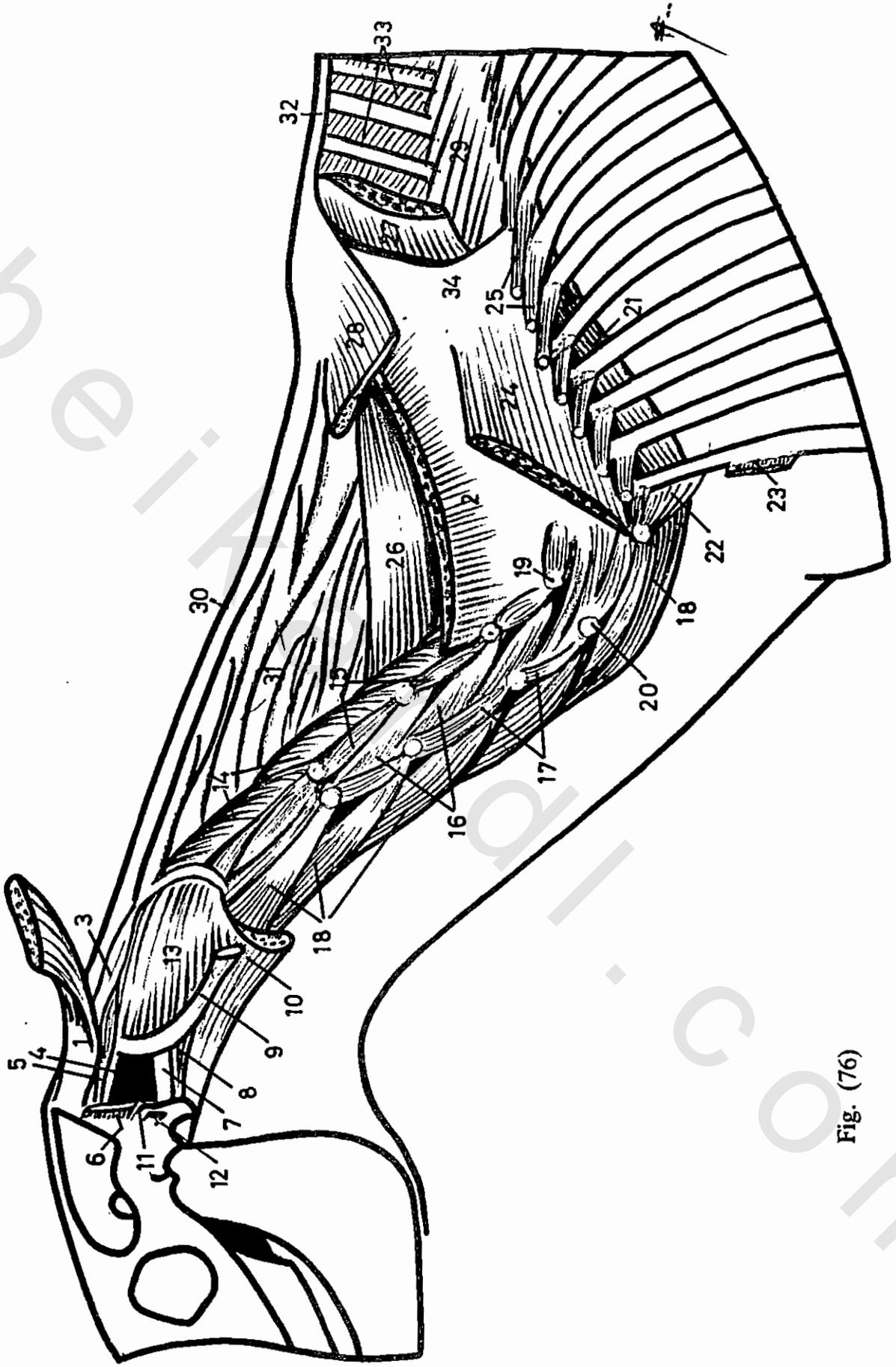


Fig. (76)

Fig. (76) Neck (Fourth Layer)

- 1, 2 M. semispinalis capitis,
- 3 M. rectus capitis dorsalis major,
- 4 M. rectus capitis dorsalis minor,
- 5 M. rectus capitis dorsalis intermedius,
- 6 M. obliquus capitis (cranialis),
- 7 M. rectus capitis lateralis,
- 8 M. rectus capitis ventralis,
- 9 M. longissimus atlantis (insertion),
- 10 M. longus capitis,
- 11 M. longissimus capitis (insertion),
- 12 M. brachiocephalicus (insertion),
- 13 M. obliquus capitis caudalis,
- 14 M. multifidus cervicis,
- 15, 16, 17 Mm. intertransversarii cervicis,
- 18 M. longus colli (cervical part),
- 19 Cranial articular process of cervical vertebra VII,
- 20 Transverse process of cervical vertebra VI,
- 21 M. longus colli (thoracic part),
- 22 M. scalenus (dorsal part),
- 23 M. scalenus (origin of ventral part),
- 24 M. longissimus cervicis,
- 25 Mm. levator costarum,
- 26 M. spinalis cervicis,
- 27 M. spinalis dorsi,
- 28 M. splenius,
- 29 M. multifidus dorsi,
- 30 Occipital part of Lig. nuchae,
- 31 Cervical part of Lig. nuchae,
- 32 Supraspinal ligament,
- 33 Ligg. interspinales.

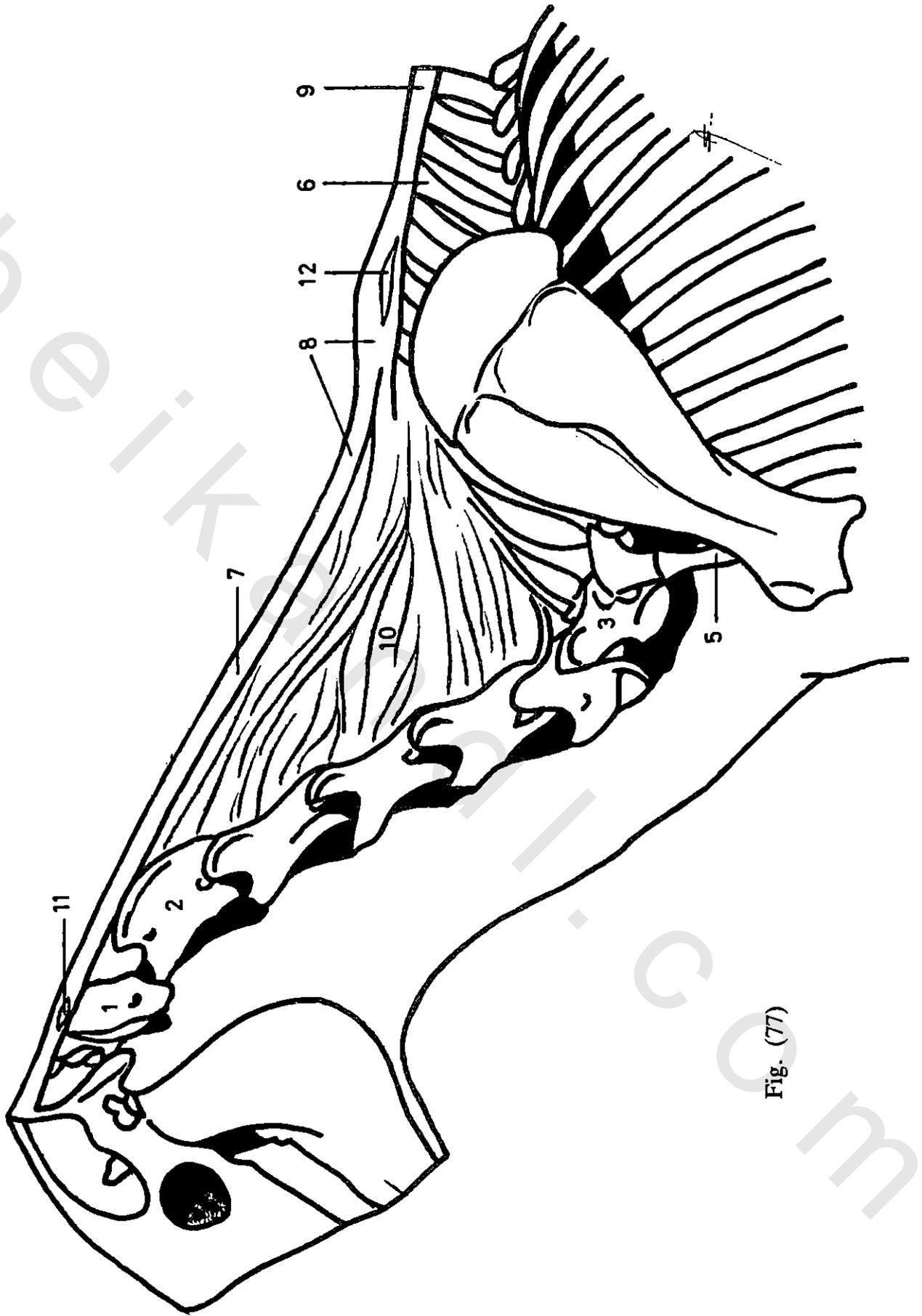


Fig. (77)

**Fig. (77) Ligamentum nuchae**

- 1 atlas,
- 2 epistropheus (axis),
- 3 cervical vertebra VII,
- 4 spinal process of first thoracic vertebra,
- 5 first rib,
- 6 spinal process of the thoracic vertebra VII,
- 7, 8 occipital part of Lig. nuchae,
- 9 supraspinus ligament,
- 10 cervical (lamellar) part of Lig. nuchae,
- 11 bursa subligamentosa nuchalis cranialis,
- 12 bursa subligamentosa supraspinalis.

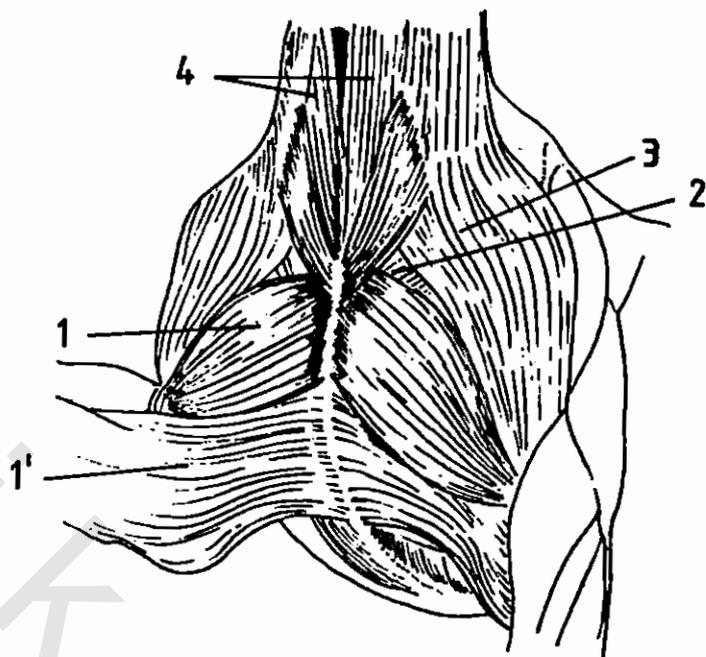


Fig. (78) Pectoral muscles of the horse

- 1, 1' M. pectoralis superficialis,
- 1 M. pectoralis descendens,
- 1' M. pectoralis transversus,
- 2 M. pectoralis profundus (ascendens),
- 3 M. brachiocephalicus,
- 4 M. sternothyrohyoideus.

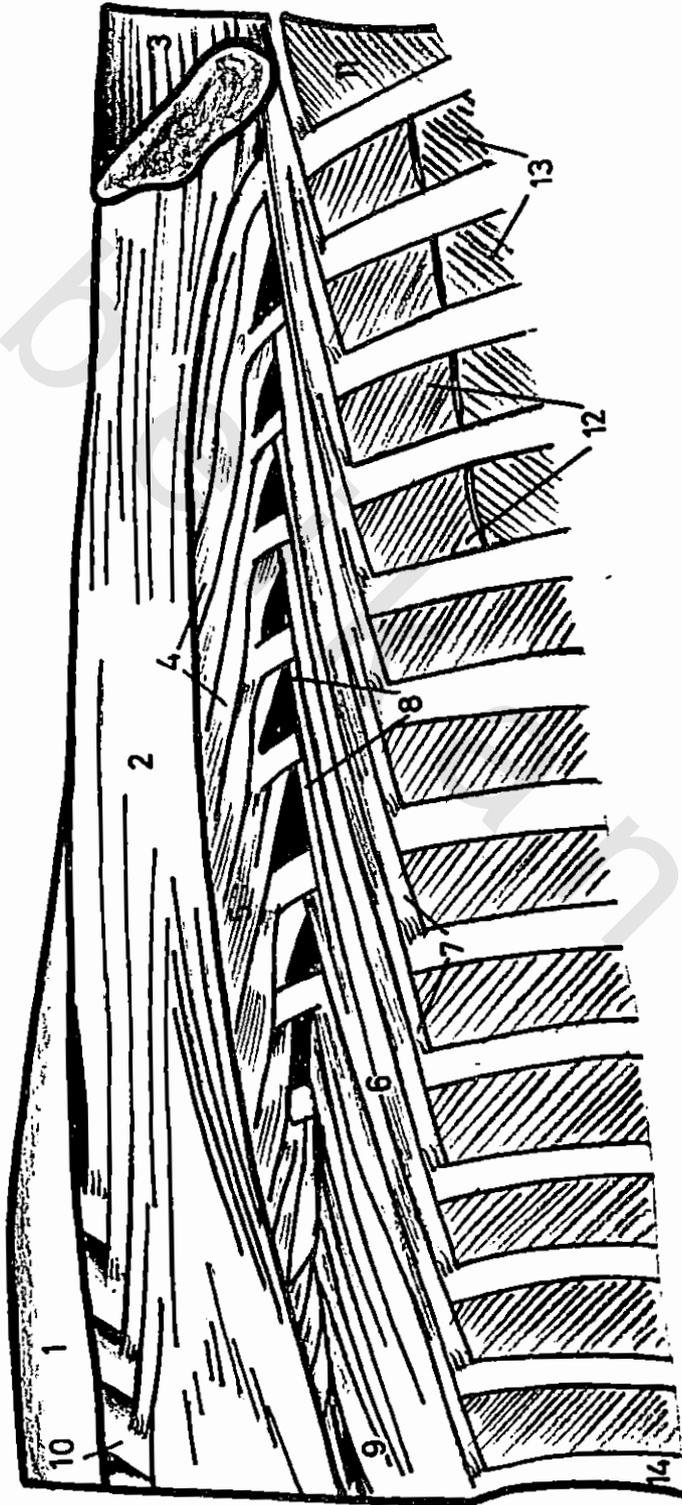


Fig. (79) Muscles of the thorax

- |    |                               |    |  |
|----|-------------------------------|----|--|
| 1  | Lig. nuchae (funicular part), | 2  | M. spinalis et semispinalis dorsi et cervicis, |
| 3  | M. longissimus dorsi,         | 4  | M. multifidus dorsi,                           |
| 5  | Mm. levator costarum,         | 6  | M. iliocostalis,                               |
| 7  | Insertion of 6,               | 8  | Origins of 6,                                  |
| 9  | M. longissimus cervicis,      | 10 | Spinous process of the first thoracic vertebra |
| 11 | M. retractor costae,          | 12 | Mm. intercostales externi,                     |
| 13 | Mm. intercostales interni,    | 14 | First rib.                                     |

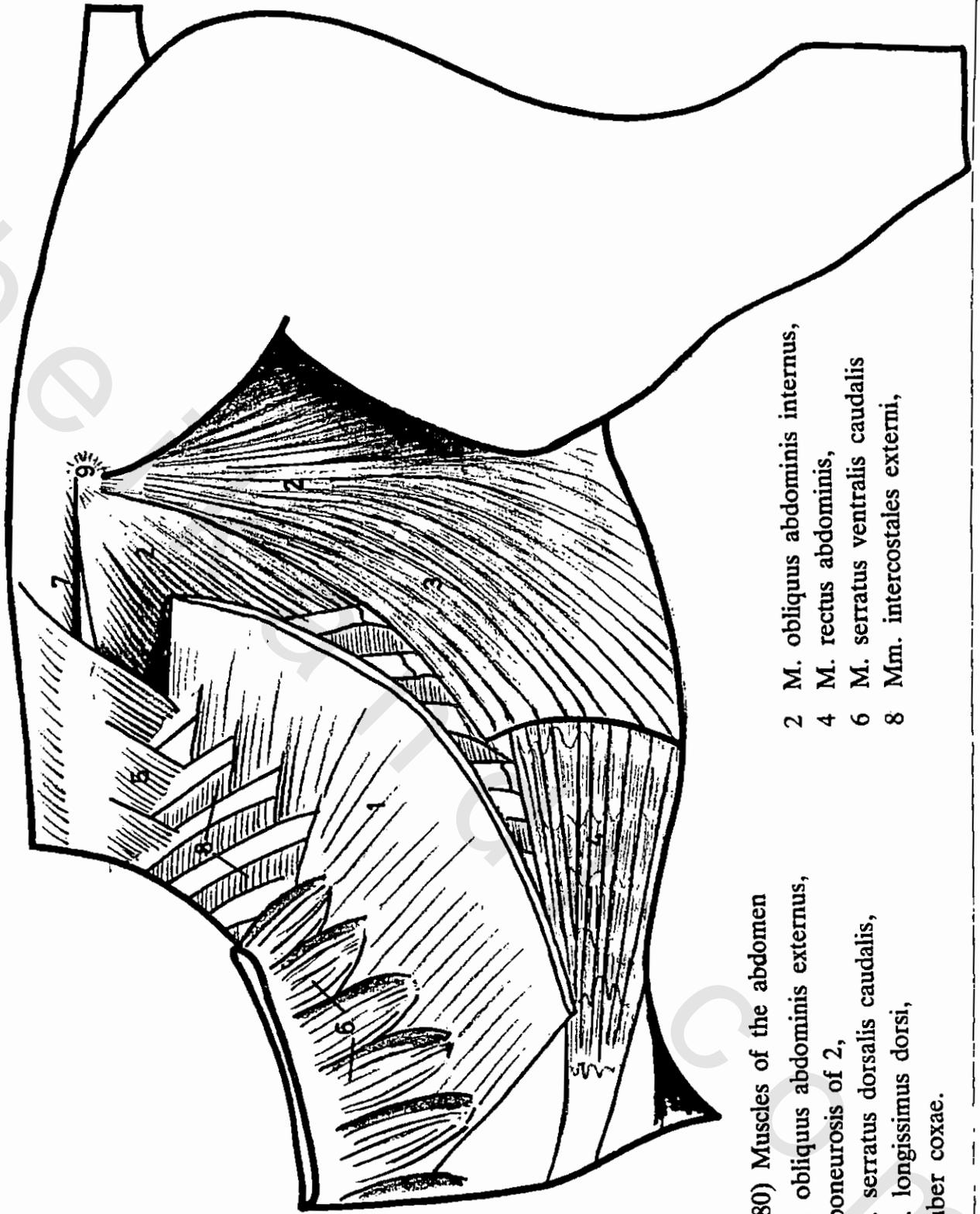
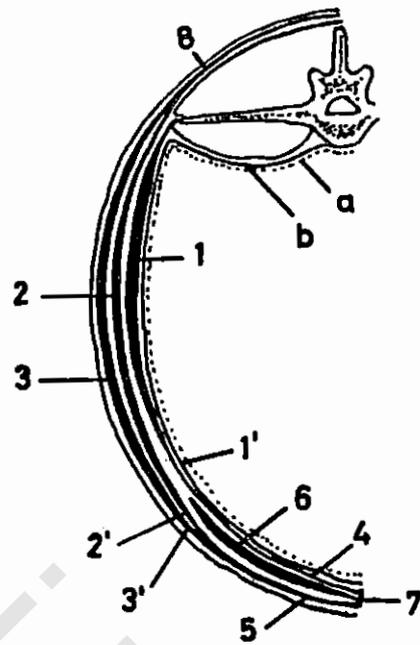
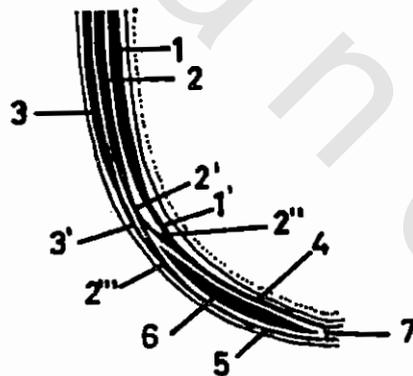


Fig. (80) Muscles of the abdomen

- |   |                                 |   |                                 |
|---|---------------------------------|---|---------------------------------|
| 1 | M. obliquus abdominis externus, | 2 | M. obliquus abdominis internus, |
| 3 | Aponeurosis of 2,               | 4 | M. rectus abdominis,            |
| 5 | M. serratus dorsalis caudalis,  | 6 | M. serratus ventralis caudalis  |
| 7 | M. longissimus dorsi,           | 8 | Mm. intercostales externi,      |
| 9 | Tuber coxae.                    |   |                                 |



Horse



Dog

Fig. (81) Rectal sheath (Horse and dog)

- |    |                               |      |                               |
|----|-------------------------------|------|-------------------------------|
| 1  | M. transversus abdominis,     | 1̇   | Its aponeurosis,              |
| 2  | M. obliquus abdominis int.,   | 2̇   | Its aponeurosis,              |
| 2" | The inner division of 2̇,     | 2''' | The outer division of 2̇,     |
| 3  | M. obliquus abdominis ext.,   | 3̇   | Its aponeurosis,              |
| 4  | Inner layer of rectal sheath, | 5    | Outer layer of rectal sheath, |
| 6  | M. rectus abdominis,          | 7    | Linea alba,                   |
| 8  | Fascia lumbodorsalis,         |      |                               |
| a  | Peritoneum,                   | b    | Fascia transversa,            |

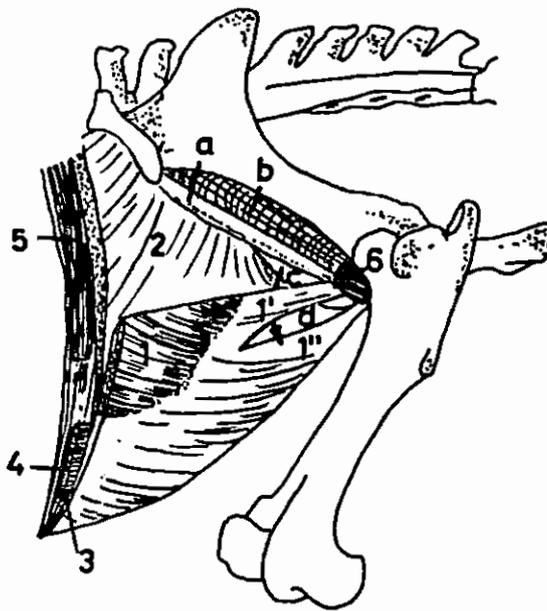


Fig. (82) Inguinal canal

- 1 M. obliquus abdominis ext.,
- 1' Its pelvic tendon,
- 1'' Its abdominal tendon,
- 2 M. obliquus abdominis,
- 3 Outer layer of rectal sheath,
- 4 M. rectus abdominis,
- 5 M. transversus abdominis,
- 6 M. iliopsoas,

- a Lig. inguinale,
- b Lamina iliaca,
- c Inner inguinal ring,
- d Outer inguinal ring.

Arrow indicates the inguinal canal.

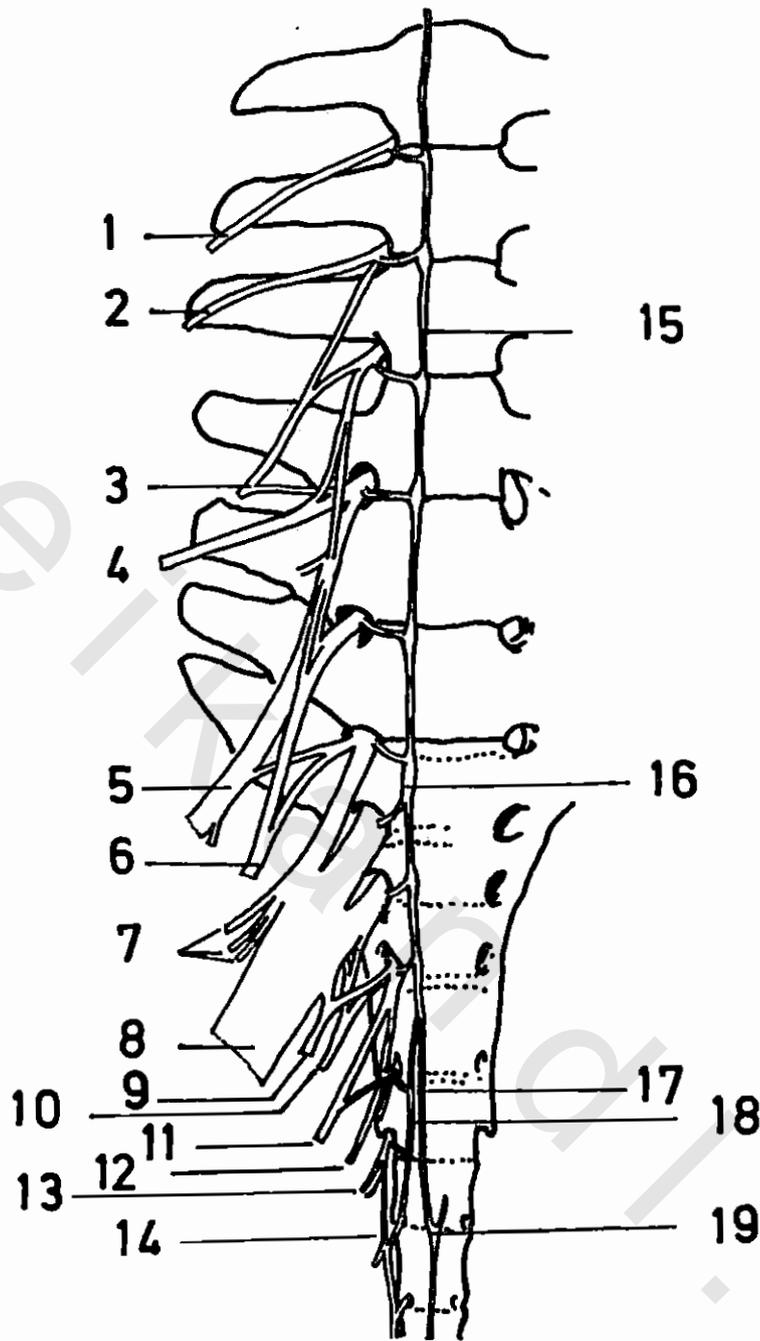


Fig. (83) Diagram of the lumbo-sacral plexus

- |                              |                              |
|------------------------------|------------------------------|
| 1 N. iliohypogastric,        | 2 N. ilioinguinalis,         |
| 3 N. genitofemoralis,        | 4 N. cutaneus femoris lat.,  |
| 5 N. femoralis,              | 6 N. obturatorius,           |
| 7 N. gluteus cranialis,      | 8 N. ischiadicus,            |
| 9 N. cutaneus femoris caud., | 10 N. gluteus caudalis,      |
| 11 N. pudendus,              | 12 N. haemorrhoidalis caud., |
| 13 Fifth sacral nerve,       | 14 First coccygeal nerve,    |
| 15 Sympathetic nerve cord,   | 16 Sympathetic ganglion,     |
| 17 Medial branch of 15,      | 18 Lateral branch of 15,     |
| 19 Ganglion impar.           |                              |

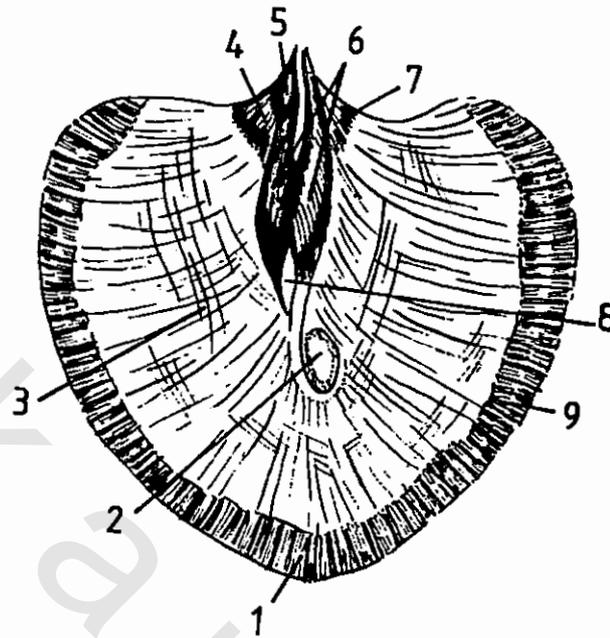


Fig. (84) Diaphragm of the horse (Caudal View)

- |                       |                            |
|-----------------------|----------------------------|
| 1 Pars sternalis,     | 2 Foramen venae cavae,     |
| 3 Centrum tendineum,  | 4 Left lat. and med. crus, |
| 5 Hiatus aorticus,    | 6 Right medial crus,       |
| 7 Right lateral crus, | 8 Hiatus oesophagicus,     |
| 9 Pars costalis.      |                            |

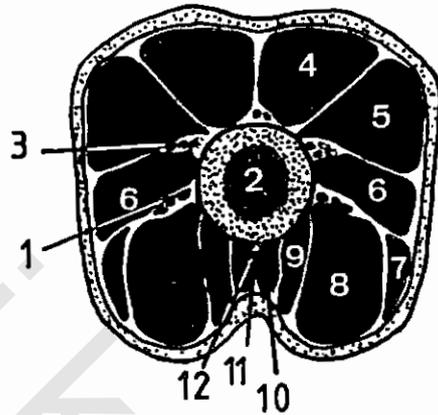
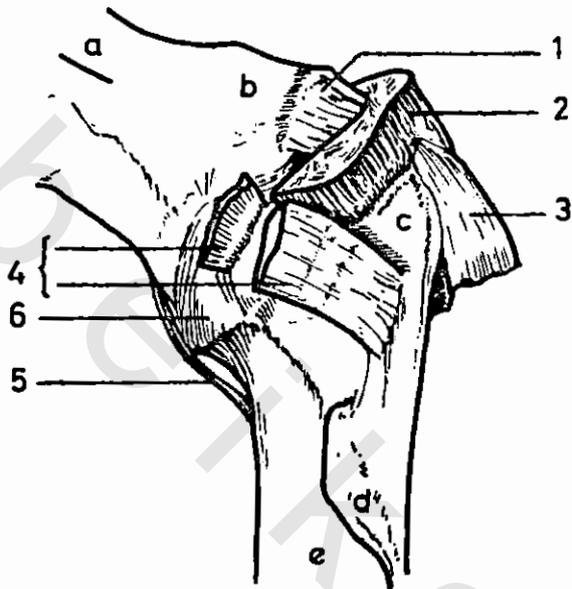
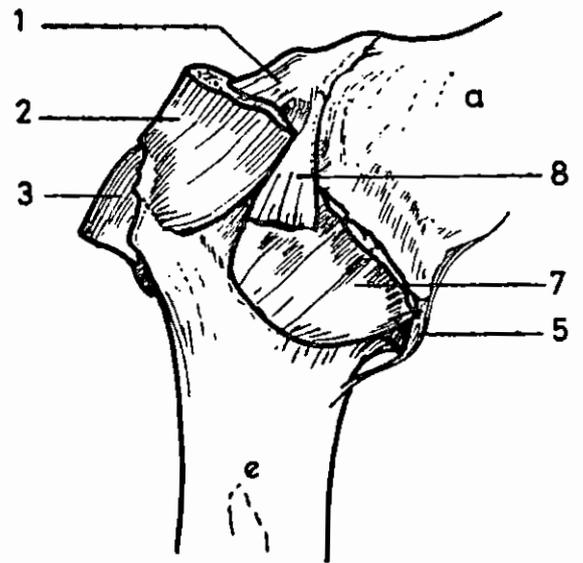


Fig. (85) Cross section in the tail of the horse.

- 1 R. ventralis of A. and V. caudalis (coccygea) lateralis,
- 2 Third caudal (coccygeal) vertebra,
- 3 R. dorsalis of A. and V. caudalis (coccygea) lateralis,
- 4 M. sacrocaudalis (-coccygeus) dorsalis medialis,
- 5 M. sacrocaudalis (-coccygeus) dorsalis lateralis,
- 6 M. intertransversarius caudalis,
- 7 M. caudalis (coccygeus),
- 8 M. sacrocaudalis (-coccygeus) ventralis lateralis,
- 9 M. sacrocaudalis (-coccygeus) ventralis medialis,
- 10 M. rectocaudalis (-coccygeus),
- 11 A. caudalis (coccygea),
- 12 V. caudalis (coccygea).



LATERAL VIEW

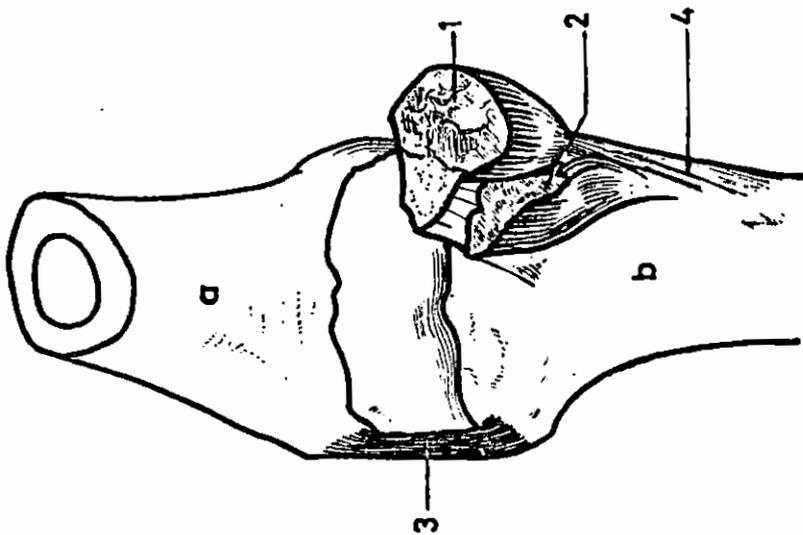


MEDIAL VIEW

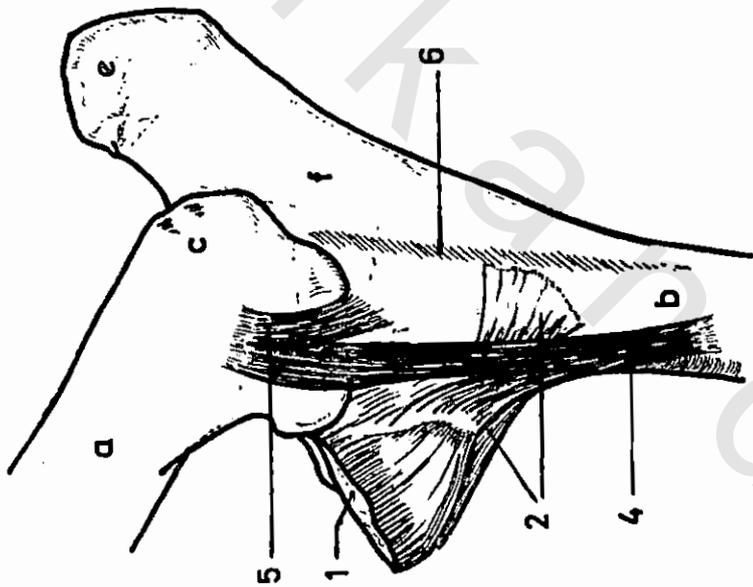
Fig. (86) Shoulder joint

- a scapula,
- c greater tubercle,
- 1 origin of M. biceps brachii,
- 3 M. biceps brachii,
- 5 M. articularis humeri,
- 7 M. subscapularis,

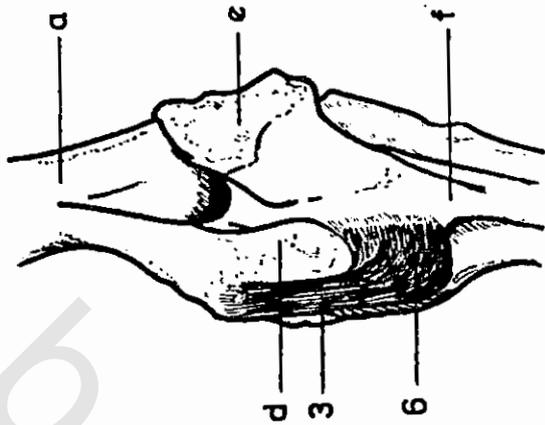
- b supraglenoid tubercle,
- d deltoid tuberosity, e humerus,
- 2 supraspinatus,
- 4 M. infraspinatus (insertion),
- 6 joint capsule,
- 8 M. coracobrachialis.



### CRANIAL VIEW



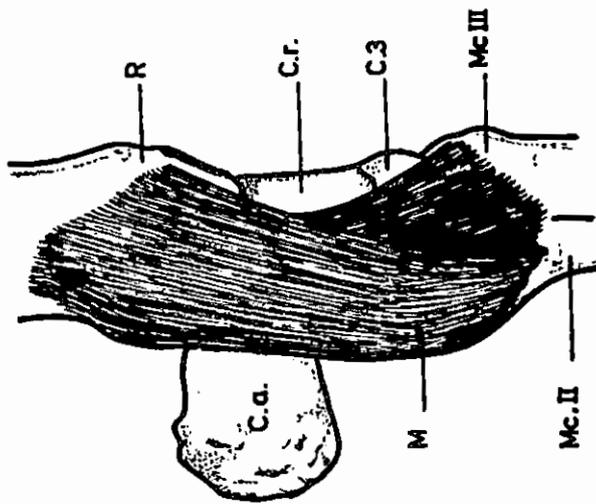
### MEDIAL VIEW



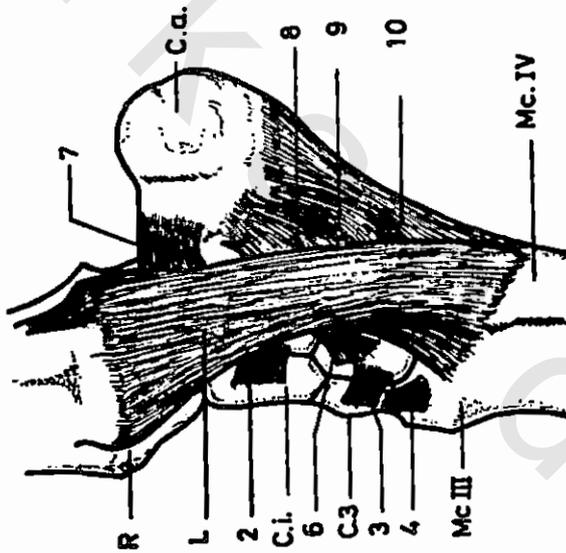
### CAUDAL VIEW

Fig. (87) Elbow joint

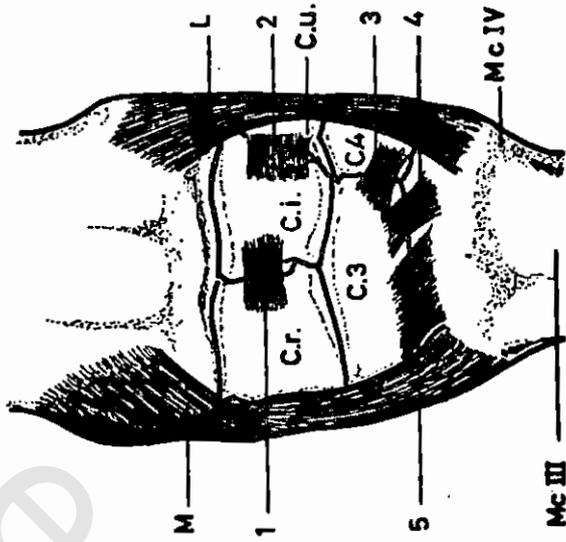
- a humerus,
- b radius,
- c medial epicondyle of humerus
- d lat. epicondyle of humerus, e olecranon, f ulna,
- 1 M. biceps brachii, 2 M. brachialis, 3 lat. collateral ligament,
- 4 medial collateral lig. (long), 5 med. collateral ligament (short),
- 6 radioulnar ligament (transverse or arciform lig.).



**MEDIAL VIEW**



**LATERAL VIEW**



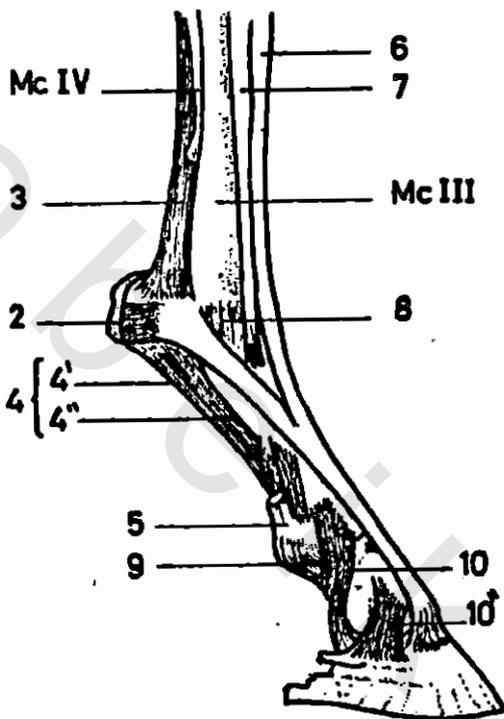
**DORSAL VIEW**

Fig. (88) Carpal joints

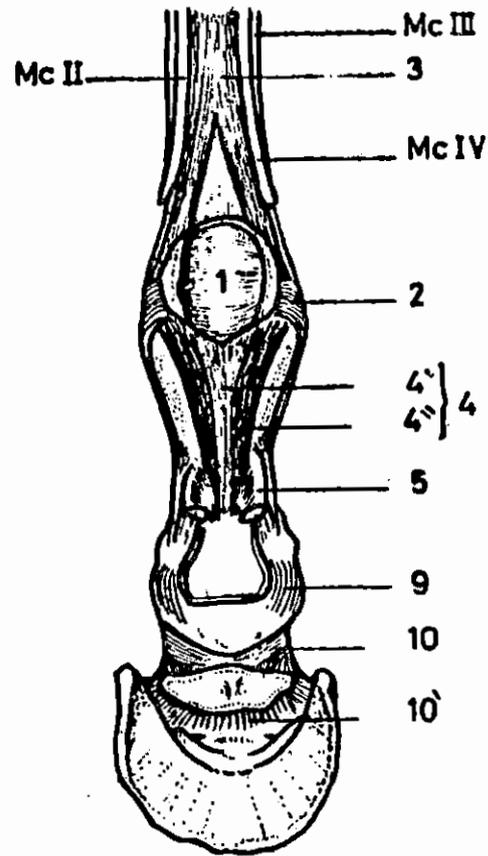
C.a. Accessory carpal bone,  
 C.a. Ulnar carpal bone,  
 L lat. collateral carpal lig.,  
 Mc.III metacarpal bone III,  
 1-6 dorsal short lig.,  
 9,10 distal lig. of C.a.

C.i. Intermediate carpal bone,  
 C.3 third carpal bone,  
 M med. collateral carpal lig.,  
 Mc.IV metacarpal bone IV,  
 7 proximal lig. of C.a.

C.r. Radial carpal bone,  
 C.4 fourth carpal bone,  
 Mc.II metacarpal bone II,  
 R radius,  
 8 middle lig. of C.a.



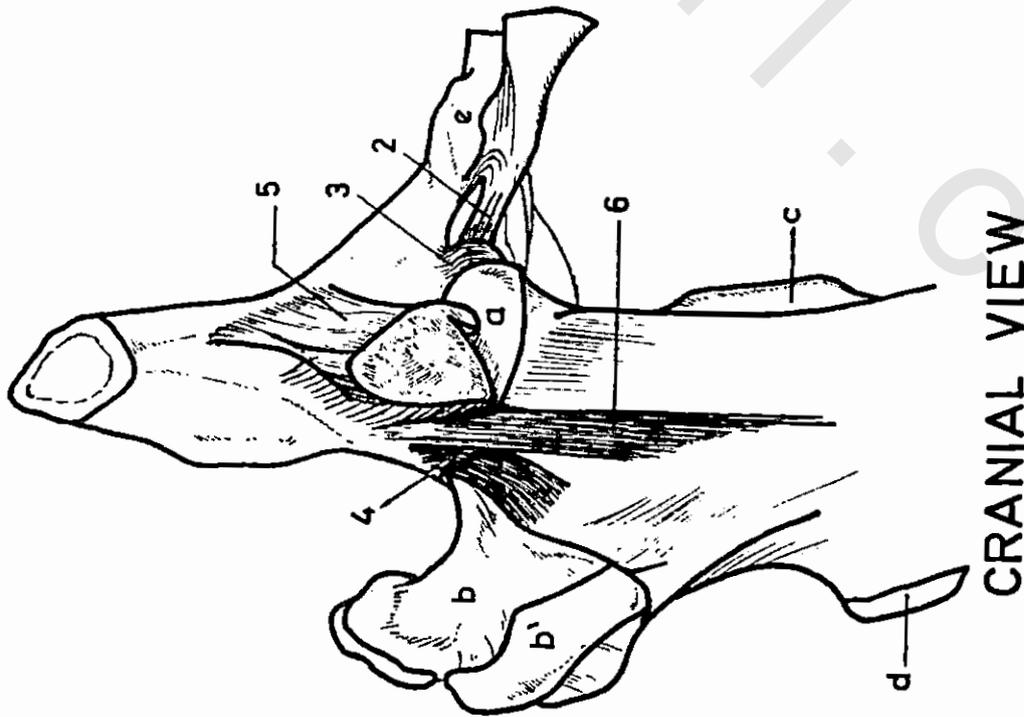
LATERAL VIEW



PALMAR VIEW

Fig. (89) Ligaments of the digits

- 1 Lig. metacarpointersesamoideum,
  - 2 Lig. sesamoideum laterale,
  - 3 M. interosseus (suspensory ligament),
  - 4 Lig. sesamoideum distale,
  - 4 Lig. sesamoideum rectum,
  - 4' Lig. sesamoideum obliquum,
  - 5 M. flexor digitorum superficialis,
  - 6 M. extensor digitorum communis,
  - 7 M. extensor digitorum lateralis,
  - 8 Lig. collaterale laterale (of the fetlock joint),
  - 9 Lig. collaterale laterale (of the pastern joint),
  - 10 Lig. sesamoideum collaterale laterale,
  - 10 Lig. phalangoseseamoideum,
  - 10<sup>a</sup> Lig. collaterale laterale (of the coffin joint),
- Mc II second metacarpal bone,  
 Mc III third metacarpal bone,  
 Mc IV fourth metacarpal bone.



## MEDIAL VIEW

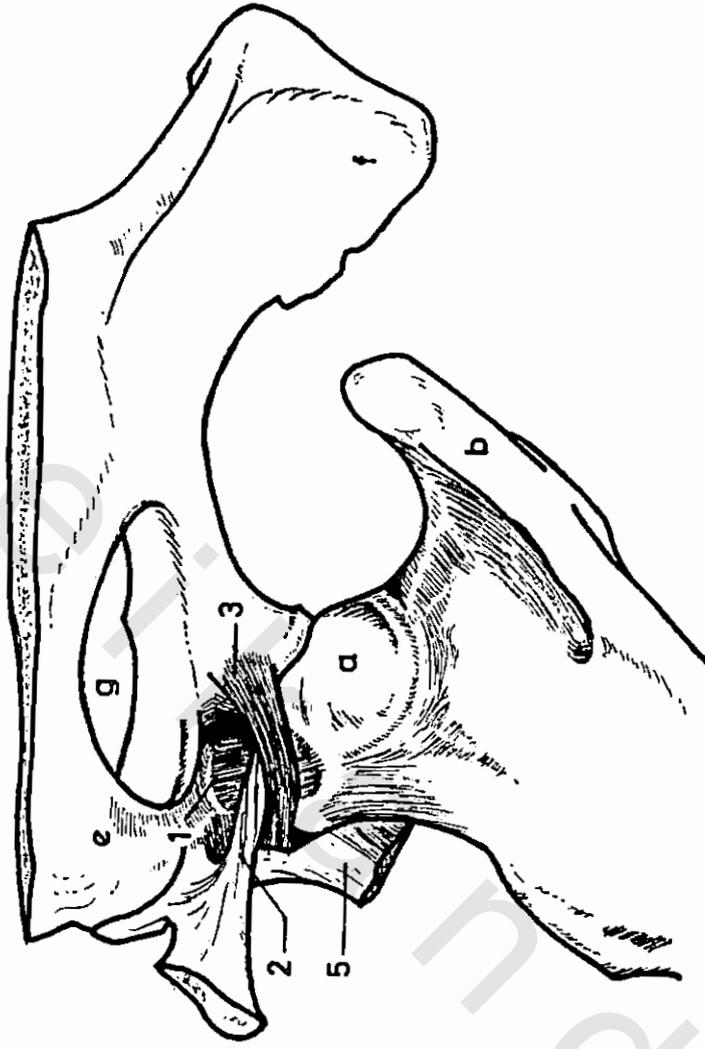
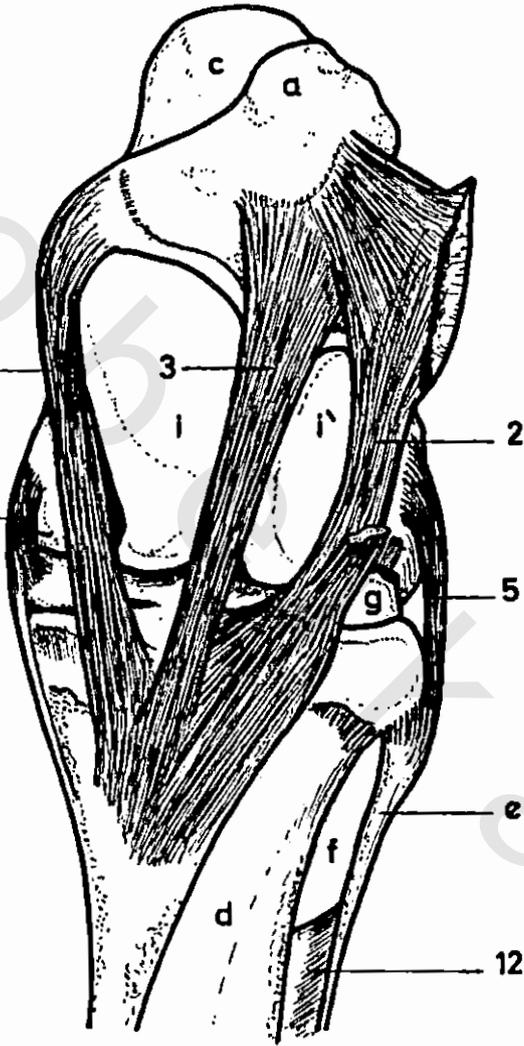
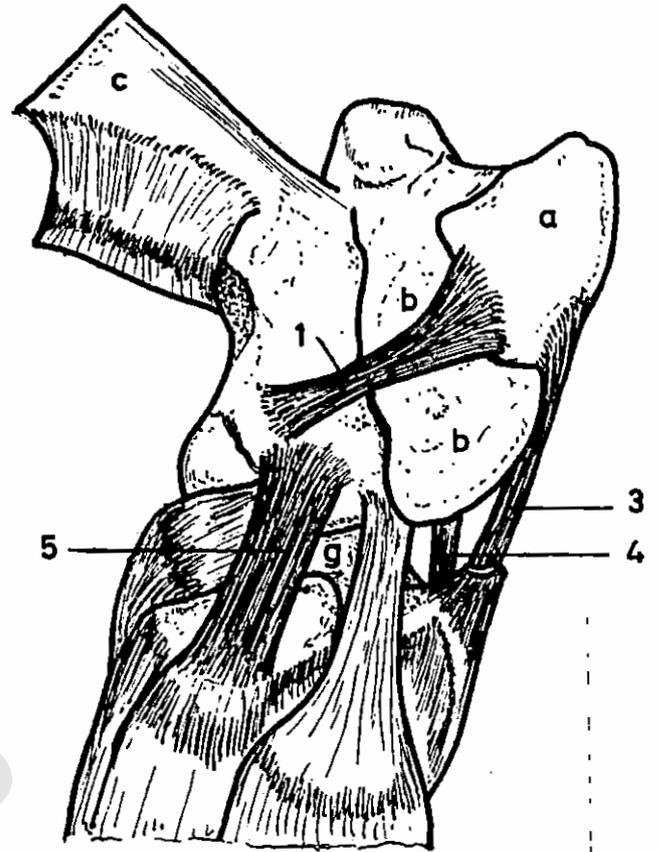


Fig. (90) Hip joint

- a head of femur, b greater trochanter, b' convexity of b, c lesser trochanter  
 d third trochanter, e pubis, f ischiatic tuberos., g obturator foramen  
 1 round ligament, 2 accessory lig. of the femur, 3 transverse acetabular lig.,  
 4 iliofemoral lig., 5 *M. rectus femoris*, 6 *M. articularis coxae*.



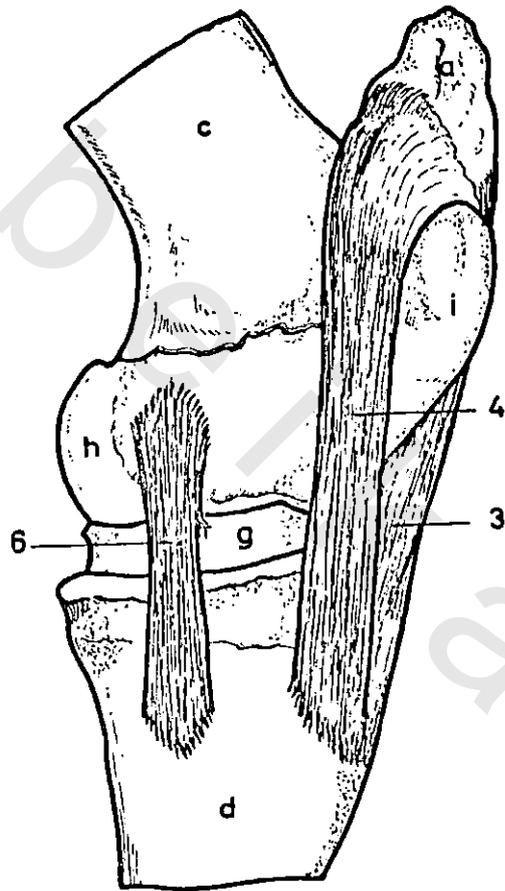
**CRANIAL VIEW**



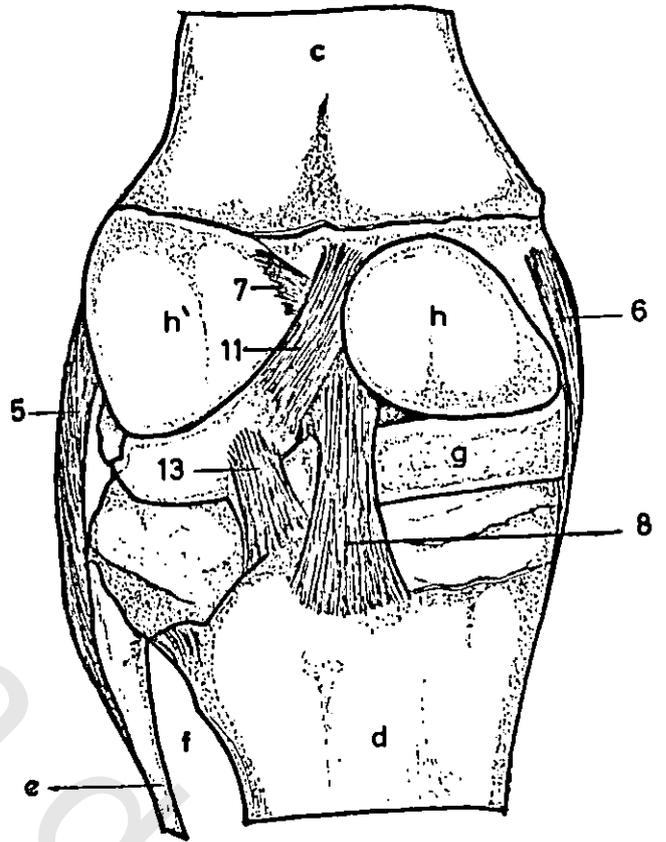
**LATERAL VIEW**

Fig. (91), (92), (93) Stifle joint

- |   |  |                       |
|---|--|-----------------------|
| a patella,                                | b joint capsule,                         | c shaft of femur,     |
| d tibia,                                  | e fibula,                                | f interosseous space, |
| g meniscus                                | h, h` med. & lat. condyles of the femur, |                       |
| i, i` med. & lat. ridges of the trochlea. |  |                       |
| 1 lat. femoropatellar lig.                | 2 lat. patellar lig.                     |                       |
| 3 middle patellar lig.                    | 4 medial patellar lig.                   |                       |
| 5 lat. femorotibial collat. lig.          | 6 med. femorotibial collat. lig.         |                       |
| 7 cranial cruciate lig.                   | 8 caudal cruciate lig.                   |                       |
| 9, 9` cranial lig. of menisci,            | 10 caudal lig. of medial meniscus,       |                       |
| 11 meniscofemoral lig. of lat. meniscus,  | 13 caudal lig. of lat. meniscus.         |                       |
| 12 interosseous membrane of leg,          |  |                       |



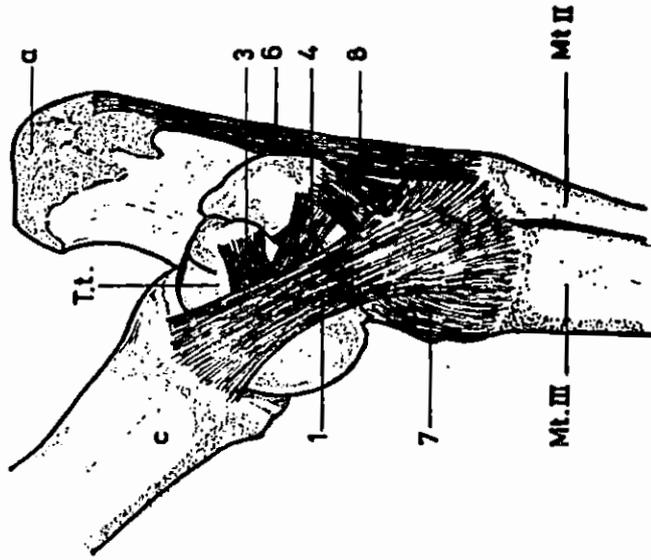
MEDIAL VIEW



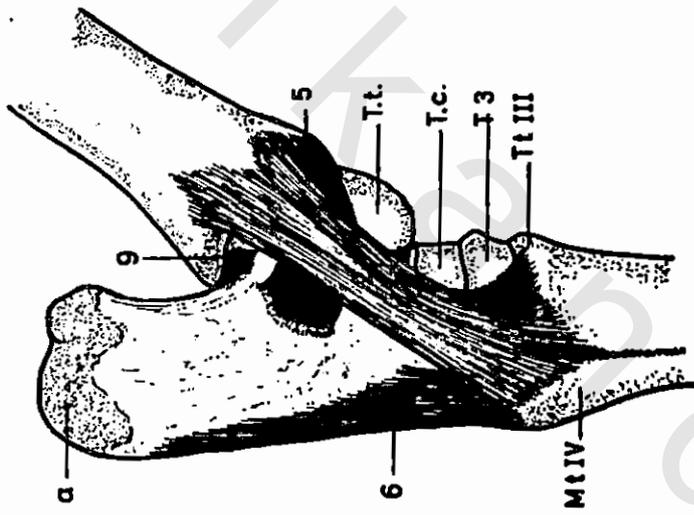
CAUDAL VIEW

Fig. (92) Stifle joint

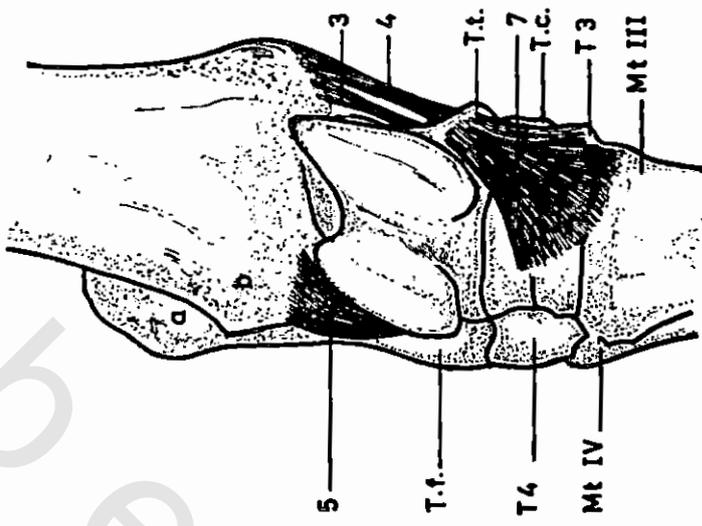




**MEDIAL VIEW**



**LATERAL VIEW**



**CRANIAL VIEW**

Fig. (94) Hock joint

- a calcaneal tuber,
- 5 lateral malleolus,
- c medial malleolus,
- T.c. central tarsal bone,
- T.f. fibular tarsal,
- T.t. tibial tarsal,
- T.3 third tarsal,
- T.4 fourth tarsal,
- Mt. II, Mt. III, Mt. IV metatarsal bones,
- 1 long med. collateral lig.,
- 2 long lat. collateral lig.,
- 3,4 branches of short part of med. collateral lig.,
- 5 short lat. collateral lig.,
- 6 plantar tarsal lig.,
- 7 dorsal tarsal lig.,
- 8 tarsometatarsal lig.,
- 9 lig. connecting lateral ridge of T.t. with processus cochlearis of T.f.

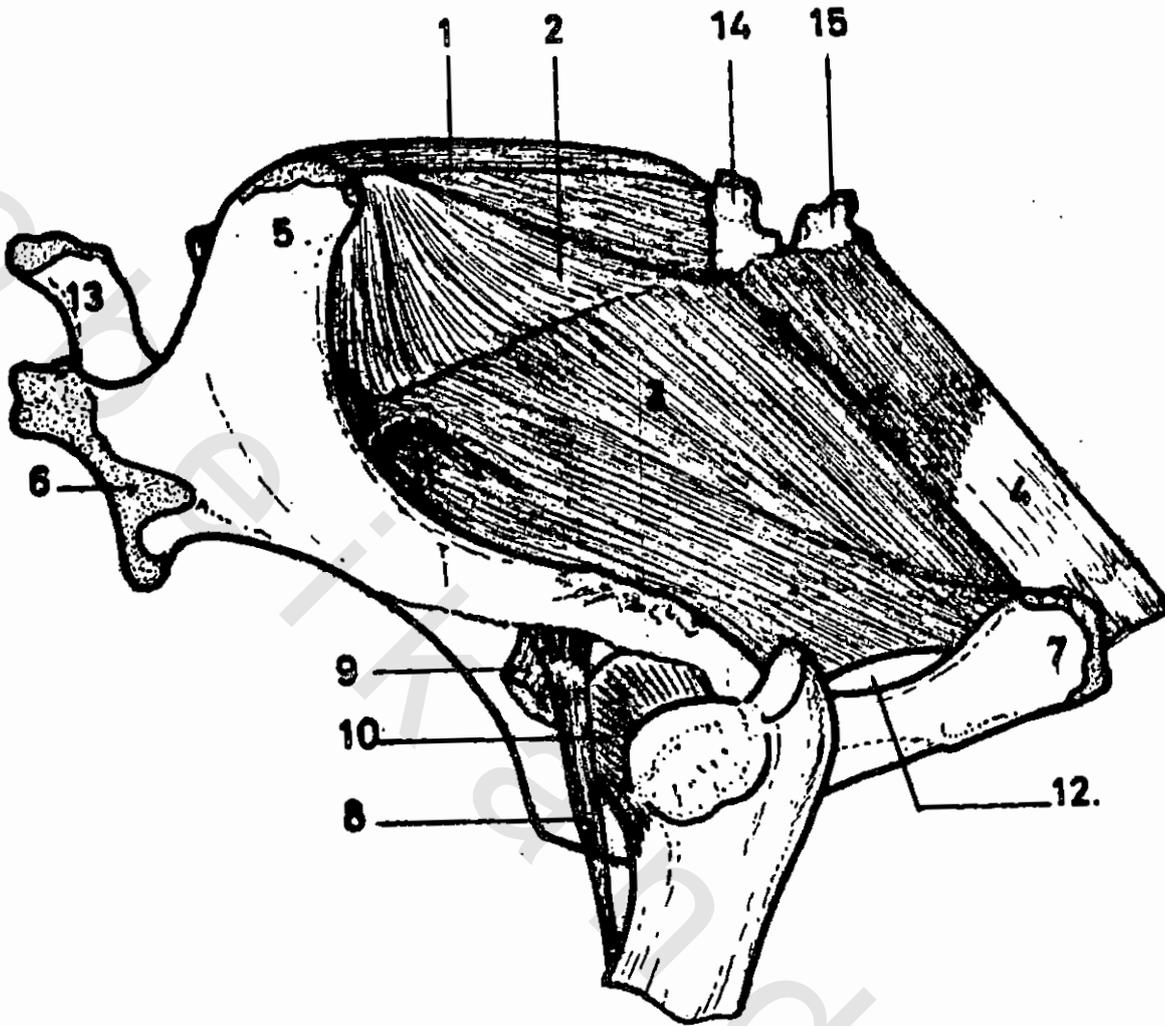


Fig. (95) Pelvic ligaments

- 1 Ligg. sacroiliaca dorsalia,
- 2 Ligg. sacroiliaca,
- 3 Lig. sacrotuberale latum,
- 4 M. semimembranosus,
- 5 Tuber sacrale,
- 6 Tuber coxae,
- 7 Tuber ischiadicum,
- 8 M. articularis coxae,
- 9 M. rectus femoris (lateral tendon of origin),
- 10 Capsule of the hip joint,
- 11 Foramen ischiadicum majus,
- 12 Foramen ischiadicum minus,
- 13 Fifth lumbar vertebra,
- 14, 15 1<sup>st</sup>, 2<sup>nd</sup> caudal vertebrae.

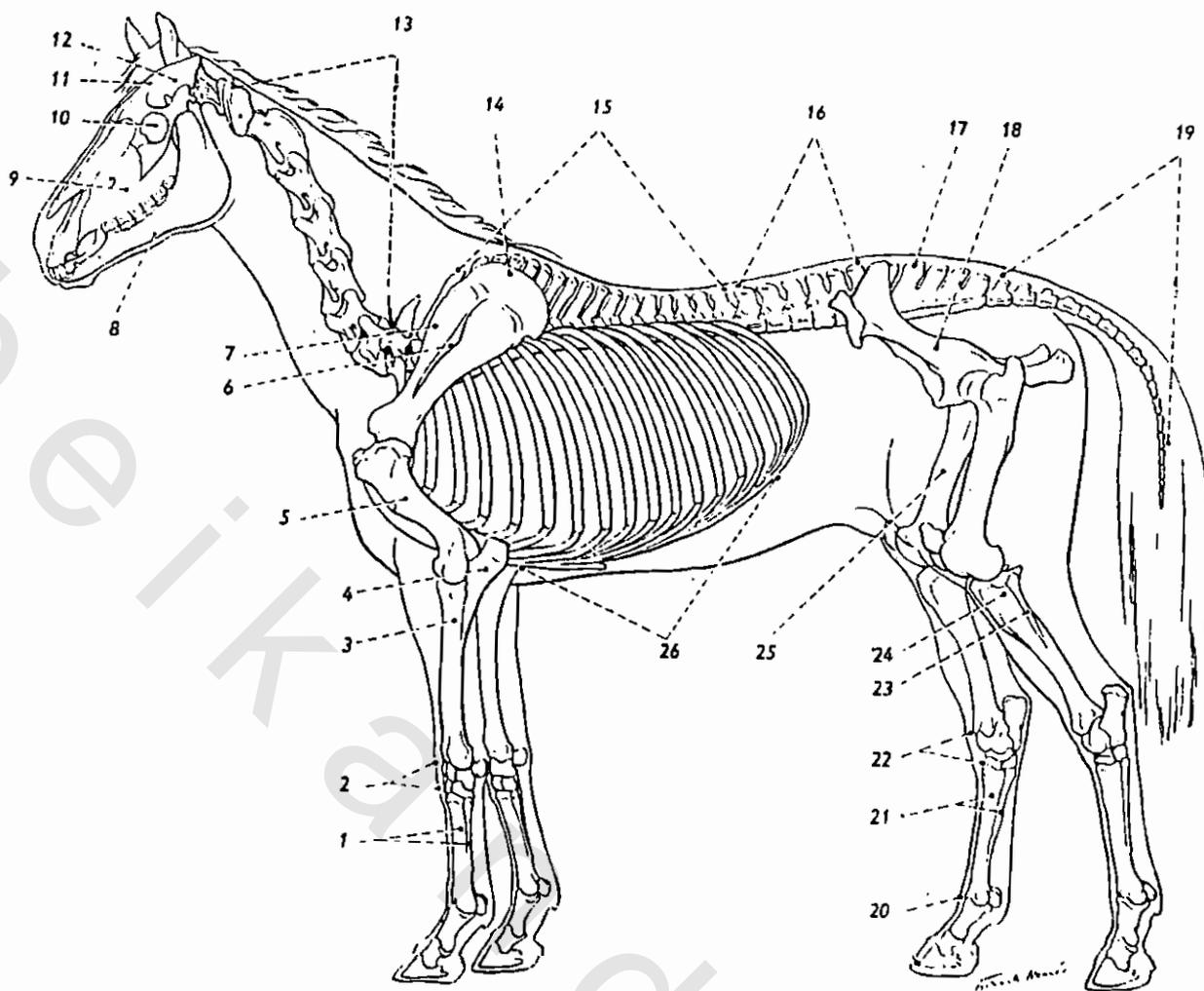


Fig. (96) Skeleton of the horse.

- |                           |                           |
|---------------------------|---------------------------|
| 1 Metacarpal bones,       | 2 Carpal bones,           |
| 3 Radius,                 | 4 Ulna,                   |
| 5 Humerus,                | 6 Scapular spine,         |
| 7 Scapula,                | 8 Mandible,               |
| 9 Facial bones (skull),   | 10 orbit,                 |
| 11 Cranial bones (skull), | 12 Temporal bone (skull), |
| 13 Cervical vertebrae,    | 14 Scapular cartilage,    |
| 15 Thoracic vertebrae,    | 16 Lumbar vertebrae,      |
| 17 Sacral vertebrae,      | 18 Os coxae (hip bone),   |
| 19 Caudal vertebrae,      | 20 Phalanges (proximal),  |
| 21 Metatarsal bones,      | 22 Tarsal bones,          |
| 23 Fibula,                | 24 Tibia,                 |
| 25 Femur,                 | 26 Ribs and sternum.      |

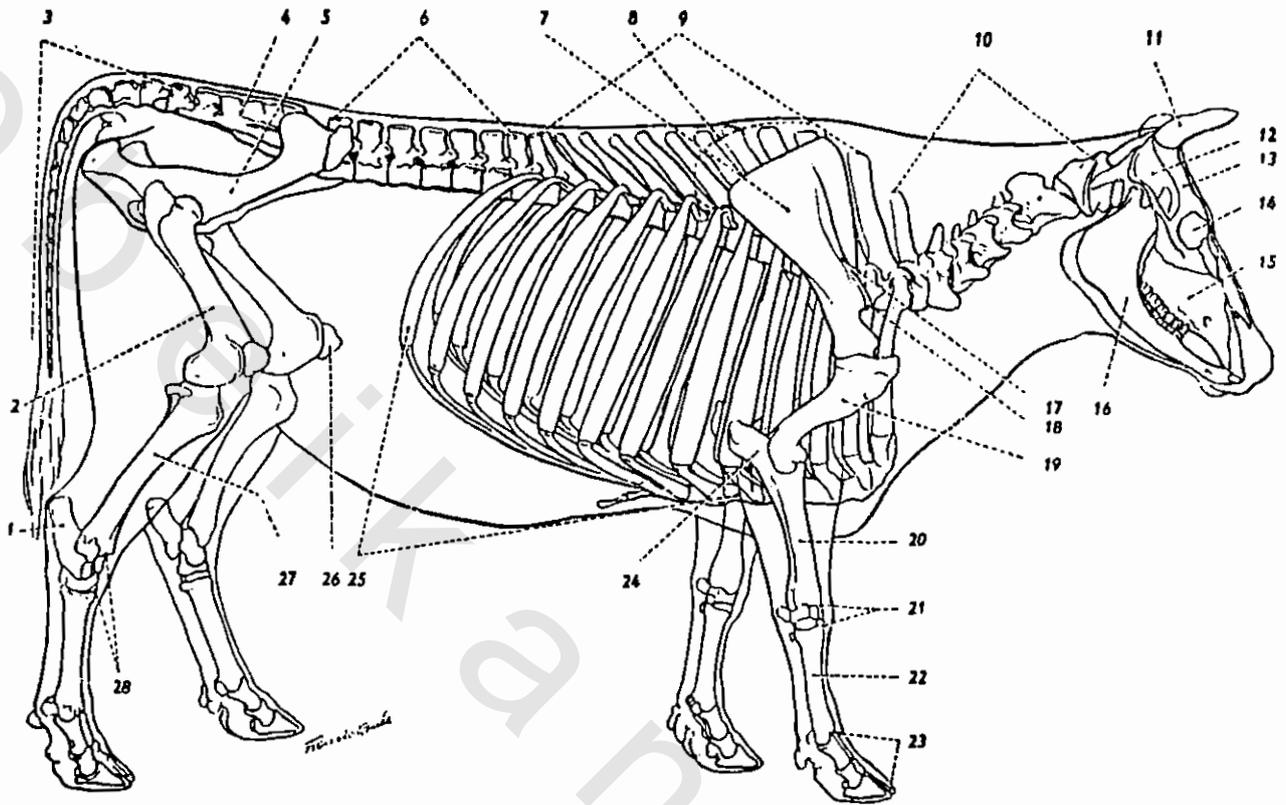


Fig. (97) Skeleton of the ox.

- |    |                        |    |                        |
|----|------------------------|----|------------------------|
| 1  | Fibular tarsal bone,   | 2  | Femur,                 |
| 3  | Caudal vertebrae,      | 4  | Sacral vertebrae,      |
| 5  | Os coxae (hip bone),   | 6  | Lumbar vertebrae,      |
| 7  | Scapula,               | 8  | Scapular cartilage,    |
| 9  | Thoracic vertebrae,    | 10 | Cervical vertebrae,    |
| 11 | Cornual process,       | 12 | Temporal bone (skull), |
| 13 | Cranial bones (skull), | 14 | Orbit,                 |
| 15 | Facial bones (skull),  | 16 | Mandible,              |
| 17 | Scapular spine,        | 18 | Acromion process,      |
| 19 | Humerus,               | 20 | Radius,                |
| 21 | Carpal bones,          | 22 | Metacarpal bones,      |
| 23 | Phalanges,             | 24 | Ulna,                  |
| 25 | Ribs and sternum,      | 26 | Patella,               |
| 27 | Tibia,                 | 28 | Tarsal joint (hock).   |

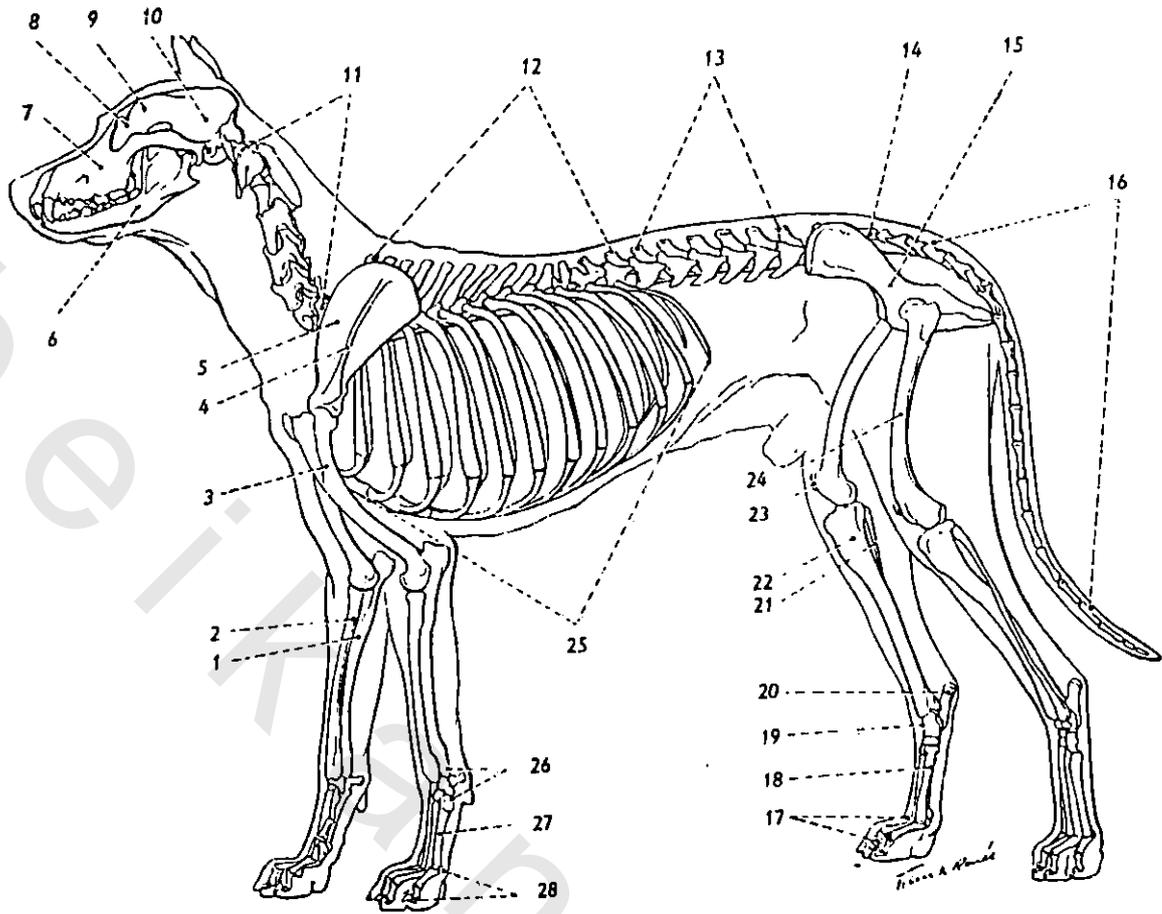


Fig. (98) Skeleton of the dog.

- 1 Ulna,
- 3 Humerus,
- 5 Scapula,
- 7 Facial bones (skull),
- 9 Cranial bones (skull),
- 11 Cervical vertebrae,
- 13 Lumbar vertebrae,
- 15 Os coxae (hip bone),
- 17 Phalanges,
- 19 Tarsal bones,
- 21 Fibula,
- 23 Patella,
- 25 Ribs and sternum,
- 27 Metacarpal bones,

- 2 Radius,
- 4 Scapular spine,
- 6 Mandible,
- 8 Orbit,
- 10 Temporal bone,
- 12 Thoracic vertebrae,
- 14 Sacral vertebrae (sacrum),
- 16 Caudal vertebrae,
- 18 Metatarsal bones,
- 20 Fibular tarsal bone,
- 22 Tibia,
- 24 Femur,
- 26 Knee joint,
- 28 Phalanges.

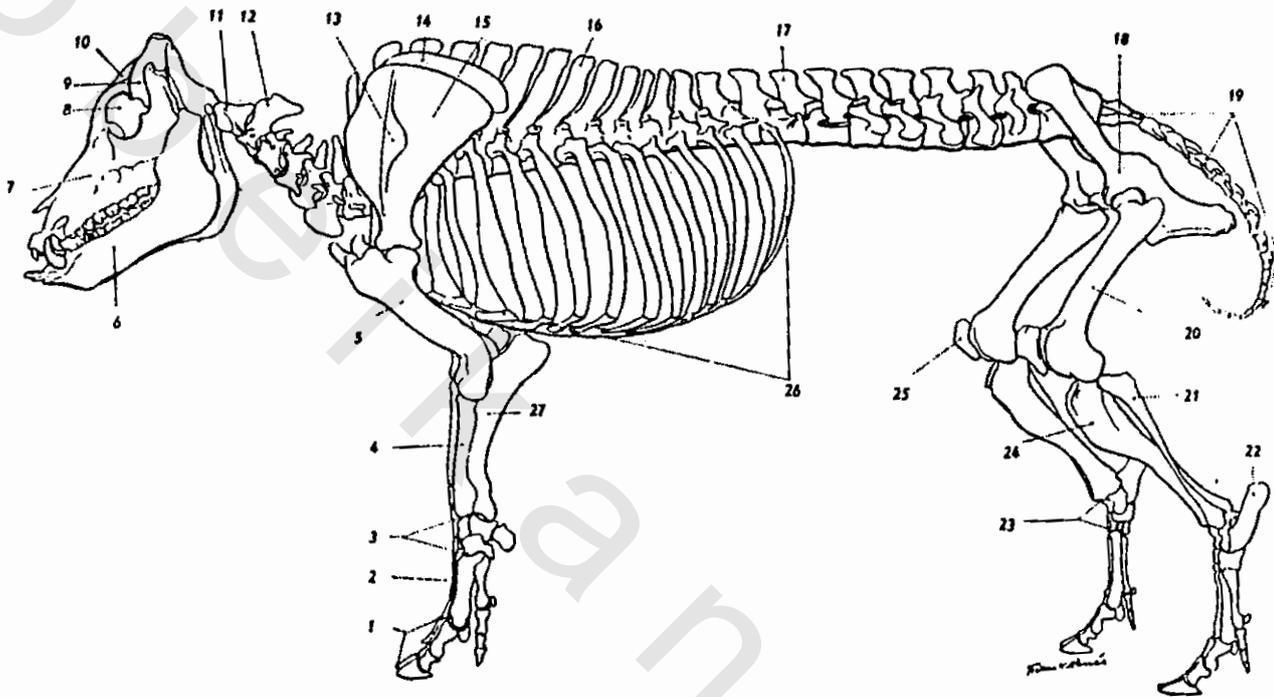


Fig. (99) Skeleton of the pig.

- |    |                                    |    |                                    |
|----|------------------------------------|----|------------------------------------|
| 1  | Phalanges,                         | 2  | Metacarpal bones,                  |
| 3  | Carpal joint,                      | 4  | Radius,                            |
| 5  | Humerus,                           | 6  | Mandible,                          |
| 7  | Facial bones (skull),              | 8  | orbit,                             |
| 9  | Temporal bone (skull),             | 10 | Cranial bones (skull),             |
| 11 | 1 <sup>st</sup> cervical vertebra, | 12 | 2 <sup>nd</sup> cervical vertebra, |
| 13 | Scapular spine,                    | 14 | Scapular cartilage,                |
| 15 | Scapula,                           | 16 | 8 <sup>th</sup> thoracic vertebra, |
| 17 | 1 <sup>st</sup> lumbar vertebra,   | 18 | Os coxae (hip bone),               |
| 19 | Caudal vertebrae,                  | 20 | Femur,                             |
| 21 | Fibula,                            | 22 | Fibular tarsal bone,               |
| 23 | Tarsal joint,                      | 24 | Tibia,                             |
| 25 | Patella,                           | 26 | Ribs and sternum,                  |
| 27 | Ulna.                              |    |                                    |

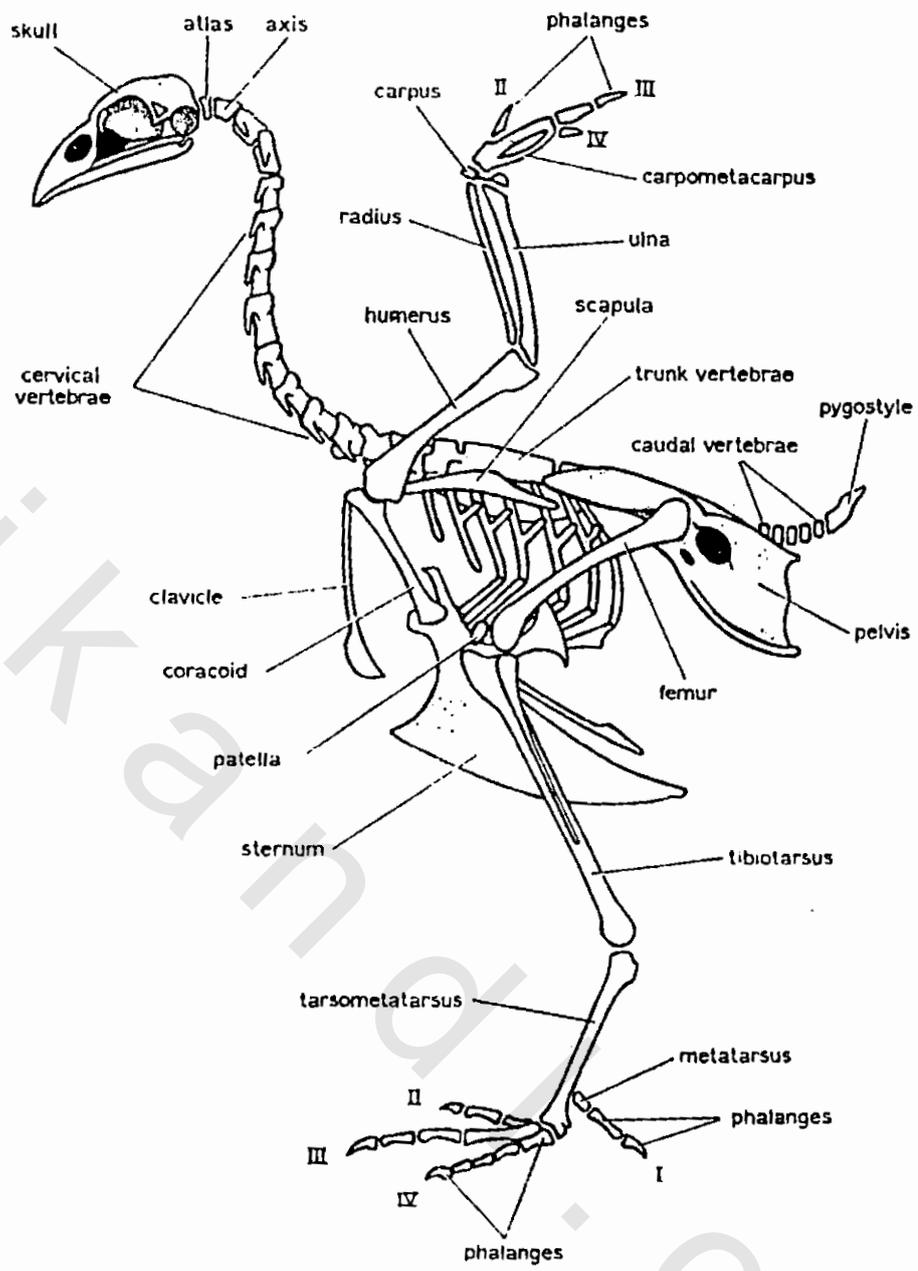


Fig. (100) Skeleton of the fowl.

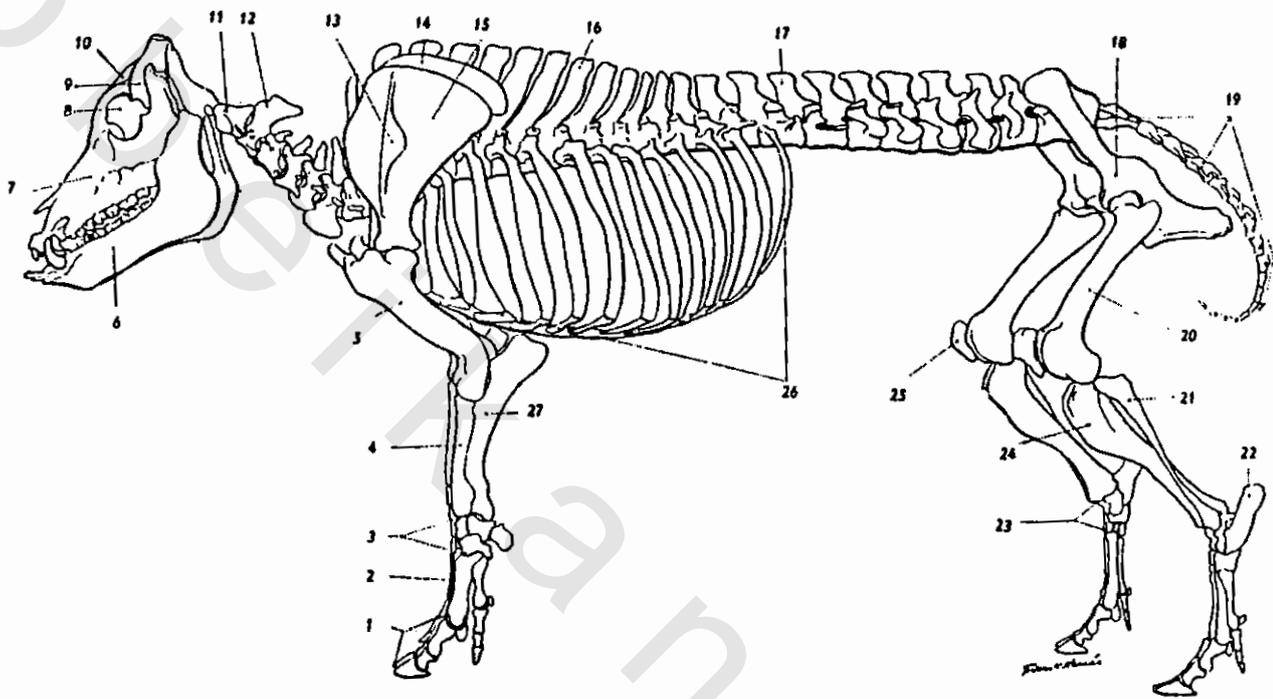


Fig. (99) Skeleton of the pig.

- |    |                                    |    |                                    |
|----|------------------------------------|----|------------------------------------|
| 1  | Phalanges,                         | 2  | Metacarpal bones,                  |
| 3  | Carpal joint,                      | 4  | Radius,                            |
| 5  | Humerus,                           | 6  | Mandible,                          |
| 7  | Facial bones (skull),              | 8  | orbit,                             |
| 9  | Temporal bone (skull),             | 10 | Cranial bones (skull),             |
| 11 | 1 <sup>st</sup> cervical vertebra, | 12 | 2 <sup>nd</sup> cervical vertebra, |
| 13 | Scapular spine,                    | 14 | Scapular cartilage,                |
| 15 | Scapula,                           | 16 | 8 <sup>th</sup> thoracic vertebra, |
| 17 | 1 <sup>st</sup> lumbar vertebra,   | 18 | Os coxae (hip bone),               |
| 19 | Caudal vertebrae,                  | 20 | Femur,                             |
| 21 | Fibula,                            | 22 | Fibular tarsal bone,               |
| 23 | Tarsal joint,                      | 24 | Tibia,                             |
| 25 | Patella,                           | 26 | Ribs and sternum,                  |
| 27 | Ulna.                              |    |                                    |

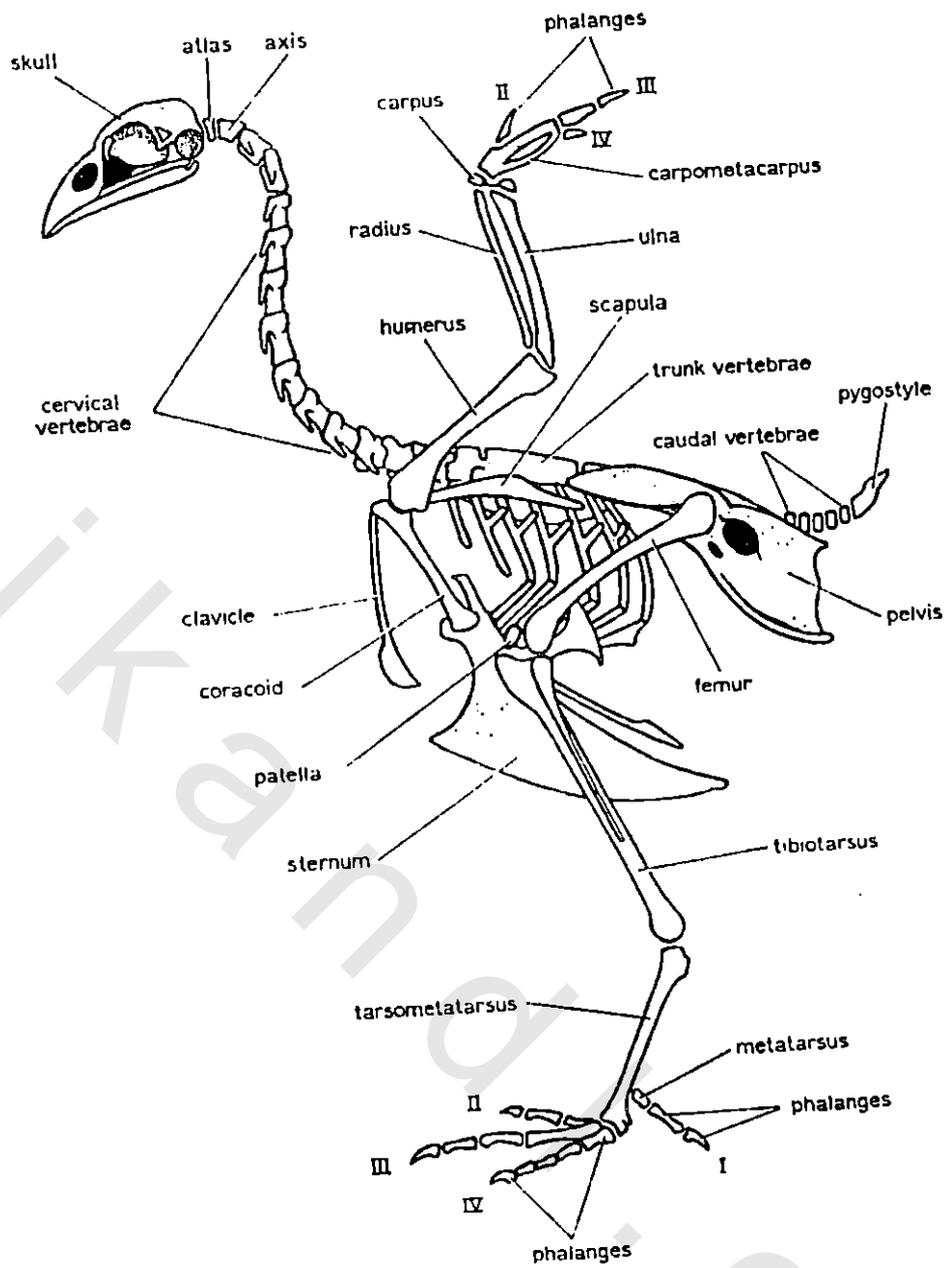


Fig. (100) Skeleton of the fowl.

## **BIBLIOGRAPHY**

**BONE, J.F. (1979):**

Animal anatomy and physiology.  
Reston publishing company, Inc.

**BRADLEY, O.C. (1946):**

The topographical anatomy of the limbs of the horse, 2<sup>nd</sup> ed.  
W. Green & Son.

**DOBBERSTEIN, J. and G. HOFFMANN (1961):**

Lehrbuch der Vergleichenden Anatomie der Haustiere, Band I.  
S. Hirzel Verlag Leipzig.

**NICKEL, R. ; A. SCHUMMER and E. SEIFERLE (1968):**

Lehrbuch der Anatomie der Haustiere, Band I Bewegungsapparat.  
Paul Parey in Berlin und Hamburg.

**POPESKO, P. (1979):**

Atlas der Topographischen Anatomie der Haustiere.  
Band I, II, III.  
Ferdinand Enke Verlag, Stuttgart.

**SISSON, S. and J.D. GROSSMAN (1963):**

The anatomy of the domestic animals.  
W.B. Saunders Company.

**TAYLOR, J.A. (1970):**

Regional and applied anatomy of the domestic animals.  
Part I, II, III.  
Oliver & Boyd, Edinburgh.

رقم الايداع	٨٦/٧٦٥٣
الترقيم الدولى	٩٧٧-٠٢-١٩٠١-٠

٣/٨٦/٦

طبع بمطابع دار روتا برينت