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THE .
DICTIONARY OF ENTOMOLOGY.

The Dictionary of Entomology.

BY

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INTRODUCTION.

In view of the necessity in Entomology of the acceptance of a universal code of terms to differentiate or describe the parts or characteristics of insects, and owing to the absence of such a work, I have, through the courtesy of the authorities of the British Museum (Natural History), availed myself of the use of their extensive library to compile this book.

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I shall be happy to be notified of any omissions in this, the first edition, in order to render future issues more complete.

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LIST OF ABBREVIATIONS.

- A.S.**.....Anglo-Saxon.
Arab.Arabic.
C......Celtic ; used us a general term
for Irish, Gaelic, Welsh, and
Cornish.
Dan.Danish.
Du.Dutch.
E.English.
F.French.
Gael.Gaelic.
Ger......German.
Gr.Greek.
Icel......Icelandic.
Idg......Indo-germanic.
Ital......Italian.
L.Latin.
M.E.Middle English ; English of the
thirteenth, fourteenth, and
fifteenth centuries.
Mod.Modern.
O.F.Old French.

- O.L.G.** Old Low German.
- O.S.** Old Spanish.
- Pers.** Persian.
- Scand.** Scandinavian ; used as a general
term for Icelandic, Swedish,
Danish and Norwegian.
- Skt.** Sanskrit.
- Span.** Spanish.
- Swed.** Swedish.
- Teut.** Teutonic ; English, Dutch,
German, Gothic and Scandi-
navian.

EXPLANATION OF THE SYMBOLS.

Following the method used by Professor Skeat in his Etymological Dictionary, the symbol † is employed to distinguish forms which are cognate and which are adduced to illustrate and confirm the etymology.

The symbol — signifies derived from. Example:- Furred, (F. — O.L.G.), M.E. “forre” meaning, French derived from old Low German; Middle English “forre.”

The abbreviation Ders. signifies derivatives of the primary word.

THE DICTIONARY OF ENTOMOLOGY.

A.—A prefix of Latin and Greek words, and as a prefix to Latin words, means, away from, as *avert*, to turn from ; and when prefixed to Greek words, it means, not, or without, as *atom*, what cannot be divided.

Abbreviate, Abbreviatus.—Disproportionately short in part ; when apparently unnaturally shortened. (L. *ad*, and *brevis*, short.)

Abbreviate fascia.—A fascia traversing *less than half* the wing. (See Dimidiate fascia.)

Abdomen.—The portion of an insect comprising all the segments beyond the podoon, or peduncle. (Newman.)

The posterior apodous region of the body, consisting of ten or fewer segments, which are usually freely articulated, although occasionally some of them are fused. (Boas.)

The third and last chief division of the body of insects (Burmeister). (L. *abdo*, to conceal.)

Abdominal ganglia.—Small oval nerve centres, situated one in each segment, between the alimentary canal and the large ventral muscles. (L. *abdo*, and *ganglion*.)

- Abductor coxa.**—The second of the powerful *coxæ* muscles. (L. *ab*, from, away from, and *duco*, *ductum*, to lead or draw.)
- Aborted.**—Incomplete, undeveloped. (L. *aborto*, old form of *abortio*, to miscarry.)
- Abconditum.**—(Head) see Concealed. (L. *abs*, away from, and *condo*, to hide.)
- Acarina.**—A family of Arachnoidæ, including mites, ticks, etc. (Gr. *A*, not, and *Keiro*, to cut).
- Acclivous.**—A gentle ascent of the surface; rising in a gradual slope. (L. *ad*, and *clivus*, a slope.)
- Accrescente.**—Gradually increasing in thickness towards the apex, and generally applied to the antennæ. (L. *ad*, and *cresco*, *cretum*, to grow.)
- Acetabula.**—The cotyloid cavities, the cavities of the thorax, in which the legs are inserted, formed by the sternum and epimerum, and sometimes the epigastrium. (L. *acetabulum*, a cup-shaped vessel.)
- Acetabuliform.**—Resembling a circular shallow saucer, the sides of which are more or less incurved. (L. *acetabulum*, and *form*, shape.) See Calathiform.
- Acetabulum.**—The mesostethium, or large central piece situated next to the peristethium, and behind the sockets of the intermediate legs. (L. *acetabulum*.)

Acetabulum.—The segment of the postpectus that is situated behind the peristæthium. It is bounded on each side by the Parapleuræ, and behind by the marianæ; it contains cavities for the reception of the intermediate legs. (L. a cup-shaped vessel.)

Achatine.—Painted with various concentric, curved, or parallel lines, resembling the veining of an agate. (Gr. *Achates*, a river in Sicily, where agates were found.)

Achromatin.—The water-like substance of the nucleus; the substance composing the remainder of the surrounding matter—after taking away the chromatin—of the nucleus. (Gr. *A*, and *chroma*, colour.)

Aciculæ.—Prickles, spines. (L. *acicula*, a little needle.)

Acicular.—Slender, needle-shaped. (L. *acicula*.)

Aciculate.—Covered with small scratches. (L. *acicula*.)

Acid.—(Scent) a pungent sour smell. (L. *acidus*, sour.)

Acidotheca.—The case of the ovipositor, that portion of the theca enclosing the ovipositor.

Acies.—The extreme termination of the margin. (L. the edge.)

Acinacicate.—Falchion-shaped; curved with the apex truncate and growing gradually wider towards the end. (Pers. *acinaces*, a sabre.)

Acini.—Granulations. (L. *acinus*, seed stone.)

Aciniform.—Cimeter-shaped, one thick and straight edge, the other thin and curved. (L. *acinus*, and *forma*, shape.)

Acone eyes.—Eyes which have not a crystalline cone in their structure. (Gr. *Α*, and *konos*, a cone.)

Acron.—The first segment of the Ant. (Wheeler.) (Gr. *acros*, at the top, the extremity.)

Acuductate, Acuducted.—Scratched across very finely as if with the point of a needle. (Constructed from L. *acus*, a needle.)

Aculeate.—Produced into a point; or as applied to Hymenoptera, furnished with a sting. (L. from *acuo*, to sharpen.)

Aculeate.—Furnished with prickles. Armed with sharp points.

Aculeate-serrate.—Armed with numerous short spines inclining towards one end, as do the teeth of a small hand-saw.

Aculei.—Small sharp points or spines. (L.)

Aculeus.—The instrument and appendages with which the female lays her eggs. (L. the sharp point, acuteness.)

Aculeus.—An appendage of the telum seen in bees—the sting. (L.)

Acuminate.—Ending in a prolonged point. (L. *acuo*, to sharpen.)

Acuminated.—Tapering to a point; pointed.
(From L. *acuminatus*, pa. par. of *acumino*, to sharpen.)

Ad.—A Latin prefix, signifying to.

Adermata.—(Pupa) When the prior skin is thrown off, and the wings, antennæ, etc., of the future imago appear through the case. (From Gr. *a*, and *derma*, skin.)

Adductor coxal.—One of the powerful coxæ muscles.
(L. *ad*, and *duco*, to lead; and *coxæ*.)

Adherent.—(Pupæ) See Pupæ adhaerenæ. (L. *ad*, and *haereo*, *haesum*, to stick.)

Adiaphanous.—Transparency of surface which does not transmit the light at all. (Gr. *a*, and *diaphanes*, transparent.)

Adminiculæ.—Elevated or indented stripes found upon many pupæ. Minute teeth on the dorsal surface of the abdomen of subterranean pupæ, by which they are able to reach the surface. (From L. *adminiculum*, a prop, an assistance.)

Adnate.—Growing to by its whole length, adhering or growing together. (L. *ad*, and *natus*, grown.)

Appressed.—Contiguous; pressed to. (L. *adpressus*, pa. par. of *adprimo*, to press to; *ad*, to and *premo*, to press.)

Aduncate.—Gradually bending from the direct line.
(L. *ad*, and *uncus*, a hook.)

Ædaegus.—The structure attached to, and slung by its middle from, the roof of the pygofer.
(From Gr. *aidoia*, the secret parts.)

Ædeagus.—The intromittent organ of the male with its appendages. (From Gr. *aidoia*.)

Æneus.—Bright brassy, or golden-green colour. (L. *aenus*, brazen.)

Æquata.—Equal. (L. *æqualis*, even, equal.)

Aeriducts.—Respiratory organs on the sides of the abdomen, tail, and trunk of aquatic larvæ and pupæ. (L. *aër*, air, and *ductum*, to lead.)

Æroscepsin.—A supposed unknown sense, of which the antennæ are, by some, believed to be the organs. (Gr. *aër*, air, and *skopeo* (*skepsis*, perception by the senses) to observe closely.) See Aeroscepsy.

Aeroscepsy.—The faculty of preception by the medium of the air ascribed to the antennæ of insects. (Gr. *aer*, and *skopeo*.)

Agamic.—Capable of reproducing without the agency of the male. (Gr. *a*, and *gamos*, marriage.)

Air-sacs.—An enlargement of the tracheæ into sacs or pouches, which are seen to lie superficially beneath the hypodermis in various parts of the body. (L. *aër*, and *saccus*, a bag.)

Aeruginous.—The colour of verdigris. (L. *ærugo*, rust of copper, verdigris.)

Agglutinate.—Fastened closely together, welded. (L. *ad*, and *gluten*, glue.)

Aheneus.—Bright brassy, or golden-green colour. (L. *aheneus*, brazen.)

Alæ.—The wings of insects. (L. *ala*, a wing.)

Alar.—Pertaining to the wings.

Alary muscles.—Muscles supporting the pericardial diaphragm. (L. *ala*, and *musculus*, a muscle.)

Alatate.—(Egg) Provided with lateral wings. (L. *alatus*, winged.)

Alatate (*ala'a*). (Tibia) Winged,—furnished with an attenuated dilated process, much resembling the extended membrane which constitutes the wing of a bat, but not so flexible. (L. *alatus*, winged.)

Alate, Alated, Alatus.—Winged; furnished with wings, or with projecting bodies resembling wings. (L. *ala*.)

Albidus.—A dirty, impure white. (L. *albus*, white.)

Albus.—Pure white. (L. *albus*.)

Alitrunk.—The term given to the fore-body of insects which have the prothorax reduced, and the three segments of the fore-body and first segment of the hind-body fused together. (L. *ala*, and *truncus*, trunk.)

Alliaceous.—(Scent.) A garlic-like smell. (L. *allium*, garlic.)

Allux.—“Toe Ball,” the third joint of the tarsi (remarkable in Rhyncophora). (L.)

Alula.—The alar appendage, a lobiform appendage at the base of each wing of Diptera; plural *alulæ*, “little wings.” (L. *ala*.)

Alulet.—[See Alula.]

Alutaceous.—Covered with minute cracks. (From L. *aluta*, leather.)

Alveolate.—Furnished with cells. (L. *alveus*, a hollow.)

Alveole.—A cell. (L. *alveus*.)

Am, Amb.—A Latin prefix signifying about ; around.

Ambient vein.—The term given to the costal nervure or vein when it completely encircles the wing. (L. *amb*, and *iens*, going ; and vein.)

Ambulant.—Moving from place to place. (L. *ambulo*, to walk.)

Ambulate.—To move backwards and forwards. (L. *ambulo*.)

Ambulatorial.—Used for walking. (L. *ambulo*.)

Ametabolous.—Differing neither in form, structure, nor habits from the adult. (Gr. *a*, and *metabole*, change.)

Amethystine.—Resembling the purple splendour of the amethyst. (Fr. *amethystin*, resembling amethyst in colour).

Amnion.—The inner membrane continuous with the ectoderm of the primitive streak, which protects the developing embryo. (Gr. *amnion*.)

Amorpha.—Insects in which the pupa (provided with neither mouth nor organs of locomotion) bears no resemblance to the imago. (Gr. *a*, and *morphe*, shape.)

Amphi.—A prefix in words of Greek origin, signifying both, about, around.

Amphipneustic.—A term given to one of the intermediate types between the Holopneustic and Apneustic tracheal systems:—When a pair of spiracles, situated at each end of the body, are open, and the intermediate spiracles closed. (Most dipterous larvæ.) (Gr. *amphi*, and from *pneuma*, air.)

Amplixicate.—(L. *amplus*, large.) See Dilatate.

Ampullaceous sensillæ.—More or less upright conical sense hairs, greatly resembling the cœloconic type; but the hair is more upright and smaller, while the pit which encloses the base is circular, much deeper, and opens on the surface by a small pore. (Berlese.) (L. *ampulla*, a vessel; and from *sensus*, the sense.)

Ampulliform.—Bottle-shaped; swollen; resembling an inflated bladder. (L. *ampulla*, and *form*.)

An.—A form of the Greek prefix *a*; an abbreviation of the Greek prefix *ana*.

Ana.—As a Greek prefix, means up, up or all through, back, again, according to.

Anal.—Pertaining to the anus. (L. *anus*, the fundament.)

Anal area.—(Wing) That portion of the wing lying between the anal nervure and the posterior margin. (L. *anus*, and *area*.)

- Anal angle.**—(Wing) The angle between the dorsum and the tergum (see Tornus). (L. *anus*, and *ang lus*, an angle.)
- Anal cleft.**—A deep incision seen in the females of Lecaniinæ extending from the anal orifice. (L. *anus*, and Scand. *clift*, a cleft.)
- Anal glands.**—Two bilobed sacs extending from the base of the last, to the middle of the second abdominal segment. (L. *anus*, and *glans*.)
- Anal nervure.**—Nerve of the wing, separating the cubitus from the anal area. (L. *anus*, and L. *nerve*, a cord.)
- Anal Operculum.**—(L. *anus*, and *operculum*, a lid or cover.) See Suranal plates.
- Anal papillæ.**—Four soft, white protuberances, situated on the posterior end of the body (ninth abdom. seg.), surrounding the anus dorso-laterally and ventro-laterally of the Anopheles larvæ. (L. *anus*, or *papillæ*, small tubercles.)
- Anastomosing.**—Running into one another like veins. (Gr. *ana*, and *stoma*, mouth.)
- Anastomosis.**—The stigma; a spot in the upper wing, at the branching of the nervures, near the costal edge. The term is generally used to indicate the connection of nervures of the wing. (Gr. *ana*, and *stoma*.)
- Anastomosis.**—Inosculation, or the opening of one vessel into another, as of one artery or vein into another. (Gr. *ana*, and *stoma*.)
- Anceps.**—Two-edged. (L.)

- Anchor process.**—The curious, fleshy process situated close to the anterior extremity of the larvæ of some of the Diptera. (*Cecidomyidæ*.) (A.S. *ancor*,—L, *ancora*, a bend; and process.)
- Ancipital.**—Possessing two opposite edges or angles. (L. *am*, on both sides, and *caput*, the head.)
- Androconia.**—Small scent-scales found on the upper side of the fore wings, occurring in limited areas, such as the discal spots, or on the folds of the wings.
- Angle**—Is that portion where the margins, or two parts meet. (L. *angulus*, an angle.)
- Angular.**—When the angular margins do not exclusively elbow outwards, but also inwards. (L. *angulus*.)
- Angular.**—(Pupa). (L. *angulus*.) See Pupæ Angulares.
- Angulate.**—Angular, having angles. (L. *angulus*.)
- Anguloso-Undulate.**—When fasciæ, strigæ, lines, etc., go in a zig-zag direction, or with alternate acute sinuses. (L. *angulus*, and *unda*, a wave.)
- Angustate.**—Beginning with a narrow base, then dilating and thickening. Disproportionately narrow in part. (L. *angustus*, narrow.)
- Angustate** (*angusia'æ*). (Antennæ) Contrary to Nodose; having the intermediate and terminal joints thinner than the remainder. (L. *angustus*.)
- Aniso.**—Unequal; a prefix to terms in natural history. (Gr. *a*, and *isos*, equal.)

- Anisomorpha.**—In which the metamorphosis is various. (Gr. *a*, *isos*, and *morphe*, shape.)
- Annulata.**—A province of animals in which the body is transversely divided into rings. (L. *annulus*, a ring.)
- Annular lamina.**—The sternal plates of the ninth segment in the Ants which lie in front of the genital appendages. (L. *annulus*, a ring, and *lamina*, a plate.)
- Annulate.**—Ringed; surrounded by a narrow ring of different colour. (L. *annulus*.)
- Annulet.**—A narrow differently coloured circle. (L. *annulus*.)
- Ant.**—A prefix (see *Anti*).
- Ante.**—Latin prefix signifying before.
- Antefurca.**—An internal process of the antepectus for the attachment of muscles. (L. *ante*, and *furca*, a fork.)
- Antennæ.**—The “Feelers”; two movable and jointed sensiferous organs, situated upon the head, generally between or before the eyes. (L. *antenna*, a sail-yard.)
- Antennary.**—Pertaining to the antennæ. (L. *antenna*.)
- Antennary nerves.**—[See *Nervi antennarum*.]
- Antepectus.**—The underside of the prothorax. (L. *ante*, and *pectus*, the breast.)
- Antepenultimate.**—The last but two. (L. *ante*, and *pene*, almost, *ultimus*, last.)

- Anterior.**—Before in place ; previous. (L. *ante*, before.)
- Anterior angle.**—(Thorax.)—The lateral angle near the head on each side. (L. *ante*, and *angulus*, a corner.)
- Anterior margin.**—(Wing.)—The costal margin ; the margin on the anterior side of the wings, extending from the base to the apex.
- Anterior palpi.**—The labial palpi.
- Anterior wings.**—The superior or upper wings.
- Anthracinus.**—Coal black, a deep shiny black, with a bluish tinge. (Gr. *anthrax*, coal.)
- Anti-**—Greek prefix signifying opposite, against, or in place of.
- Anticlypeus.**—The anterior part of the clypeus to which the labrum is attached. (Sharp.) (L. *ante*, and *clypeus*, a shield.)
- Antlia.**—The oral instrument of Lepidoptera, in which the ordinary trophi are replaced by a spiral, bipartite, tubular machine for suction, with its appendages. It includes the solenaria, and fistula. (Gr. *anti*, and *lego*, to speak.)
- Antrosum.**—(Direction) Forward, in contradistinction to Rursus—backward. (Gr. *anti*, not, and L. *rursus*, backward.)
- Anus.**—The vent ; the terminal portion and external opening of the rectum, situated in the end of the body in the tenth or eleventh segment ; it is bounded on the sides by the paranal lobes, and beneath by the infra-anal lobes. (L. the fundament.)

Aorta.—The blood tube; a slender tube opening from the foremost chamber of the “heart,” and passing forwards to the head, ending in the neighbourhood of the brain in a trumpet-shaped opening. A special contractile sac is situated at the base of each antennæ, into which it propels blood received from the head cavity. (L.—Gr. Late L. *aorta*—Greek, meaning the great artery “rising” from the heart.)

Apex.—(Wing) The angle between the costa and the outer edge. (L. *apex*.)

Apex.—The tip, point or summit. (L.)

Apex abdominis.—(L. *apex*, and abdomen.) See Cremaster.

Aphidivorous.—Devouring aphids. (L. *aphis*, a plant louse, and *voro*, to devour.)

Apices.—Plural of apex.

Apiculate.—Covered with fleshy, erect, short points. (From L. *apex*.)

Apneustic.—The term given to the closed or secondary and adaptive type of tracheal system. This type is distinguished by the want of stigmata, or, if present, they are closed and do not function. (Gr. *a*, and from *pneuma*, air.)

Apo.—A Greek prefix signifying away from.

Apod, Apodal.—Without legs. (Gr. *a*, and *pous*, *podos*, the foot.)

Apodema.—A broad transverse band crossing the thorax in front of the scutellum seen in male coccids. (Gr. *apo*, from, and *demas*, the body.)

Apodemes.—Hollow conical sclerite, showing a pit outwardly and a tubular process pointing inwardly towards the body cavity in front of the metasternum, and serve for the attachment of muscles. (Gr. *apo*, from, and *demas*, the body.)

Apodous.—Footless. (Gr. *a*, and *pous*, *podos*, the foot.)

Apophysis.—An extra projecting piece or the prolongation of an existing organ (*e.g.*, the coxal apophyses in *Dytiscus*.) (Gr. *apo*, and *physis*, growth.)

Apophysis.—The coxæ, the two small basal joints of the legs. (Gr. *apo*, and *physis*.)

Appendicle.—A movable organ, often biarticulate, which, terminating the surface anteriorly, covers the mouth from beneath, and is situated between the maxillæ. (L. *appendicula*, a small appendage.)

Appendicula.—[See Appendicle.]

Appendiculate.—Furnished with appendices, or additions of lines, furrows, or organs of the body. (L. *ad*, and *pendo*, to hang.)

Appendiculated.—Furnished with an appendicle; possessing appendices. (L. *appendicula*.)

Apposed.—With their surfaces lying one against the other. (L. *ad*, and from *pono*, *positum*, to place.)

Approaching.—Converging. (L. *ad*, and *prope*, near.)

Approximate (*ant. approximatae*). (Antennæ) When the basal joints are placed very closely together. (L. *ad*, and superlative of *prope*, near.)

Aptera.—An order of insects which undergo practically no metamorphosis, and are destitute of wings; the mouth is mandibulate or slightly haustellate. (Gr. *a*, and *p'eron*, a wing.)

Apterous.—Wingless. (Gr. *a*, and *pteron*.)

Arachnoidæ.—A class of the Articulata, including spiders, mites, and scorpions. (Gr. *arachne*, a spider, and *eidōs*, form.)

Arachnoideous.—Cobweb-like; resembling cobweb. (Gr. *arachne*, a spider, and from *eidōs*, form.)

Araneidæ.—The spider family. [See **Arachnoidæ**.]

Arched nerves.—Two nerves arising from the two upper basal portions of the *curva cerebri*, connecting the central, and vagus nervous systems. (L. *arcus*, a bow, and nerves.)

Arcuate.—Bow-like; linear, and bent like a bow. (L. *arcus*.)

Arcuatus.—Arched; a margin in the form of a bow. (L. *arcus*.)

Areolate.—Furnished with small areas, like a network. (L. *area*, a vacant space.)

Areolet.—A cell, or enclosed space formed by the nervures of a wing. (L. *area*.)

Argenteus.—White metallic colour, silver-like. (L. *argenteus*.)

Arista.—A slender style or bristle, chiefly confined to the antennæ of Diptera. (L. *arista*, an awn.)

- Aristate.**—Furnished with hair. (L. *arista*.)
- Armature.**—The horny parts of the genitalia. (L. *armatura*, armour.)
- Arolia.**—The term used to the pulvilli according to the order of the insect.
- Aromatic.**—(Scent) A pungent smell of spices. (Gr. *aromatikos*, from *aroma*, spice.)
- Arquate, Arquated.**—Bowed ; arcuate.—(L. *arquatus*, arched, bowed, curved.)
- Arthricum.**—The fourth joint of the tarsi. (Gr. *arthron*, a joint.)
- Arthroderm.**—The outer crust, or body wall of Articulates. (Packard.) (Gr. *arthron*, and *derma*, the skin.)
- Arthromere.**—The term denoting the elemental part of a jointed or articulate animal, the typical ring or segment. (Gr. *arthron*, a joint, and *meros*, a part.)
- Arthropleura.**—The pleural or limb-bearing region of the body ; that portion of the Arthromere situated between the tergite and sternite. (Packard.) (From Gr. *arthron*, and *pleura*, a side.)
- Articulata.**—(lacinia) The term used when the blade of the maxillæ is united by a distinct and free joint, instead of a fixed sutural line. (L. *articulus*, a joint.)
- Articulate.**—Jointed. (L. *articulus*.)
- Articulate fascia.**—A fascia consisting of contiguous spots. (L. *articulus* and *fascia*, a band.)

- Artus.**—The instruments of motion. (L. a limb.)
- Asperate.**—Roughened, of sculpture. (L. *asper*, rough.)
- Asper.**—Rough or uneven. (L.)
- Assurgent.**—Declining at the base and rising in a curve to an erect position (Say). (L. *ad*, and *surgo*, to rise.)
- Asymmetrical.**—With one side of the body different to the other. (Gr. *a*, *syn*, and *metron*, a measure.)
- Atavic variations.**—Variations which recall a past stage in the history of the race. (L. *atavus*, an ancestor, and *vario*, various.)
- Ater.**—The colour of liquid ink, ink-like—sometimes termed *Aterrimus*. (L. black.)
- Aterrimus.**—[See *Ater*.]
- Aterrimus.**—Ink-like in colour. (L. *ater*.)
- Atomi.**—Atoms of colouring, large, and easily distinguished. (L. *atomos*, an atom.)
- Atmosphere.**—The term given to the *exterior* circle of the *eye of colour* (ocellus.) (Coined from Gr. *atmo*, stem of *atmos*, air, and *sphaira*, a globe.)
- Atroceruleus.**—Dark, deep blue, inclining to black. (L. *ater*, black, *caeruleus*, blue.)
- Atrophied.**—Imperfectly developed. (Gr. *a*, and *trophe*, nourishment.)
- Atropurpureus.**—Dark purple-to-black. (L. *ater*, black, and *purpura*, purple.)
- Atrous.**—The purest and most intense black. (From L. *ater*.)

- Atrovirens.**—Dark green to black. (L. *ater*, dark, and *virens*, green.)
- Attenuatus.**—Provided with antennæ. (L. *antenna*.)
- Attenuante.**—(Antennæ) Gradually tapering to the apex. (L. *ad*, and *tenuis*, thin.)
- Attenuate, Attenuated.**—Gradually diminished, tapering. Disproportionately slender in part. (L. *ad*, and *tenuo*, to make pointed.)
- Aurantiacus.**—Orange in colour; a mixture of red and yellow. (From L. *aureus*.)
- Aurantius.**—The colour of an orange. (L. *aureus*, golden.)
- Aurelia.**—Ancient term for pupa, or chrysalis. (L. *aurelia*, pupa of a golden colour.)
- Aureus.**—Golden, orange-like in colour. (L. golden.)
- Aurichalceous.**—The metallic yellow of brass. (From L. *aurichalcum*, yellow copper ore.)
- Auricle.**—An appendage resembling an ear. (L. *auricula*, an ear.)
- Auriculo-ventricular openings.**—The openings seen in the constricted parts of the dorsal vessel. (incompos. from L. *auricula*.)
- Auritate.**—(Egg) Ear-like appendages placed at one end; ear-like. (L. *auricula*.)
- Auritus.**—Furnished with ears (two little appendages). (L. *auritus*.)
- Auxillary optic nerves.**—(L. *auxilium*, help, from *augeo*, to increase.) See *Nervi optici secundarii*.

Axes.—The horny pieces connecting the wings to the body. (L. *axis*.)

Axis.—A small prominent process at the base of the elytra, upon which it turns. (L. *axis*, an axis, axle-tree, + Gr.)

Axillary.—Springing from the point of union of two parts. (L. *axis*.)

Axillary incision.—[See *Incisura axillaris*.]

Azureus.—Clear brilliant blue. (F.—Arab.—Pers. *azure*, blue.) M.E. *asur*, *azure*.—O.F. *azur*, *azure*.

Badius.—Bay-coloured; like a bay horse in colour. (L. *badius*.)

Balancers.—The poisers or halteres (Owen). (M.E.)

Bald.—A portion of the surface devoid of hair when the rest is hairy. (C.) M.E. *balled*; the orig. sense was “shining, white”; E. *ball*, a white-faced horse—Gael, and Irish, *bal*, *ball*, a white spot or streak.

Barbate.—When an opening (as the mouth) is surrounded by long hairs. (L. *barba*, a beard.)

Barbate.—(Antennæ) Bearded, covered with short and thick-set hair completely upon one side. (L. *barba*.)

Base.—(Wing.) The narrow attachment of the wing to the thoracic segment. (F.—L.—Gr.) M.E. *bas*.—F. *base*.—L. *basis*.—Gr. *base*, a pedestal, base, step.

Base.—That portion whereby it is affixed to the body ; the root or bottom upon which an organ stands.

Basiconic sensillæ.—Upright conical club-like sense-hairs which are immovable at the base, while the chitinous investment is very thin. (Berlese.) (L. *basis*, *conicus*, and from *sensus*, the sense.)

Basilaire.—Straus' term for the Jugulum. (L. *basilaris*, from *basis*.)

Basilar membrane.—A thin fenestrate membrane separating the cones and rods from the optic tract. (From Base, and L. *membrana*.)

Basis.—The base, the whole lower part of the theca, from the mouth to as far as the labella. (L.)

“ **Battledore Scales.** ”—A term given to one of the numerous varieties of spinules. (M.E. *batyl-doure*, Provincial *batedor*. [The corruption to *battledore* was due to confusion with *battle*, vb. to fight] and M.E. *scale*.)

Belly.—(A.S. *balg*, *balig*, a bulge, a belly.) See Venter.

Bi-—Latin prefix, signifying two, or twofold.

Biarticulate.—Having two joints. (L. *bi*, and *artus*, a joint.)

Bicarinate.—Having two longitudinal elevated lines. (L. *bi*, and *carina*, a keel.)

Bicaudate.—Possessing two tails or processes. The term is generally applied to the wings of Lepidoptera when so formed. (L. *bi*, and *cauda*, a tail.)

Bicornute.—Two horned. (L. *bi*, and *cornu*, a horn.)

Bicuspidate.—Ending in two points. (L. *bi*, and *cuspis*, a point.)

Bifarious.—Pointing in two ways, in opposite directions. (L.)

Bifasciate.—Furnished with two coloured bands. (L. *bi*, and *fascia*, a band.)

Bifida.—(Lingula). Having a deep notch down the centre. (L. *bifidus*, cleft into two parts.)

Biflabellate.—(Antennæ). Doubly flabellate, *i.e.* when both sides of the joints of the antennæ send forth flabellate processes. (L. *bi*, and *fabellum*, a fan.)

Bifurcate.—(Antennæ). Composed of two joints, of which the apical one is bent double and attached by its centre to the second joint. (L. *bi*, and *furca*, a fork.)

Bifurcate, Bifurcated, Bifurcous.—Two jointed; forked, into two joints. (L. *bi*, and *furca*.)

Bijugum.—In two pairs. L. *bi*, and *jugum*, a yoke.)

Bilamellar.—Divided into two laminae. (L. *bi*, and *lamina*, a plate.)

Bilineate.—Marked with two lines. (L. *bi*, and *linea*, a line.)

Bilobed.—With two lobes; two-lobed. (L. *bi*, and Gr. *lobos*, a lobe of the ear.)

- Binate.**—Consisting of a single pair. (From L. *binus*, twofold; L. *bi*, double.)
- Bipartite.**—Divided into two parts to the base, as a leaf (see Partite). (L. *bi*, and *partite*, with proper division.)
- Bipectinate** (*duplicato-pectinatæ*).—Doubly pectinate (L. *bi*, and *pecten*, a comb.)
- Bipupillate.**—When the *ocellus* has two pupils or spots of colour; possessing two pupils of different colour. (L. *bi*, and *pupilla*, a pupil.)
- Biradiate.**—Consisting of two rays. (L. *bi*, and *radius*, a ray.)
- Biserrate.**—Doubly serrate. (L. *bi*, and *serra*, a saw.)
- Bisetous.**—Furnished with two setaceous appendages. (L. *bi*, and *seta*, a bristle.)
- Bivalve.**—(Proboscis.) Consisting of two valves or divisions united, so forming a tube. (L. *bi*, and *valva*, a valve.)
- Blade.**—(Lacinia). The extreme portion of the maxillæ. (A.S. *blade*, a leaf.)
- Blastoderm.**—The germ-skin; the germinal membrane which lies immediately beneath the *membrana vitelli* of the ovum. (Gr. *blastos*, a germ, and *derma*, skin.)
- Blastodermic cells.**—The cells forming the blastoderm. (L. *blastos*, *derma*; and *cella*, from *celo*, to hide.)

- Blastula.**—The stage of development of the egg; a hollow bag with a cellular envelope formed by the nuclei moving towards the margin of the egg, where they arrange themselves in a layer surrounding the yoke, their masses of protoplasm become marked off into distinct cells and a cell-layer, and the blastoderm is thus formed internal to the yoke membrane. (Gr. *blastos*, a germ.)
- Blind ocellus.**—An eye of colour without any pupil. (A.S. *blind*. + Du. *blind*, to become dim, and *ocellus*.)
- Blood-gills.**—Delicate anal tubular processes into which the blood flows, and which do not as a rule contain tracheæ, though occasionally very fine tracheal branches are to be seen in trichopteros larvæ. (Muller.) (A.S. *blod*, + Du. *bloed*; and M.E. *gille*.)
- Boreal.**—Of, or belonging to the north. (Step.) (From Gr. and L. *boreas*, the north wind.)
- Botryoidal.**—Clustered like a bunch of grapes. (Gr. *botrys*, a bunch of grapes, and *eidōs*, like.)
- Bound.**—(Pupæ). (F. *borne*, to restrain, limit.) See Pupæ contignæ.
- Bouton.**—The ladle-like organ situated at the apex of the lingua in the higher Apidæ. (F. bouton.)
- Brachelytrous.**—Possessing short elytra. (Gr. *brachys*, short, and *elytron*, a wing case.)
- Brachial nervures.**—The nerves of the anterior or front wing, which originate at the thorax and run parallel with the interior edge, towards the

posterior angle (or edge). (F. *brachial*—L. *brachialis*, of, or belonging to the arm ; *brachium*, the arm.)

Brain.—The supraœsophageal ganglion. (A.S. See *brægen*.) Encephalum.

Breast.—The part of the thorax analogous to the breast of vertebrates. (M.E. *bræst*, *bræst*. A.S. *bræost*. + Icel. *brjóst*.) See Pectus.

Brevate. *Breves*.—(Antennæ). The term is used when the antennæ are about the length of the head. (L. *brevis*, short.)

Breviorate. *Breviores*.—(Antennæ). The term is used when the antennæ are longer than the head, and shorter than the body. (L. *brevior*, short.)

Brevissimate. *Brevissimæ*.—(Antennæ). The term is used when the antennæ are shorter than the head. (L. *brevissimus*, short.)

Broken.—(A.S. *brucan* ?). See Fractæ.

Bronze.—The colour of old brass. (F. *bronze*.—Ital. *bronzo* ; *bronzino*, made of brass ($z=ds$).—L. *æs Brundusinum*.—L. *Brundusium*, *Brindisi* (in Italy) where bronze mirrors were made.)

Bronzus.—Bronze-coloured. (F.—Ital.—L. see Bronze.)

Brosse.—Brush ; the brush often found upon the mola, formed of short, stiff hairs. (Fr. *brosse*, a brush.)

Brunneus.—Brown ; chestnut-coloured. Evidently a bastard compound. (Low L. brown.)

Brush.—[See Brosse.]

- Brushes.**—The bunches of stout hairs situated one on each side of the anterior end of the head of the Culicidæ larvæ. (From *F. brosse*, a brush.)
- Brushes.**—The tufts of more or less dense hair, seen in the larvæ of Culicidæ, situated either round the fin-like processes of the abdominal segments, or round the respiratory siphon. (*F. brosse*.)
- Buccal.**—Pertaining to the mouth. (*L. bucca*, the cheek.)
- Buccal cavity.**—The cavity of the mouth.
- Buccate.**—A head furnished with swollen cheeks. *Caput buccatum*. (*L. bucca*.)
- Budding.**—The term often used to the peculiar agamic reproduction of Aphids. (*M.E. Budden*, to bud.)
- Bulbus.**—The bulb; the base of the scape, by which it inosculates in the torulus, often subglobose, and looking like a distinct joint. (*L.*)
- Bullate.**—Blistered. (*L. bulla*, a bubble.)
- Bursa copulatrix.**—An evagination of the vagina, into which the penis of the male is inserted in copulation. (In the Lepidoptera the bursa copulatrix is peculiar, in that it is not a simple evagination of the vagina, but a tube, open at both ends, one end leading into the vagina, the other into the surface of the body; so that here the female genital organs have two pores, that into the bursa serving for copulation, whilst the vaginal opening proper allows only of the escape of the eggs.) (*L. bursa*, a purse, and from *copulare*, to join.)

- Caduceus.**—Shedding; easily cast off. (L. *cado*, to fall.)
- Cæca.**—Small purses or minor stomachs thrown off from the principal one. (L. *cæcus*, blind.)
See Cœca.
- Cæcal tubes.**—Eight short blind tubes opening from the front end of the stomach, and being of similar structure to the stomach. (L. *cæcus*, blind.)
- Cæruleus.**—Pale blue, the colour of the sky. (L. azure blue.)
- Cæsius.**—Greenish, grey, sordid blue colour. (L. *cæsius*, grey.)
- Cæsius.**—Greyish-blue. (L.)
- Calathiform.**—Bowl or basket-shaped. (Gr. *kalathos*, a basket.)
- Calcar.**—A spur, spine, process; plur. *calcaria*. (L.)
- Calcarate, Calcarated.**—Armed with spurs; possessing a spur or spurs. (L. *calcar*, a spur.)
- Calcaria.**—The stiff spines with which the tibia are furnished. (L. *calcar*.)
- Calceoliform.**—Oblong in form with the middle somewhat coarctate. (L. *calceolus*, a slipper and *forma*.)
- Callose.**—Furnished with callii. (L. *callum*, the hardened skin.)
- Callosity.**—A hard thickening of the portion. (L. *callosus*, thick and hard.)

Callus.—A projection or elevation; plur. *calii*.
(L. *callus*.)

Callus metanoti lateralis.—The lateral callosity of the metanotum of Diptera. (L.)

Calx.—The heel; the curving part of the planta, by which it articulates with the tibia. (L.)

Calyces.—Brain cups; two elongate trough-shaped, cellular masses resting on the peduncles.
(Gr. *kalyx*, a cup.)

Calyculate.—Double-cupped, one cup placed within another. (From Gr. *kalyx*.)

Calyx.—The top or head of the mushroom body, which is supported by the cauliculus and the peduncle or pedicel. (Gr. *kalyx*.) See Mushroom bodies.

Campanulate.—(Antennæ). Having bell-shaped joints, being concave at the broadest end.
(Ital. *campana*, a bell.)

Campodiform larva.—Is elongate, with a broad quadrate head; three thoracic segments each bearing a pair of legs, and ten visible abdominal segments. The skin of the thoracic segments is almost chitinised. Each abdominal segment has a single strong chitinous tergal plate, and (as regards the first seven segments) seven ternal plates; the eighth segment has but three ventral plates, and the ninth only one, while the tenth is a truncated “anal cylinder.” The head bears appendages corresponding with those of the perfect insect; each antenna has but four joints,

the third carrying alongside the fourth a small papilla, which shows traces of segmentation and suggests the "feeler" was primitively branched. No compound eyes are present, only six simple ocelli at the base of each antenna. At the anal segment is a pair of long cercopods, covered with nodules and stiff hairs. It is the typical grub of numerous Beetles, Stoneflies, Mayflies, Dragon-flies, Lacewing-flies, etc. (Gr. *campe*, a caterpillar, and *pous*, a foot, and *form*.)

Canaliculate.—Furnished with one or more channelled furrows; elevated longitudinally with a concave line in the middle. (L. *canalis*, a channel.)

Cancellated.—Crossed by lines running at right angles to each other. (L. *cancelli*, lattice-work.)

Canine teeth.—(L. *canis*, a dog, and A.S. *toth*, a tooth.) See *Dentes laniarum*.

Canthus.—A corneous process, seen in some of the Coleoptera, originating at the clypeus, either completely or partially dividing the eyes. (Gr. the corner of the eye.)

Canus.—The colour of grey hair. (L. hoary, grey.)

Capillary.—Slender and hair-like. (L. *capillus*, hair, from *caput*.)

Capilli.—Head hair; hair situated on the coruna of the head. (L. *capillus*, hair, from *caput*.)

Capitatae.—(Antennæ). When the capitulum is abrupt and strongly marked. (L. *capit.*)

Capitate.—Pertaining to the caput. (L. *caput*.)

- Capitate** (*capitatae*).—(Antennæ). Having the terminal joint forming a club, or knob. (L. *caput*, head.)
- Capitate hairs**.—Hairs knobbed at the apex. (L. *caput*; and A.S. *hær*, *hêr*, † Du. *haar*.)
- Capitis cerebroida**.—The first cerebroida. (L. *caput*, head, top, and *cerebrum*, brain.)
- Capitulum**.—(Antennæ). The knob; the last joints of the clavola when suddenly larger than the rest. (L. *caput*.)
- Capitulum compositum**.—(Antennæ.) (L. *caput*, and *compositus*, arranged, composed.) See Compound.
- Capitulum solidum**.—(Antennæ.) (L. *caput*, and *solidus*, solid, complete.) See Simple.
- Caput**.—The head or first segment. (L. head, top.)
- Caput buccatum**.—(L. *caput*, and *bucca*, cheek.) See Buccate.
- Caput clypeatum**.—(L. *caput*, and *clypeus*, a shield.) See Clypeat head.
- Caput turritum**.—(L. *caput*, and *turris*, a tower.) See Turreted.
- Caratothecæ***.—The antennæ-cases, that portion of the theca enclosing the antennæ. (Allied to Gr. *keras*, a horn, and *theca*, a case.)
- “**Cardiac valvule**.”—The term applied by Beauregard to the structure similar both in position and structure to the œsophageal valve (?). (Gr. *kardia*, the heart; and L. *valvula*, a little valve.)

* Cerathecæ according to Kirby and Spence.

Cardinales.—The rods joining the labium to the head. (*L. cardo*, a hinge.)

Cardines.—Two narrow joints each slightly widened at the apex, which are portions of the cibarial apparatus of the Hymenoptera, and on the widened space of which the lora swing. (From *L. cardo*.)

Cardo.—A basal ring lying at the seat of the stipites in the Hymenopterous genitalia. (Saunders.) (*L.*)

Cardo.—The proximal joint of the protopodite. (*L.*)

Cardo.—The hinge; the lowest of the first pair of pieces constituting the maxilla, it is narrow, thin and transverse, and articulates with the gula, forming a right angle with the stipes. (*L.* a hinge.) See Protopodite.

Carina.—A keel. (*L.*)

Carinal.—Keel-like, pertaining to the carina. (*L. carina*.)

Carinate.—Having a longitudinal elevated line. (Bicarinate, Tricarinate, etc., have *two* or *three* such lines.) (*L. carina*.)

Carinatus.—The term used when the surface has elevated prominent lines and few in number. (*L. carina*.)

Carnose, Carneous.—Flesh-like in substance. (*L. caro*, flesh.)

Carpus.—The pterostigma. (*L. carpus*, wrist.)

Cartilaginous.—Resembling cartilage in structure, or appearance. (F.—L. F. *cartilage*, gristle.—L. *cartilaginem*, acc. of *cartilago*. **Der.** *cartilaginous*.)

Cartilago ensiformis.—(F. *cartilage*, and L. *ensis*, a sword, and *form*.) See Sternum collare.

Castaneous.—Chestnut-coloured. (L. *castane*, a chestnut).

Cataphracted.—Possessing a hard skin, or with scales closely united. (Gr. *kata*, up and down, and *phrasso*, to shut in.)

“**Catch.**”—A horny abdominal appendage of the Collembola (*Tomocerus*), generally situated on the ventral surface of the third abdominal segment, and is provided with only two segments, a basal portion, and two short arms, each being armed with four teeth on its outer margin. (F.—L. *cachier*, variant of O.F. *chacier*, to hunt, chase; hence to catch.)

Catenatus.—When the surface between impressed lines on the clytra, etc., is divided into oblong elevations, and is supposed to resemble a chain. (L. *catena*, a chain.)

Cateniform, Catenulate.—Chain-like. (L. *catena*).

Caterpillar.—The larva or eruca; the term is generally applied to the Lepidoptera. (From Eng. *cates*, food, and Fr. *pillar*, to rob. A corruption of O.F. *chattepeleuse*, a hairy cat; primarily applied to the hairy caterpillar.)

Cauda.—The tail, the posterior extremity. (L. tail.)

Caudad.—An abbreviated form of caudally, or caudal.

Caudæ, Caudulæ.—Tail like appendages. (L.)

Caudal.—Pertaining to the cauda. (L. *cauda*.)

Caudal fan.—The fan of feathered bristles to be seen on the ninth abdominal segment of some aquatic (*Anopheles*) larvæ.

Caudal pro-legs.—Sucker feet attached to the caudal segment of larvæ. (L. *cauda*, and *pro*, and *pedes*.)

Cauliculus.—Fibrous columns arising from the trabecula, and situated in front of the smaller peduncle. (L. *cauliculus*, dimin. of *caulis*, a stalk, stem.) See Mushroom Bodies.

Cellula analis.—The term used to differentiate the hindermost basal cell of the wing correctly when the posterior basal transverse vein assumes the character of a longitudinal vein, and runs to the border of the wing, causing the hindermost basal cell to join the border of the wing. (L.)

Cellulæ.—The divisions into which membranaceous wings are divided by the nervures. (L. *cella*, from *celo* to hide.)

Cellulæ axillares.—The Cellulæ spuria. (L.)

Cellulæ basales.—The basal cells of the wing, three in number; the first belonging to the middle of the wing, reaching as far as the transverse vein; the second belongs to the first section of the posterior part of the wing, extending as far

as the anterior basal transverse vein; and the third belongs to the second section of the posterior part of the wing, and joins the posterior basal transverse vein. (Loew.) (L.)

Cellulæ costales.—The cells belonging to the first or costal section of the wing. (Loew.) (L.)

Cellula discoidalis.—The discoidal or discal cell of the wing, belonging to the first section of the posterior part of the wing, and extending from the anterior basal transverse vein to the posterior transverse, and bearing on its anterior margin a small transverse vein. (Loew.) (L.)

Cellulæ marginales.—The cells belonging to the second or marginal section of the wing. (Loew.) (L.)

Cellulæ posteriores.—The posterior cells, belonging to the two first sections of the posterior part of the wing. (L.)

Cellulæ spuria.—The false cells, belonging to the third section of the posterior part of the wing; they are not usually completely separated from each other. (L.)

Cellulæ submarginales.—The cells belonging to the third or submarginal section of the wing. (Loew.) (L.)

Cellulæ ternatae.—Another term for the basal cells. (L.)

Central Body.—The only single or unpaired organ of the brain. A median commissural system (Deitl.). It is formed of a very fine and close

fibrillar web, situated on the median line and united with the cerebral lobes. (Viallanes.) (From Gr. *kentron*, and A.S. *bodig* + O.H.G. *potach*.)

Central region.—(Wing.) See Costal region; another term for the central region of the wing is the *discus*. (L. *centralis*, pertaining to the centre, from *centrum*, the centre, and *regio*, region.)

Centris.—The sting; the last inflated joint of the tail. (Gr. *kenteo*, to prick.)

Cephalic.—Pertaining to the head. (Gr. *kephalikos*.)

Cephalophragma.—A Y-shaped partition that divides the head internally into two chambers, an anterior and posterior; seen in *Locusta*, Leech. (Gr. *kephale*, the head, and *phragma*, an enclosure.)

Cephalotheca.—Head-case; the anterior hemispherical division of the theca, enclosing the head of the future perfect insect. (Gr. *kephale*, and *theca*, a case,)

Cerathecæ.—The antennæ-cases. (Gr. *keras*, a horn, and *theca*.) See Caratothecæ.

Cerci.—Hair. (L.)

Cercopeda.—The pair of anal cerci appended to the tenth abdominal segment, and which are generally regarded as true abdominal legs. (Packard). (Gr. *kerkos*, a tail, and *pous*, a foot.)

Cercopods.—Spindle shaped limbs of sixteen segments. (Gr. *kerkos*, and *pous*.)

Cerebral ganglion.—The nervous system of insects is characterised by the great size which the cerebral ganglion attains. The most anterior of the ventral series, the subœsophageal, is situated in the head, like the cerebral ganglion, and gives off branches to the mouth-parts. This is succeeded by three single or paired ganglia, one for each thoracic segment, and lastly by a series of abdominal ganglia. Often, however, some of these fuse; the second and third thoracics may for instance; the posterior abdominals also, or the second and third thoracics and all the abdominal ganglia may unite to form a single mass, which, in extreme cases, includes also the first thoracic ganglion. (Boas.) (L. *cerebrum*, brain, and *ganglion*.)

Cerebroidæ.—The knots in which the diffused brain of insects is centred. *Capitis cerebroida*. (L. *cerebrum*, brain.)

Cerebellum.—Generally a cordiform or longitudinal ganglion; it lies at the base of the skull, between the two projecting ridges of the internal skeleton of the head, and is entirely covered by the tentorium. The nerves which pass from the cerebellum are the *nervi mandibularum*, the *nervi maxillarum*, and the *nervi labii* (Burmeister.) (L. a little brain.)

Cerebrum.—A nervous cord of a yellowish-white colour, lying transversely across the œsophagus, generally forming two ganglia. Its entire circumference is covered with a thin transparent membrane, which loosely surrounds it. The

nerves which pass from the cerebrum are the *nervi antennarum* and the *nervi oculatorum*. (Burmeister). (L. brain.)

Cereous.—Wax like. (L. from *cera*, wax.)

Cernuous.—Bent; the apex bent downwards. (L. drooping.)

Cervical sclerites.—The eight chitinous plates strengthening the neck. (L. *cervix*, the neck, and Gr. *skeleros*, hard.)

Cervinus.—Fawn-coloured, grey, with a reddish-brown tint. (From L. *cervus*, a stag.)

Cespitose.—Matted together. (L. *cespes*, turf.)

Chalybeous.—Steel-like in colour, the metallic blue of steel. (Gr. *chalyps*, steel.)

Champagne-cork Organs.—(Forel.) (*Champagne* the province of France from where such wine is made, “a plain”; and *alcorque*, O.Span., allied to Arab. *al-cornoque*, the cork-tree. Span. *corcho*, and Gr. *ergon*, a work.) See Ampullaceous sensillæ.

Cheek.—The Gena. (A.S. *ceace*.)

Chela.—The terminal portion of a “foot,” with a movable lateral claw, like that of a crab. (Gr. *chele*, a claw.)

Chelate.—Possessing a moveable lateral claw like that of a crab. Possessing a chela. (Gr. *chele*.)

Cheliform.—Pincer-shaped. (Gr. *chele*, and *forma*, form, shape.)

Chiasma.—The central body of nervous matter formed by the junction and decussation of the optic nerves. (Gr. *chiasma*, the mark of a χ (*chi*) or cross.)

Chitin.—The hard shell-like outer skin of arthropods and hard cased insects. The chemical formula of Chitin is $C_{15}H_{26}N_2O_{10}$. (Gr. *chiton*, a tunic.)

Chitinous.—Pertaining to the chitin. (Gr. *chiton*.)

Chordotonal Organs.—Compact, spindle-shaped groups of sensillæ, each consisting of a chitin-secreting gland and a nerve cell, hung between two points of the cuticle, or between the cuticle and some internal organ. These sensillæ are connected with nerve fibres and believed to receive and transmit sound vibrations. (From Gr. *chorde*, an intestine, a cord; L. *chorda*, a cord.)

Chorion.—The shell of the egg; the firm chitinous outer layer of the egg (see Ovaries). (Gr.)

Chromatin.—The thread-like material which appears netted and looped, situated in the nucleus. See Achromatin. (From Gr. *chroma*, colour.)

Chrysalis. The quiescent state the larva assumes when full fed. Generally applied to Lepidoptera. (Gr. *chrysos*, gold.)

“**Chylific Stomach.**”—The mid-intestine. (Gr. *chylos*, juice, from *cheo*, to flow; and *stomachos*.)

Cibarial apparatus.—The organs which operate upon the food brought to the mouth. (L. *cibus*, food; and *ad*, and *paro*, to prepare.)

- Cibarious.**—Relating to food. (L. *cibus*.)
- Cicatricose.**—Having elevated spots of a different colour from the rest of the surface, resembling scars. (L. *cicatrix*, a scar.)
- Cicatrix.**—A large scar or scar-like impression. (L.)
- Cilia.**—Hairs (cerci). (L.)
- Ciliate.**—Fringed with hair ; set with parallel hairs. (L. *cilia*.)
- Cimicine.**—(Scent). A smell like that of the Bed-bug. (L. *cimex*, a bug.)
- Cinereus.**—The blue-grey colour of ashes. (L. from *cinis*, ashes.)
- Cingula.**—A coloured band. (L. *cingula*, a belt, girdle, girth.)
- Cingulate.**—A term used when the abdomen, or thorax, is wholly surrounded by one or more cingula. (L. *cingula*.)
- Cinnamomeus.**—The colour of cinnamon. (L. *cinnamomum*.)
- Circinal, Circinate.**—Spirally rolled inwards, and downwards. (L. *circinus*, compasses.)
- Circum.**—A Latin prefix signifying around, about, on all sides, in a circle.
- Circumgenital glands.**—Circular spinnerets disposed in groups around the genital orifice. (L. *circum*, *genitalis*, and *glans*.)
- Cirroze.**—Furnished with a fringe of hair, possessing (cirri) fringes. (L. *cirrus*, a curl of hair.)

- Cirrate.**—(Antennæ.) When the branches of a pectinate antenna are very long and curled, and sometimes, but not always, fringed with hair. (L. *cirratus*, having curled hair, fringed.)
- Cirrus.**—A curled lock of hair upon a thin stalk; a fringe. (L.)
- Claspers.**—Processes of the male genitalia for holding the female during sexual union. (A.S. *clyppan*, to embrace.)
- Clathrate.**—Latticed. (L. *clathrus*, a lattice.)
- Clava.**—The knob or club of the antennæ. (L. *clava*, a club.)
- Clavate.**—Knobbed; clubbed; knob-like. (L. *clava*.)
- Clavigerate.**—(Antennæ.) Terminating in a gradual club. (L. *claviger*, that bears a club.)
- Clavola.**—The club shaped end of antennæ, taking the terminating joints collectively. The remaining joints of the antennæ taken together. It includes the Capitulum. (From L. *clava*, a club.)
- Clavus.**—The hard part of the fore-wing next to the scutellum of the mesonotum when the wings are closed. (L. nail.)
- Clavus.**—The narrow strip of the elytra, which lies at the side of the scutellum, of the Hemiptera-Heteroptera. (Saunders.) (L.)
- Clypeate Head.**—When the head is tolerably flat, and the margin of the clypeus and the front are broad and flat. Caput clypeatum. (L. *clypeus*, a shield.)

Clypeiform.—Shield-shaped. (L. *clypeus*, and form.)

Clypeo-labral nerve.—The nerve which innervates both the clypeus and labrum, originating with the arched nerve as a single trunk from the base of the *curva cerebri*; progressing down to the clypeus and labrum, where it splits into various branches.

Clypeus.—Portion of the front of the face about the labrum; the portion of the skull immediately covering the mouth; the portion of the face between the labrum and the *encephalum*. (L. a shield.)

Clypeus, anterior.—[See *Anti-clypeus*.]

Clypeus, posterior.—[See *Post-clypeus*.]

Co.—A Latin prefix, signifying together; used for *con*—(=*cum*), together, before a vowel.

Coadunate.—Joined together at the base. (Elytra.) Permanently united at the suture. (L. *co*, for *con*-, =*cum*, together; and from *adiuvare*, to assist,—L. *ad*-, to; *in* *are*, to help.)

Coalite.—When parts usually separate are distinguished neither by incisure, segment, nor suture. (From L. *coalesco*, to grow together.)

Coalite stilt-prolegs.—When stilt prolegs unite to form only one leg, bifid at its apex. (L. *coalesco*, M.E. *stilte*,—Swed. *stylta*, Dan. *stylte*, a stilt; and L. *propedes*.)

Coarctate.—Contracted; compact. (L. *co*, and *arcto*, to compress.)

Coaretate.—(Pupæ). (L. *co*, and *arcto*). See Pupæ obtectæ.

Cocardes.—Retractile vesicular bodies on each side of the stethidium of insects of the genus *Malachius*.

Coccineus.—Scarlet; a bright or pale red colour. The colour of the blossom of the geranium. (L. of a scarlet colour.)

Cochineal.—A valuable dye from an insect found in Mexico (cocinilidæ). Red. (L. *coccinus*.)

Cochleate.—Twisted spirally like a screw. (L. *cochlea*, a snail or spiral screw.)

Cocoon.—The protecting case formed by the larva for the situation of its pupa. (Kirby.) (F. *cocon*.) See Incunabulum.

Cæca, also **Cæca**—Small purses or minor stomachs thrown off from the principal one. (L. *caecus*, blind.) See Stomach.

Cæloconic sensillæ.—Club-like sense hairs which lie horizontally and which are more or less enclosed in an elongated cavity in the chitinous integument. Both the shape and cellular structure of the hair is essentially the same as the basiconic sensillæ, the difference being the basiconic are *upright*, while the cæloconic are *horizontally* placed on the surface. (Berlese.) (From Gr. *koilia*, the belly, and *konos*, a cone.)

Coenogonous.—Oviparous at one season of the year, and ovoviviparous at another.

Col.—A Latin prefix. See Con.

Coleoptera.—A family of hexapoda, the beetle tribe, an order of insects having elytra which serve as a covering and protection for the true wings. (Gr. *koleos*, a sheath, and *pteron*, a wing.)

Collare.*—The collar, the short corneous cylindrical tube formed by the occiput being drawn out. (L. a collar.)

Collateral Glands.—Two much branched and convoluted tubular organs situated behind the bursa copulatrix, and partly resting under the fifth abdominal ganglion. (L. *collateralis*; *co-con*; *lateralis*, pertaining to the side.)

Colleterial glands.—Glands in the females of certain insects which secrete a glutinous substance which fastens the ova together. (L. *colleteri(um)*.)

Colleterium.—The colleterial glands. (Mod. Lat. *colleterium*, of, or pertaining to the colleterium of insects.)

Collembola.—An order of Apterous insects, now united with Thysanura under the order Aptera. (Gr. *kolla*, glue, and *embole*, a throwing or putting in, so called because they have an organ enabling them to fasten to the part upon which they are standing.)

Colligate.—Fixed to any part so as to have no separate motion of its own. (L. *colligo*, to bind together.)

* Klug, Kirby and Spence, apply this term to the prothorax of the Hymenoptera.

Collum.—The neck ; the constricted posterior part of a pedunculate head, by which it inosculates in the trunk. It includes the Nucha, Gula, and Myoglyphides. (L.)

Colon.—The approximate anterior portion of the rectum. (Gr. a limb, a member.)

Columnar. Tapering to one end like the shaft of a column. (L. *columna*, a column.)

Com.—A Latin prefix (See *Con.*)

Comate.—When the upper part of the head or vertex alone is covered with long hairs. (L. *comatus*, having hair.)

Comate.—When very long flexible hairs *thickly* cover a space on the surface. (L. *comatus*, having hair.)

Comate.—Hairy.

Combs.—The fine hairs situated upon the upper surface of each maxilla of the Culicidæ larvæ, and which serve to clean the Brushes. (See Brushes.) (A.S. *camb.*, + Du. *kam*, Icel. *kambr*, Dan., Swed. *kam*.)

Combs.—Three, sometimes four (?) strong curved hairs, situated on the free anterior border of each mandible of the Culicidæ larvæ, and which serve to clean the Brushes. (See Brushes.)

Commensal.—An animal living with or off another, without being parasitical. (L. *com*, and *mensa*, a table.)

- Commensals.**—The term given to those insects which inhabit galls not made by themselves, but do not interfere with the host (species of *Cetonia*, *Balaninus*, etc.). (L. *com*, and *mensa*.)
- Commissura.**—A joint in the costal nerve of the wings of Coleoptera, where they bend to take a transverse fold. (L. a joint.)
- Common.**—Common to two. When a spot, for instance, is partly on one elytrum and partly on another. (From L. *communis*, common.)
- Comose.**—Terminating in a tuft of hair or brush-like body; comate. (L. *coma*, hair.)
- Complanate.**—A convex or irregular surface, having a plane slight depression. (From L. *complano*, to level.)
- Complete.**—Perfect; entire; finished. (L. *com*, and *pleo*, to fill.)
- Complete metamorphosis.**—When there is a quiescent or sealed-pupal stage in the life history of an insect. When histolysis does take place.
- Complicate.**—Having longitudinal folds. (L. *com*, and *plico*, to fold.)
- Compostius.**—Compound; the term given to the gullet when it has a long pear-shaped cell opening from it, and extending beneath the stomach and intestines, yet having no communication with either; this is the case in all flies and gnats which feed on blood, and many of the same tribes which subsist on other fluids; the blood sucked is at once received into it, and allowed to slowly

return to the gullet as required, to pass ultimately to the stomach for digestion. (L. composed, arranged, made up.)

Compound.—(Antennæ). The term used in contradistinction to Simple, when a capitate antenna is so formed by several joints. (L. *compono*, to set together.) See Simple.

Compound.—(Motion.) When capable of both vertical and horizontal motion. (L. *compono*, to set together.)

Compound Ocellus.—When the eye of colour consists of three or more circles of colour. (L. *compono*, and *ocellus*, an eye.)

Compound Eyes (*Oculi*).—The two large many faceted eyes placed on each side of the head of insects, besides which they may also possess simple eyes (*ocelli*). Compound eyes consist of numerous hexagonal facets, the lenses of which combine the characters of both crystalline and vitreous humours. See *Oculi*.

Compressed.—Flattened by lateral pressure, as opposed to depressed. (L. *com*, and *pressum*, to press.)

Con.—A Latin prefix, denoting with. (L. *cum*, with.)

Concealed.—(Head.) When it is entirely withdrawn within the thorax, or is covered above by the thoracic plate. (L. *con*, and *celo*, to hide.)

Concolorous.—Uniform in colour in comparison of the parts. (L. *concolor*, of the same colour.)

Conduplicate.—Doubled or folded together. (L. *con*, *duo*, two, and *plico*, to fold.)

Cone.—(Eye.) A simple transparent crystalline body formed out of “cone-cells,” and found in the internal structure of the eye of insects. (Gr, *konos*, a cone.)

Confluent.—Running into one another. (L. *con*, and *fluo*, *fluxum*, to flow.)

Congenital Variation.—Variation due to inherited influence. (L. *con*, and *genitus*, part. of *gigno*, to beget.)

Congested.—Heaped together. (L. *con*, and *gero*, *gestum*, to bear.)

Conglobate gland.—An elongate gland situated below the ejaculatory duct at its hinder end. The function is unknown. (From L. *conглоbo*, to conglobate.)

Conglomerate.—Congregated. (L. *con*, and *glomus*, a clew.)

Conic, Conical.—Tapering like a cone from base to apex; cone-like. (L. *conicus*.)

Conic.—(Egg.) Conical, cone-shaped. (L. *conicus*.)

Conical.—(Pupæ.) (L. *conicus*). See Pupæ conicæ.

Conjugate.—Consisting of a single pair. (F. *conjugal*.—L. *coniugalis*; L. *conjugatio*, binding together in pairs.)

Connate.—Soldered together. (L. *con*, and *natus* born.)

Connectives.—Small thin cords connecting portions of the nervous system,—generally ganglia. (L. *con*, and *necto*, to tie.)

Connexivum.—The flat, reflexed or vertical border of the abdomen, to be seen in the Heteroptera. It is caused by sections of the abdomen enlarging to form a lateral margin. (From L. *connexus*, pa. par. of *connecto*, to join.)

Connivent.—The meeting of two lines so as to form an angle; convergent. (L. *connivens*, pr. par. of *connivo*, to wink.)

Conspere.—Thickly sprinkled with minute irregular dots often confluent. (From L. *con*, fully, and *spargo*, *sparsum*, to scatter.)

Consute.—Having very minute elevations in a series, at some distance from each other, of a different colour from the rest of the surface, and somewhat resembling *stitching*. (L. *con*, and *suo*, to sew.)

Contiguous.—Adjoining; touching; near. (L. *contigu-us*, that may be touched, near; with suffix *-us*.—L. *con-* (*cum*), with, and *tag*, as in *tac-tus*, p.p. of *tangere*, to touch.)

Contiguous.—When spots, puncta, granules, etc., are so close that they almost or altogether touch each other. (See above for Der.)

Contorted.—Twisted; incumbent upon each other in an oblique direction. (L. *con*, and *torqueo*, *tortum*, to twist.)

- Convoluta.**—(lacinia). The haustellum rolled up below the head like the spring of a watch (L. *convoluta*, to roll.)
- Convoluted.**—Rolled together, or one part upon another. (From L. *convoluta*.)
- Co-type.**—(L. *co*. and Gr. *typos*, an impression, from *typto*, to strike.) See Syntype.
- Coprophagus.**—Feeding on excrement. (G. *kopros*, dung, and *phago*, to eat.)
- Corbicula.**—The fringe of hairs situated on the tibiæ. (L.)
- Corbiculate.**—Furnished with a brush of stout hairs. (L. *corbicula*.)
- Corcula.**—The reservoirs in the dorsal channel through which the blood flows; a longitudinal series of little hearts, which receive blood by lateral apertures from the cavities of the body. (From L. *cor*, the heart, or *corculum*, a little heart.)
- Cordate, Cordiform, Cordatum.**—Heart-shaped. Ovate and hollowed out at the base, without posterior angles. (L. *cor*, the heart, and *form*.)
- Coriaceæ.**—(Proalæ.) When composed of a tough substance which bends without breaking, but never folds. (From L. *coriceus*, concerned with leather.)
- Coriaceous.**—Leather-like in substance. (L. *coriaceus*, from *corium*, leather.)
- Coriaria.**—(Lacinia). Long, leathery and flexible (L. *corium*.)

- Corium.**—The corneous or coraceous parts of the Hemelytra. (L. leather.)
- Cornea.**—The strong transparent skin of the eye, through which the rays of light pass. (L. *corneus*, horny, from *cornu*, a horn.)
- Cornea facets.**—The divisions of the compound eye. (L. *cornu*, and *facies*.)
- Corneate.**—Horned. (L. *cornu*, a horn.)
- Corneous.**—Horn-like in substance; horny. (L. from *cornu*.)
- Cornicle.**—A short blunt horn, or rounded protuberance. (L. *corniculum*, dimin. of *cornu*, a horn.)
- Cornicles, nectaries or siphuncles.**—Horny adjuncts to the sixth abdominal segment of Aphides (Linn.), which constitute the sheaths of certain excretory ducts, the delicate walls of which traverse their interior. They rise from the dorsal surface into more or less long moveable erect tubes, which may be either straight, curved, or vasiform.
- Corniform.**—Horn-shaped; long, mucronate, or pointed. (L. *cornu*, and *forma*.)
- Corium.**—The whole of the elytra, lying outside the clavus, and bounded at the apex by the membrane, of the Hemiptera-Heteroptera. (Saunders.) (L. the hide, rind, skin.)
- Cornutus.**—Horned; in the form of a horn. (L. *cornutus*, horned, from *cornu*, a horn.)

Coronate.—(Egg.) Surrounded at the superior extremity with a circle of strong spines, for the reception of another egg, whereby they hang together. (L. *corona*, a crown.)

Coronet.—An ellipsoidal ridge, seen in the puparia of the males of Lecaniinae. (L. *corona*.)

Coronula.—A coronet, or semi-coronet of spines. (L. *corona*.)

Corpus.—The body ; the whole crust of the insect ; consisting of the exoderma or external covering, and the esoderma or internal cuticle, which lines it. (L. body.)

Costa.—A longitudinal raised rib. (L. a rib.)

Costa.—(Wing.) The outer margin of the wing when it is outspread. (L. *costa*, a rib.)

Costal.—Pertaining to the costa. (L. *costa*.)

Costal cell (*cellula costalis*), **Costal area** (*area costalis*). That part of the wing lying between the anterior margin and the costal nervure. If the cell is divided by minor nervures—the costal cells or *cellulae costales*. (L. *costa*, a rib, and *area*.)

Costal nervure (*nervura costalis*).—The first principal nerve of the wing, it is the strong nervure which runs along the upper edge of each wing, either on the extreme edge or just below it. (L. *costa*, and Gr. *neuron*, a nerve.)

Costal region (*regio costalis*).—The wings of insects present a somewhat triangular figure ; the upper portion or side of this figure is called the

costal region ; the outer portion or side, the *exterior region* ; the lower portion or side, the *inferior region*, and the central portion, the *central region*. These regions have no precise or definite limits, but are somewhat vague and ideal. (L. *costa*, and from *regio*.)

Costalis (cellula and nervura).—The cell or nervure nearest the upper margin of each wing. (From L. *costa*.)

Costate.—Furnished with costæ,—longitudinal raised ribs. (L. *costa*.)

Costate.—(Egg.) Provided with short ribs, extending from pole to pole. (L. *costa*.)

Costiform.—In the form of costæ. (L. *costa* and *forma*, form.)

Cotyloid Cavities.—The Acetabula ; the cavities in which the coxæ move and with which they form a ball-and-socket joint. (Gr. *kotule*, a cup, and *eidōs*, form ; and L. *cavitas*, a hollow, from *cavus*, hollow.)

Coxa.—The hip, or first joint of the leg, connecting the subsequent joints of the leg to the body at the thorax. (L.)

Coxal.—Pertaining to the coxa.

Coxal Glands.—Coxal scent-glands, usually in the form of evaginable hypodermal pouches. (L. *coxa*, the hip, and *glans*.)

Cranium. The carneous covering of the head ; the skull. (Gr. *kranion*, the skull, and L. *cranium*.)

Crateriform.—Resembling the typical calathiform, but not so broad or wide. (L. *cratera*, a bowl, and *form*, shape, form.)

Cremaster.—The apex of the last segment of the abdomen. (Gr. *kremaster*, a suspender.)

Cremaster.—The stout, triangular, flattened, terminal spine of the abdomen, which aids the pupa in working its way out of the earth, when the pupa is subterranean. (Packard.)

The anal hooks by which many pupæ suspend themselves. (Kirby and Spence.) (Gr. *kremaster*.)

Crenate, Crenulate.—Furnished with small blunt teeth, which take the form of segments of small circles. (L. *crena*, a notch.)

Crepera.—A gleam of paler colour upon a dark ground. (L. *creper*, obscure.)

Crepuscle, Crepuscule.—Twilight. (L. *crepusculum*, a dimin. of *creper*, dusky.)

Crepuscular.—Active during the twilight. (L. *crepuscul(um)*.)

Cretaceous.—Chalky; composed of or like chalk. (L. *creta*, chalk.)

Cribellum.—A sieve-like plate which narrows anteriorly and opens as a small slit at the base and near the upper surface of the mandibles. (L. a small sieve, dimin. of *cribrum*, a sieve.)

Crinite, Crinitus.—When very long flexible hairs *thinly* cover a space on the surface. (L. *crinis*, hair.)

- Crisp.**—(Margin.) When the *limb* is disproportionately larger than the *disc* so as to render the margin uneven with irregular rise and fall. (L. *crispus*. curled.)
- Cristate.**—Having one or two very elevated lines usually crenate. Crested, tufted. (L. *cristatus*, tufted.)
- Croceus.**—Yellow, like the blossom of the crocus. (L. and Gr. yellow, saffron.)
- Crop.**—A thin walled sac situated in the thorax, and part of the abdomen, and when present is an enlargement of the end of the œsophagus, and lined internally with a muscular coat. (A.S. *cropp*, top, the caw.)
- Cross nerve.**—(M.E. *cross*, from Icel. *kross*, adopted from O. Irish *cross*.—L. *cruc-em*, acc. of *crux*, a cross; and Gr. *neuron*, a nerve.) See Subœsophageal commissure.
- Cruciate.**—Divided to the middle into four opposite arms, the angles being either four right ones, or two obtuse and two acute; cruciform. (L. *cruciatum*, crucified, to put in the form of a cross, from *crucio*.)
- Cruciform.**—In the form of a cross, cross-shaped. (L. *crux* (genit, *crucis*) a cross, and *forma*, shape.)
- Crusta.**—The shell of a crustacean. (L. *crusta*, the crust, the hard surface of a body.)
- Crustacea.**—A class of the articulatæ, including lobsters, shrimps, and wood-lice, so called from the crust-like shell which covers the body and legs. (L. *crusta*, the hard surface of the body.)

- Crustaceæ.**—(Proalæ.) When composed of a hard, brittle substance which neither bends nor folds without injury. (See Coriaceæ in contradistinction.) (L. *crusta*.)
- Crustaceous.**—Rigid and calcareous in substance. (L. *crusta*.)
- Crystalline.**—Transparent like crystal. The white transparent splendour of crystal. (From Gr. *krystallos*, ice, and from *kryos*, icy cold.)
- Cubital-cellule.**—The portion of the wing between the radial-cellure and the nerve which originates near the extremity of the cubitus.
- Cubital nervure.**—The nervure situated between the median and anal nervures of the wing. (L. *cubitus*, a bend, and Gr. *neuron*.)
- Cubitus.**—The second nervure of the exterior margin of the wing, extending from the base to the carpus. (L. *cubitus*.)
- Cubitus.**—The area lying between the anal area and media of the wing.
- Cucullate, Cucullated.**—Hooded, cone-shaped. (L. *cucullatus*, hooded.)
- Cucullus.**—A hood, a cone-shaped covering. (L. a hood.)
- Cucumiform.**—Cucumber-shaped in form. The *longitudinal* section is oblong, and the *transverse* circular. (the *b.* is excrescent; M.E. *cucumer*—L. *cucumerem*, acc, of *cucumis*, a cucumber; and *forma*.)

Cultelli.—The “knives”; the upper pair of instruments of suction, representing the mandibulæ of a perfect mouth. (L. *culter*, a knife.)

Culus.—The orifice at the end of the anus. (L. the fundament.)

Cultrate.—Coulter-shaped, straight on one side, and curved on the other. (L. *culter*, a knife, coulter of a plough.)

Cum.—Latin; with.

Cuneate, Cuneatum, Cuniform.—Wedge-shaped. (L. *cuneus*, a wedge.)

Cuneus.—The external-apical angle of the corium when separated off, as in the *Capsidæ*, *Cimicidæ*, etc. (Saunders.) (L. a wedge.)

Cuniform.—Wedge-shaped; whose *vertical* section is cuneate, and *horizontal* parallelogrammic. (L. *cuneus* and *forma*, form.)

Cupreus.—Coppery, bright coppery colour. (L. *cuprum*.)

Cupule.—A small cup-shaped organ on the end of the tarsi of certain male insects, and used as suckers. (A.S. *cuppe*, a cup.—Late L. *cuppa*, variant of L. *cupa*, a tub, in Late L., a drinking vessel.)

Cupuliferous.—Bearing cupules. (For Der. see above, and L. *fero*, to bear.)

Cupuliform.—Cup-shaped. (L. *cupula*, a little tub, a cup, dimin. of *cupa*, a tub; and *forma*, form.)

Cura Cerebri.—Two large nerve cords connecting the supra- and sub-œsophageal ganglia and with them forming the œsophageal ring. (L. *cura*, care, from *caro*, to take care for; and *cerebrum*.)

Curcumbitate.—(Egg.) Melon-shaped. (Apparently derived from the name of the turmeric plant *curcuma longa*, of East Indian origin.)

Cursorial.—Adapted for running. (L. *curso*, are, to run.)

Cursory. Formed for running. (Low L. *cursorius*, from L. *cursor*, a runner, from *cursus*, pa. par. of *curro*, to run.)

Cuspidate.—Sharply pointed; having a sharp-point like a spear. (L. *cuspis*, a point.)

Cuspidal.—Pointed; ending in a point. (L. *cuspis*.)

Cutellate.—Knife-like. (Scand, M.E. *cutten*, a weak verb, to cut. Of Scand. origin, but the traces of it are few. †Swed, *kotta*, to cut. *kuta*, *kata*, to cut with a small knife.)

Cutella.—A knife. (L.)

Cuticle.—The skin, or covering of the body. (Derma, Dermis.) (L. *cuticula*, dimin. of *cutis*, skin.)

Cuticula.—The cuticle. (L.)

Cuticular.—Pertaining to the cuticle. (L. *cutis*.)

Cutting teeth.—[See *Dentes incisivi*.]

Cyaneous.—Tinged with blue. (L.)

Cyaneus.—Bright blue. (L.)

- Cyathiform.**—Cup-shaped, (the mouth being wider than in Cupuliform). More or less obconical and concave in shape. (Mod. L. *cyathiformis*, from L. *cyathus*, a cup ; and *forma*, shape, form.)
- Cyclolabia.**—The term applied to the shorter forms of forceps of the Forficulidæ (Earwigs) when these organs are of variable length. (Burr.) (Gr. *kuklos*, a circle, and L. *labia*, a lip [?]).
- Cydariform.**—Globose, but truncate at two opposite sides.
- Cylindraceous.**—Cylindrical. (Gr. *kylindros*, a roller.)
- Cylindrate.**—(Egg.) Cylindrical, shaped like a cylinder. (Gr. *kylindros*, a roller.)
- Cymbiform.**—Boat-shaped ; navicular. (L. *cymba*, a boat, a skiff.)
- Cytotheca.**—(Gr. *kutos*, the skin, and *theca*, a case.) See Thoracotheca.
- De.**—A Latin prefix signifying down, or away from. It sometimes negatives and sometimes intensifies the sense.
- Deaurate.**—A metallic hue, which appears as if the gilding was worn off. (From L. *deauro*, to gild.)
- Decaton.**—The tenth segment of insects. (From L. *decem*, ten.)
- Deciduous.**—Falling off easily. (L. *de*, down, and *cadere*, to fall.)
- Declivous.**—Gradually sloping. (L. *de*, and *clivus*, a slope.)

- Decolorate.**—When the colour appears to be discharged from any part. (L. *decolor*, faded.)
- Decrepitant.**—Crackling (Say). (L. *de*, and *crepitus*, noise [*crepare*, to crackle.]).
- Decumbent.**—Bending downwards; upright at the base, and bending down at the tip. (From L. *decumbo*, to lie down.)
- Decurved.**—Bent downwards.—(L. *de*, and *curvus*, bent.)
- Decurrent.**—Closely attached to and running down another body. (L. *de*, and *curro*, to run.)
- Decussated.**—Arranged in pairs which alternately cross each other. (L. *decusso*, to cross.)
- Deflexed.**—Bent down. (L. *de*, and *flecto*, *flexum*, to bend.)
- Dehiscent.**—Gaping apart towards the apex. (L. *dehisco*, to gape.)
- Deltoid.**—Triangular spear-shaped; (Say). (Gr. *deltoeides*, triangular: *delta*, a triangle, *eidos*, like.)
- Demi-**—A prefix signifying half. (F.)
- Demidiate.**—Half round. (L. *dimidium*, acc. half.)
- Dendroid.**—Shrub-like, having the appearance of a little tree. (Gr. *dendron*, a tree, and *eidos*, like.)
- Dentate.**—Toothed; furnished with tooth-like prominences. (From L. *dentatus*, toothed.)

Dentate-serrate.—Tooth-serrated; the denticulations being themselves serrated on their edges.

Dentate-sinuate.—When the denticulations are sinuate.

Dentes.—Teeth; the pointed processes situated on the inner side of the mandibulæ. (L. *dens*, a tooth.)

Dentes incisivi.—Cutting teeth; superior, compressed, sharp-edged processes situated on the inner side of the mandibulæ. (L. *dens*, and *incido*, to cut into.)

Dentes laniiarii, canina.—Canine teeth; when the cutting teeth are very sharp and conical. (L. *dens*, and *canis*, a dog.)

Dentes molares.—Grinding teeth; are the inferior thicker teeth on the mandibulæ, and which are provided with a broad grinding surface. (L. *dens*, and *molo*, grind.)

Denticulate.—(Diminutive of dentate.) Furnished with small teeth. The term is used loosely. (From *dens*, a tooth.)

Denuded, Denudated.—Destitute of covering. (Wings.) Without hairs or scales. (L. *denudo*, to make bare.)

Deorsum.—(Direction.) Downwards. (L.)

Dependent.—Hanging down. (L. *dependo*, to hang down.)

Depressed.—Flattened as if by pressure from above; often used as in opposition to “compressed”—flattened by lateral pressure. (L. *deprimo*, *depressum*, to press down.)

- Depressors.**—Wing muscles, attached to the wing-root, outside the fulcrum. (L. *deprimo*, *depressum*.)
- Derma, Dermis.**—The cuticle or skin. (Gr. *derma*, the skin, from *dero*, to flay.)
- Dermal.**—Pertaining to the derma.
- Dermata.**—(Pupa.) When the prior skin is retained, and no trace of the situation of limbs is visible. (Gr. *derma*, the skin.)
- Detonant.**—Emitting a sudden noise. (L. *de*, and *tono*, to thunder.)
- Deuto.**—From the Greek *deuteros*, second, and used as a prefix.
- Deutocerebræ.**—The second segment of the head, the antennal segment, whose appendages develop into feelers, appearing first behind the mouth, but moving as growth proceeds. (Gr. *deuteros*, second; and L. *cerebrum*, brain.)
- Deutocerebon.**—The mid-brain, consisting of the olfactory nerve-centres. (Gr. *deuteros*, second; and L. *cerebrum*, brain.)
- Di.**—A Greek prefix signifying double or two. (Gr. *dis*, twice.)
- Dia.**—A Greek prefix signifying through.
- Diaphanous.**—Transparent, but less purely than hyaline. (Gr. *diaphanes*.) See Pellucid.
- Dichotomous.**—Dividing regularly into pairs. (Gr. *dicha*, in two parts, and *temno*, to cut.)
- Didymous.**—When a pair of spots, etc., touch, or are confluent; twin. (Gr. *didymos*, twin.) See Geminous.

- Diffracted.**—Bending in different directions. (L. *dis*, apart, and *frango*, to break.)
- Diffuse.**—Spreading. (L. *diffundo*, to pour abroad, from *dis*, away, and *funo*, to pour.)
- Digitate.**—Widened and divided like the hand, if slender and elongate; if not slender and elongate the term “palmate” is used. (From L. *digitus*, a finger or toe.)
- Digitules.**—Appendages usually present on the feet of the Coccidæ, either broadly dilated or in the form of knobbed hairs. (From L. *digitus*.)
- Digitus.**—The toe or “foot”; the remaining joints of the tarsus taken together. (L.)
- Dilatate.**—Disproportionably broad in part. (L. *dilato*, *dilatatus*, to make broad.)
- Dilutus.**—Pale in colour. (L. diluted.)
- Dimerous.**—Composed of two pieces; in parts arranged in pairs. (Gr. *di*, and *meros*, a part.)
- Dimidiate fascia.**—A fascia traversing only *half* the wing. (L. *dimidium*, the half, from *dis*, and *medius*, the middle; and *fascia*, a band.)
- Dimidius.**—Half an inch. The term is universally used to indicate “half the size.” (For example, *dimidio minus*, half as large; *dimidio majus*, by one half larger; *dimidio latus*, by one half broader, etc.) In the same way the comparative numerals are applied, triplex, quadruplex, etc. Thus, one third as large, *triplo-minus*; three times as large, *triplo-majus*; one-fourth as large, *quadruplo-minus*; four times as large, *quadruplo-majus*. Quineuplex and sextuplex are seldom, if ever, used. (L.)

- Dimorphic, Dimorphous.**—Presenting two distinct types in the same sex. (Gr. *di*, and *morphe*, form.)
- Dioptrate.**—Applied to an ocellate spot, of which the pupil is divided by a transverse line.
- Dioptrate ocellus.**—A *fenestrate ocellus* divided by a transverse line. (From G. *dia*, through ; and *optomai*, to see.)
- Diptera.**—A family of hexapoda. An order of insects including the true flies, as the common house-fly, which possess only two wings and two halteres. (Gr. *di*, two, and *pteron*, a wing.)
- Dis.**—A Latin prefix, denoting separation, a parting from ; away ; and having therefore the force of a privative and negative.
- Disc.**—The middle of the central portion. (L. *discus*.)
- Disc.**—The centre of the superficies externa. (L. *discus*, and from *caro*, flesh.)
- Discal cell.**—(Wing.) See *Cellulæ discoidalis*.
- Discoidal.**—Pertaining to the disc ; like the disc in form. (L. *discus*, and *eidos*, like.)
- Discoloured, Discolorate.**—When the same part of an insect has different colours. For example, legs are called discoloured when the anterior are red and the posterior black. (L. *dis* and *color*, colour.)
- Discrete, Discreted.**—The term used to show one part is well defined, or marked off from the other. (L. *discretus*, to separate.)

Discus.—The central portion of the wing. (L. *discus*.) See Costal region.

Discus of Maxilla.—The disc or stalk of the maxilla, the second portion adjoining the insertion. (L. *discus*, and *maxilla*, the jaw.) See Insertion.

Discussating.—Nerve fibres crossing each other. (L. *dis*, and *quatio*, to shake.)

Dispersed.—Having the surface markings resembling spots standing apart. (L. *dis*, and *spargo*, *sparsum*, to scatter.)

Dissilient.—Bursting open elastically. (L. *dis*, and *salio*, to leap.)

Distant.—When parts are separated from each other by a *suture*, or *incisure*. (Fr. *distant*,—*distans*, pres. pt. of *distare*, to stand apart.)

Distant (*ant. distantes*).—(Antennæ.)—The term used when the base of the antennæ are placed very widely apart. (L. *dis*, and *sto*, to stand.)

Distichous (*distichæ*).—(Antennæ.) When the processes of a pectinate antenna originate from the apex of the joint, and do not incline at right angles to the sides, but bend forwards at acute angles. (From Gr. *dis*, twice, and *stichos*, a row.)

Distinct.—When spots, puncta, granules, etc., do not touch, or run into each other, but are individually separate. (O.Fr. *distinct*,—L. *distinctus*, distinguished.)

Divaricate.—Used of two parts that are contiguous at the base and very strongly dihescent; forked, or parted into two branches. (L. *dis*, and *varico*, to straddle.)

Divaricate.—Standing out very wide. Forked or divided into two branches. Branching off so as to form an obtuse angle above and an acute angle below. (L. *dis*, and *varico*.)

Diverticula.—A hollow appendage branching from the intestinal canal, and terminating in a cul de sac. (L. *diverticulum*, a by-road, or digression.)

Dolabriform.—Hatchet-shaped.—Flat, with a prominent keel and cylindrical base. (L. *dolabra*, an *axe*, and *forma*, shape.)

Dorsal.—Pertaining to the back, or upper surface. (From L. *dorsum*, the back.)

Dorsal segments.—Transverse segments of the back, the sides of which often lap over and cover those of the ventral segments. (L. *dorsum*, and *seco*, to cut.)

Dorsal spiracles.—Lateral breathing pores seen in the dorsal segments, and which are often covered by the preceding segment. (L. *dorsum*, and *spiritus*, breath, from *spiro*, to breathe.)

Dorsal vessel.—A slender tube opening from the hindermost chamber of the heart, and running the length of the abdomen on the median line, being attached to the dorsal wall of the segments by several triangular muscles. (L. *dorsum*, and M.E. *vessel*.)

Dorsolum.—That portion of the superior surface which lies between the collare and scutellum, upon which are found the pteropega. (L. from *dorsum*, the back.)

Dorsum.—The inner margin of a wing. (L.)

Dorsum.—The back, or upper part of the body. (L.)

Double ocellus.—When two *eyes of colour* are included in the same circle or spot. (L. *duo*, two, and *plus*, or *plenus*, full, from *pleo*, to fill, and *ocellus*, a little eye.)

Ductus ejaculatorius.—The ejaculatory duct. (L.)

E.—A form of *ex*. (See *Ex.*)

Ecailles.—The term Lacaze Duthier gives to the sting darts and sheath of the family *Dasygastræ* or *Gastrilegides*, when they are prolonged laterally into curved sclerites.

Ecalcarate.—Without a spur, or horn. (L. *e=ex*, without, and *calcar*, a spur.)

Ecaudate, Excaudate.—(Wing.) Destitute of tail-like processes. (L. *e*, without, and *cauda*, a tail.)

Ecdysis.—The casting of the skin; moulting. (Gr. *ekduo*, to strip off.)

Echinate.—When the dispersed elevations rise very high and are very thin. (From Gr. *echinos*, a hedgehog.) See *Muricate*.

Echinatus.—When the surface is covered with pustules produced into spines. (Gr. *echinos*.) See *Muricate*.

Ectoderm, or Epiblast.—An outer layer of cells formed by the surface cells overgrowing the open edges of the invagination of the blastoderm. (Gr. *ektos*, outside, and *derma*, skin.) See Endoderm.

Ectotrachea.—The outer or peritoneal membrane covering the tracheæ. (Gr. *ektos*, outside, and *trachea*.)

Edentate.—Without teeth. (L. *edentatus*, toothless.)

Edentulous.—Destitute of teeth. (L. *edentatus*.)

Edge.—The Margin. (L. *acies*, edge.) See Acies.

Egg.—Ovum. (Icel. *egg*. A.S. *æg*.)

Egg-guide.—The moveable, triangular plate which bounds the oviduct on the ventral side; especially seen in Acrydiidæ. (*egg*, and F. *guider*, to guide.)

Ejaculatory duct (*Ductus ejaculatorius*).—The duct which ejects the spermatozoa, formed by the two sperm cells joining to form the tube. (L. *e* and *jacio*, *jactum*, to throw, and *ductum*, to lead.)

Elastes.—The elastic organs on the ventral segments which assist in the act of leaping. (Gr. *elao*, *elaso*, to drive or urge.)

Elevators.—Wing muscles, attached to the lower region of the thorax-wall, and fixed to the wing-root inside the fulcrum. (L. *e*, and *levo*, to rise, from *levis*, light.)

Ellipticum.—Elliptical in surface shape. (Gr. *elleipsis*.)

Elongate.—(Antennæ.) In relation to the body ; the term is used when the antennæ is the same length as the body. (L. *e*, and *longus*, long.)

Elytra, Elytrum.—The wing cases ; the fore-wings of Coleoptera. (Gr. *elyo*, to wrap up.)

Em.—A form of the English prefix *en*.

Emarginate.—A piece cut out of the margin ; notched. (L. *e*, and *margo*, the edge.)

Embolium.—The latero-basal portion of the corium when separated off, as in the cimicidæ. (Saunders.) (Gr. *embolos*, a wedge, a graft.)

Embossed.—The sculpture “thrown up” ; raised above the surface. (F.—L. and Gr. From *Em-*, prefix ; and *Boss*. (*boss*, from F. *bosse*, a swelling), Or (F.—Late L.) O. Fr. *embosquer*, to shroud,—O. Fr. *em-* (L. *in*), in.)

Empodium.—The term used for the pulvilli according to the order of the insect. (L. *em* or *im*, in, and *podium*, a pedestal.)

En.—A prefix representing the Greek *en*, signifying in, or, on ; the Latin *in*, signifying in or into ; or the Saxon *em*, signifying to make, to surround, or to intensify the meaning.

Encephalum.—The brain of insects consists of two ganglia, one of which passes over the pharynx, and the other beneath it ; both are connected by means of nervous cords, which run from the upper to the under, and which embrace the œsophagus. (Janet). (Gr. *en*, and *kephale*, the head.)

Edentulous.—Destitute of teeth. (From L. *e.* (*ex*), and *dens*, a tooth.)

Endo.—A Greek prefix extensively used in scientific terms, signifying within (*endon*).

Endoblast.—An inner layer formed by the invaginated cells of the invagination of the blastoderm. (From Gr. *endon*, within, and *blastos*, a growth or germ.)

Endoderm, or hypoblast.—The inner embryonic cell layer arising from two cell masses situated at either end of the embryo in the neighbourhood of the fore-gut and the hind-gut. (Gr. *endon*, and *derma*, the skin.)

Endopodite.—The second part of the maxilla. (Gr. *endon*, within, and *pous*, from *podos*, foot.)
See Stipes.

Endoskeletal rods.—Apodemes. (Gr. *endon*, within, and Eng. *skeleton*.)

Endotrachea.—The inner membrane lining the trachea, and which is a continuation of the cuticle of the integument. (Gr. *endon* and, *trachea*.)

Ennaton.—The ninth segment in insects. (Gr. *ennea*, nine.)

Ensate.—Gradually tapering till it ends in a point; sword-like. (L. *ensis*, a sword.)

Ensiform.—Sword-shaped. (L. *ensis*, a sword, and *forma*, shape.)

Entire.—Without excision, emargination, or projection. (From O.F. *entier*, whole, L. *integrum*, whole, acc. of *integer*.)

Entomoline.—The name Lassaigue gave to chitin (Gr. *entomon*, an insect, and *linon*, thread [chitin*].)

Entomology.—The science which treats of insects ; a branch of Zoology. (Gr. *entomon*, an insect, and *logos*, science.)

Entomophagous.—Insect-eating. (Gr. *entomon*, and *phago*, to eat.)

Entothorax.—The portion formed by the apodemes which pass up from the sternum. (Audouin.) (Gr. *entos*, within, and *thorax*.)

Ep, Epi.—A Greek prefix, signifying on, or upon.

Epiblast—The outer layer of cells in an embryo. (Gr. *epi*, and *blastos*, a bud.) See Ectoderm.

Epicnemis.—An accessory joint at the base of the tibia in many Arachnida, which does not appear to have separate motion. (Gr. *epi*, on, and from *nemo*, to distribute).

Epicranium.—The crown ; the dorsal and posterior surface of the head, from the front across the vertex to the posterior cavity. (Gr. *epi*, on, and, *kranium*, the skull.)

Epidermal, Epidermic, Epidermidal.—Pertaining to, like, or applied to the epidermis ; covering the skin. (Gr. *epi*, on, and *derma*, the skin.)

Epidermis.—The cuticle or outer skin. (Gr. *epi*, on, and *derma*.)

* Cassell's Encyclopædic Dictionary, 1887, p. 344, par. 3.

- Epididymis.**—The convoluted mass of tubes comprising some twenty folded bundles formed by the vas deferens. (Dufour.) (Gr. *epi*, upon, and *didymos*, a testicle.)
- Epigastrium.**—The first entire ventral segment. It includes the Mucro, and Tympana. (Gr. *epi*, on, and *gaster*, the belly.)
- Epimera** (sing. **epimerum**).—The “flanks,” the point of union of the legs to the lower arcs of the segment formed by the pleurites. (Gr. *epi*, and *meros*, the thigh.)
- Epiopticon.**—The second swelling of the optic tract. (Gr. *epi*, and *optikos*, pertaining to sight.)
- Epipharynx**—A small valve situated under the Labrum, that in many Hymenoptera closes the Pharynx, and is an appendage of its upper margin. Synonymous with lingua. (Gr. *epi*, and *pharynx*.)
- Epipleura.**—The deflexed margin of the elytra immediately beneath the edge. (Gr. *epi*, and *pleura*.)
- Episternum.**—The plate situated between the epimerum and sternum. (Gr. *epi*, and *sternum*, the breast.)
- Epistoma.**—That part of the face between the front and labrum, equivalent to the anticypeus. (Gr. *epi*, and *stoma*, a mouth.)
- Epistomis.**—Latreille’s term for the elypeus. (Gr. *epi*, and *stoma*.)

- Epupillate.**—An ocellate spot lacking a pupil. (L. *e*, and *pupillus*, the pupil.)
- Equate.**—Without larger partial elevations or depressions. (L. *aequus*, equal, from Sans. *eka*, one.)
- Equitant.**—Folded one upon the other. (L. *equitans*, riding.)
- Eroded.**—(Edge.) Possessing irregular teeth and emarginations. Gnawed. (L. *erodo*, to gnaw off.)
- Erose.**—Sinuate, with the sinuses cut out into smaller irregular notches, as if gnawed. (From L. *e*, and *rodo*, *rosum*, to gnaw.)
- Erosus.**—Having the appearance of being gnawed, due to the irregularity of the incisions. (From L. *rodo*, *rosum*.)
- Erect.**—Nearly vertical.—(L. *e*, and *rectus*, straight.)
- Eruca.**—Larva. (L. a caterpillar.)
- Eruciform Larva.**—The soft-skinned worm-like grub which prevails among the most highly developed insects—moths, flies, ants, bees, etc. (L. *eruca*, and *forma*, model, and *larva*, a mask.)
- Escutellatus.**—Without a scutellum. (L. *e* (*ex*), and *scutum*, a shield.)
- Esoderma.**—A fibrous cuticle lining the exoderma. (Gr. *eso*, within, and *derma*, the skin.)
- Eucone eyes.**—Eyes which have the cones perfectly developed though they may vary much in form. (Gk. *eu*, well, and *konos*, a cone.)

- Ex-**.—A Latin prefix signifying out, out of, proceeding from, and sometimes beyond and not.
- Exarate.**—Having furrows with perpendicular margins. (L. *ex*, and *arare*, to plough.)
- Exaratus.**—Sulcated. (L. *ex*, and *aro*, to plough.)
- Exarticulate.**—(Antennæ). Having but one joint ; similarly biarticulate—two jointed ; triarticulate—three-jointed, etc. (L. *ex*, and *artus*, a joint.)
- Excaudate, Ecaudate.**—(Wing.) Destitute of tail-like processes. (L. *ex*, and *cauda*, a tail.)
- Excind, Excindate.**—When the end has an angular notch taken out. (L. *ex*, and, *cæsum*, to cut.)
- Excision.**—A piece cut off, or out. (L. *ex*, and *cæsum*, to cut.)
- Excurved.**—Curved outwards. (L. *ex*, and *curvus*, curved.)
- Exo.**—A Greek prefix signifying on the outside, without.
- Exochorion.**—(Embryol.)—The remains of the epithelium of the ovarian follicle. (L. *ex*, and *chorion*.)
- Exoderma.**—The external covering, or skin. (L. *exo*, and *derma*, skin.)
- Exopodite.**—The third part of the maxillary palp—always three-jointed. (L. *exo*, and *pous*, *podos*, foot, and suff. *ite*.)
- Explanate.**—Widened out, expanded. (L. *ex*, and *planus*, a plain.)

- Exscalpate.**—Having a variety of irregular longitudinal depressions. (L. *ex*, and *scalpo*, to cut.)
- Ex-scutellate.**—Having no scutellum. (L. *ex*, and *scutum*.)
- Exserted.**—Protruded, opposed to inclosed. (L. *exsero*, to thrust out.)
- Exsertum.**—(Head.) Thrust forth; free. (L. *exsero*.) See Free.
- Extensor Femoral.**—One of the femoral muscles passing through the haunch and trochanter. (From L. *extensor*, and *femur*, *femorus*, the thigh.)
- Exterior Edge.**—(Wing.) The edge of the wing extending from the base to the apex. (L. *exterior*, from *exter*, on the outside, and M.E. *egge*, edge.)
- Exterior Margin.**—(Wing.) The exterior edge. (L. *exterior*, and *margo*, the margin.)
- Exterior Palpi.**—The maxillary palpi. (L. *exterior*, and *palp*, the lip.)
- Exterior Region.**—(*regio exterior*).—(Wing.) (L. *exterior*, and *regio*, a region.) See Costal region.
- External Chiasma.**—The chiasmatic fibres of the external medullary mass. (L. *externus*, and Gr. *chiasma*, the mark of a χ (*chi*) or cross.)
- External Medullary Mass.**—The second swelling of the optic tract, the epipticon.)
- External Ovipositor** (*ovipositor exertus*).—(L. *externus*, external; *ovum*, an egg, and *positum*, to place.) See Ovipositor.

External Paramera.—The whole group (except the internal paramera) of the genital appendages of the male :—the stipites, volsellæ, and laciniaë. (Verhöff and Emery.)

Extra.—A Latin prefix denoting outside of ; beyond usual ; in excess.

Extra-ocular (ant. extra-ocularis).—(Antennæ.) Placed very distant from the eyes ; inserted on the outside of the eyes. (L. *extra*, and *oculus*, the eye.)

Extrorsum.—(Direction.) Outwards. (L. *extrorsus*, from *extra*, without.)

Exuvia, æ.—Cast-off skin. (L.)

Eye of Colour.—The term of comparison between the oculus—the true eye, and the ocellus—the eye of colour, so frequently seen upon the wings of Lepidoptera. (M.E. *eye*, *eighe*.)

Facets.—The lenses or divisions of the eyes.—The eyes are said to be coarsely or finely faceted according to the number and size of these. (Fr. *facette*.)

Faceted Eye.—The compound eye.

Facies.—General aspect of a species, genus, or group of insects. (L. *facies*, aspect.)

Facies.—The face ; the upper surface of the head, it includes all the parts that lie between its junction with the prothorax and the labrum ; *viz.*, nasus, postnasus, frons, occiput, genæ, tempora, oculi, stemmata, and antennæ. (L. *facies*, face.)

Falcata.—(Lacinia.) Acute and bent over towards the opposite lacinia; sickle-shaped. (L. *falcatus*, form *falx*, *falcis*, a sickle.)

Falcate.—Resembling a sickle. (L. *falcatus*.)

Falciform.—(Mandibulæ.) When long and curved in the form of a sickle. (L. *falx*, and *forma*, form.)

Fallopian Tubes.—See oviduct. (The name Fallopian tubes is so called after an Italian anatomist, *Fallopis*, mistakenly regarded as the discoverer.)

Farinose.—Pertaining to a mealy appearance. (From L. *farina*, meal.)

Fascia.—A coloured band. A broad transverse band. (L. *fascia*, a band.)

Fascia.—A broad transverse stripe; a stripe, which is broader than a line. (L. *fascia*.)

Fasciatus, Fasciate.—Having a broad transverse stripe. (From L. *fascia*.)

Fascicle, Fascicule.—A bundle of long hair. (L. *fasciculus*.)

Fasciculate.—(Antennæ.) Every joint possessing a distinct pence, or long hair. (From L. *fasciculus*, a little bundle.)

Fasciculate.—Possessing fascicles. (L. *fasciculus*.)

Fastigate.—Flat-topped; equal in height. (L. *fastigiatus*.)

Fat Cells.—Large masses filling out all the spaces between the viscera. They are filled with fat globules, and are of mesodermal origin. (A.S. *fat*, and L. *cella*, a cell.)

Fatiscent.—Spontaneously mouldering and falling to pieces in the air. (Say.) (L. *fatisco*, to gape open.)

Fauna.—Animals indigenous to any region or period, as protected by the fauns. (L. *faunus*, from *faun*,—*fareo*, to favour.)

Favose.—Resembling honey-comb. (L. *favus*, honey-comb.)

Fecundation.—The act of impregnation. (From L. *fecundo*, to make fruitful.)

Feet.—Organs of locomotion situated beneath the body. (Say.) (A.S. *fet*, sing. *fet*.)

Female pronucleus.—The nucleus of the egg-cell. (L. *femina*, a woman, and *pro*, and *nucleus*, from *nux*, a nut.)

Femoris caput.—The head of the femur (L. *femur*, *femoris*, and *caput*, head.) See Femur.

Femoris scapus.—(L. *femur*, *femoris*, and *scapus*, a shaft.) See Femur.

Femoris trochanter.—(L. *femur*, *femoris*, and Gr. *trochanter*, a runner.) See Femur.

Femur.—The thigh, a long stout joint, connected anteriorly with the *trochanter*, and posteriorly with the *tibia*, it possesses free movement, and is composed of three pieces the separation of which is marked by strong sutural lines, these are called the first, second, and third joints of the femur—*femoris caput*; *femoris trochanter*, and *femoris scapus*. When two parts only are dis-

cernible, they are the second and third parts; when only one, it is the third part, and is alone called the thigh, or *femur*. (L. *femur*, *femoris*, the thigh.)

Fenestræ.—Two white patches situated at the inner side of the antennæ. (L. *fenestra*, a window.)

Fenestrate ocellus.—When the *eye of colour* has a transparent spot. (L. *fenestra*, and *ocellus*, an eye.)

Fenestrate.—An epithet applied to transparent spots on the wings of insects. (L. *fenestra*.)

Fenestrated.—Marked with, or having, transparent spots, surrounded by a darker colour. (L. *fenestra*.)

Ferrous.—Metallic grey of polished iron. (L. *ferrum*, iron.)

Ferruginous.—Pertaining to a rust-red colour. (L. *ferrum*.)

Fetid.—(Scent.) A disagreeable smell. (L. *fætidus*, stinking.)

Fila.—Threads. (L. *filum*, a thread.)

Filaceous.—Possessing filæ. (L. *filum*.)

Filate.—(Margin.) When the edge is separated by a channel, often producing a very thin thread-like margin. (L. *filum*.)

Filiate, Filiform.—Thread-like in appearance. (L. *filum*.)

Filiform.—(Antennæ.) Uniform throughout, like a thread. (L. *filum*.)

Filippi's Glands.—Two whitish lobated masses in the labium on each side of the common duct of the spinning gland of larvæ. (Blanc.)

Outgrowths of the spinning gland provided with peculiar excretory cells, or evaginations of the entire glandular epithelium. (Packard.)

Fimbria.—A fringe; an ornamental appendage to a border; something resembling a fringe. (L.)

Fimbriate. (Antennæ.)—Setaceous, and each joint furnished with a single hair on the side. (From L. *fimbria*.)

Fimbriate.—Fringed with hair of irregular length. (L. *fimbria*.)

Fissate.—(Surface.) Appearing as if broken. (L. *fissum*, to cleave.)

Fissure.—A crevice. (L. *fissura*.)

Fistula.—The intermediate subquadrangular pipe, formed by the union of the two branches of the Antlia, which conveys the nectar to the pharynx. (L. *fistula*, a pipe.)

Fistular.—Hollow, applied to a hollow cylinder. (L. a pipe.)

Flabellate, Flabelliform.—Fan-shaped, with the upper portion prolonged into long branches. Having long thin processes lying flat on each other like the folds of a fan. (L. *flabellum*, a fan.)

- Flabellum.**—A curious flattened, notched process which overhangs the base of certain thoracic hairs of some of the Culicidæ larvæ. (L. a fan.)
- Flagellate.**—Possessing flagella; possessing a flagellum. (L. *flagellatus*, pa. par. of *flagello*, to whip.)
- Flagelliform.**—Resembling a flagellum; whip-like; whip-shaped. (L. *flagelli*, genit. of *flagellum*.)
- Flagellum.**—The terminal portion of the antennæ situated beyond the pedicellus; the apex. (L.)
- Flagellum.**—The joints of the antennæ—the scape, or first, being excepted—of the Hymenoptera aculeata. (L.)
- Flasked-shaped sensillæ.**—Ampullaceous sensillæ of an exaggerated form. The chitinous ampulla being greatly lengthened and attenuated to form a narrow sac enclosing the sense hair, and to connect by means of a slender tube with the integumental pore.
- Flavescent.**—Being of a somewhat yellow colour. (L. *flavus*, yellow.)
- Flavo-virens.**—Bright green, with yellow predominating. (L. *flavus*, and *virens*, green.)
- Flavus.**—Pure, clear yellow. (L. *flavus*.)
- Flegellum.**—A whip-like appendage; a whip-like bristle. (L. a whip.)
- Flexor femoral.**—The second femoral muscle, attached within the outer face of the trochanter. (L. *flexum*, to bend, and *femur*.)

- Flexuous, Flexuose.**—Almost zig-zag; winding; wavering; curving. (L. *flexum*, to bend.)
- Floats.**—Four respiratory sacs situated, two on the thorax and two on the seventh segment of Culicidæ (*Corethra*) larvæ, which as they mature become filled with air, and serve as floats. (Theobald.) (A.S. *flotian*.)
- Flocculus.**—A hairy or bristly appendage of the posterior apophysis in a few of the Hymenoptera. (L. *floccus*, a flock, of wool.)
- Fluviatile.**—Inhabiting rivers, as the larvæ of many insects. (L. *fluvialis*, pertaining to rivers.)
- Fœtid Glands.**—(Orthoptera). Small sac-like glands the walls of which possess numerous hypodermal and glandular cells, provided with a passage through which the scent-fluid is forced by the pressure exerted by the dermal muscles. (Vosseler.) (L. *fœteo*, to stink.)
- Foliaceous.**—Very thin, scarcely thicker than a leaf; leaf-like in appearance. (L. *folium*, a leaf.)
- Foliolæ.**—Leaf-like appendages of the telum. (L. *folium*.)
- Follicle.**—A small sac or bag. (L. *folliculus*.)
- Follicular.**—Possessing or made up of follicles. (L. *folliculus*.)
- Folliculus.**—(L. *follis*, a little bag.) See Incunabulum.
- Food-reservoir.**—The “Sucking stomach.” (A.S. *foda*, and F. *reservoir*.)

- “**Foot.**”—The last part of the leg, the tarsus.
(M.E. *foot*, *foot*, pl. *fet*, *feet*. A.S. *fol*, pl, *fet*.)
See Tarsus.
- Foramen.**—The orifice in the abdomen, through which the funiculus passes. (L. *foro*, to bore.)
- Foramen occipitale.**—(L. *foro*, and *occipit.*) See Occipital foramen.
- Forceps.**—Pinchers, organs for holding—the actual function is unknown. (L. *forceps*, pinchers.)
- Forcipated.**—Resembling forceps; formed like a pair of pincers; to open and close like forceps. (From L. *forceps*.)
- Fore-stomach.**—The Proventriculus. (A.S. *fore*, before, and Gr. *stomachos*.)
- Forfex.**—A pair of anal organs which open and shut transversely, and cross each other, like scissors. (L. *forfex*, a pair of shears.)
- Form.**—Shape, form. (L. *forma*.)
- Fornicate.**—Concave within and convex without. (L. *fornicatus*, from *fornix*, a vault.)
- Fossorial.**—Adapted for digging, burrowing. (L. *fossio*, *onis*, a digging.)
- Fossulate.**—Furnished with fossulets; having long and narrow trench-like depressions. (L. *fossa*, *ae*, a ditch.)
- Fossulet.**—A somewhat long and narrow depression. (L. *fossa*.)
- Fovea, Foveolet.**—A large round depression on the surface. (L.)

Foveate, Foveolate.—Having deep depressions which narrow towards the bottom. Possessed of foveæ. (L. *fovea*.)

Fractæ.—(Antennæ.) Broken. (L. *fractus*, from *frango*, to break.) See Geniculate.

Fractate.—(Antennæ.) Having one joint, usually the second from the base, very long, and the remaining joints attached to it at an angle. Bent with an elbow as if broken. (L. *fractus*.)

Free.—(Head.) When it is distinctly visible, never covered by the thorax. (M.E. *fre*; A.S. *freo*, †, Ger. *frei*.)

Free.—Unrestrained in articulated movement, not soldered at the point of contact. (E., M.E. *fre*; A.S. *freo*, †, Ger. *frei*.)

Free Pupæ.—Pupæ which have the appendages and limbs free, and not fused to the outer case; for example, pupæ of the beetles, lace-wing flies, caddis-flies, ants, wasps, and bees. (M.E. *fre*, and L. *pupa*.)

Frons.—The front, forehead, or brow; that portion of the head between the posterior margin of the clypeus between the eyes, to where the head commences to be flattened out. That part of the facies which lies behind the postnasus and usually between the posterior part of the eyes. The part of the skull between the orbits and the vertex. (L. *frons*, *frontis*, the forehead.)

Front.—The fore-face, bounded by the eyes and the vertex, and often beneath by the epistoma or the clypeus. (L. *frontis*.)

Frontal. (*ant. frontalis*).—(Antennæ.) Inserted directly upon the brow. (L. *frontale*—front stem of *frons*.)

Frontal area.—A small triangular space, marked off by sutural lines, lying just above the clypeus in the Hymenoptera Aculeata (ants).

Frontal fissure.—The arcuate impressed line, seen in Diptera, immediately above the antennæ, continuing over the face to the border of the mouth.

Frontal ganglion.—The three-cornered nerve-centre of the three nerves running from the subœsophageal ganglion round the œsophagus and uniting above it.

Frontal lunule.—A small crescent-shaped piece above the antennæ, which in the case of *Cyclorrhapha* is typically characteristic.

Frontal nerve.—Arises from the anterior border of the frontal ganglion and extends into the clypeus, where it bifurcates.

Frontal stripe.—Sometimes termed *vitta frontalis*; the coloured stripe noticeable in some Diptera, on the middle of the frons.

Frontal suture.—The suture separating the frontal lunule from that part of the head immediately above it. Frequently the suture extends down on either side to as far as the mouth.

Fulcrum.—The second part, constituting the legs of the Hemiptera, it inosculates anteriorly with the Coxa, and posteriorly with the thigh or Femur. (Douglas and Scott.) (L. a prop.)

Fulcrum.—The tongue-bone. (L. *fulcrum*, a prop.)
See Os hyoideum.

Fulgid.—A bright, fiery red colour. (From L. *fulgidus*, shining, glittering.)

Fuliginosus.—Soot-like in colour. (L. *fuligo*, soot.)

Fulvescent.—Shining-brown; of tawny lustre.
(From L. *fulvus*.)

Fulvid, Fulvous.—Tawny; of a tawny yellow; brownish-yellow, the yellow prevailing. (L. *fulvus*.)

Fulvo-æneous.—Brazen; with a tinge of brownish yellow; (L. *fulvus*, tawny, and *æneus*, brazen.)

Fumeus.—The colour of smoke. (L.)

Funiculus.—(Antennæ.) The joint of the antennæ between the Scape and the Club. (L. *funiculus*, a cord.)

Funiculus.—A small cartilaginous cord passing through a minute orifice of the post-forænum just above the point where the petiolus is fixed to an opposite hole above it, which enables the insect to elevate or depress the abdomen. (L.)

Furcate, Furcated.—Dividing into two. Forked. (L. *furca*, a fork.)

Furred.—When short decumbent hairs thickly cover any space of the surface.—See Comate for contra-distinction. (F.—O.L.G.) M.E. *forre*.—O.F. *forre*, *fuerre*, a sheath, a case, whence the verb *forrer*, to line with *fur*.)

Fusco-testaceous.—Dull reddish brown on a hard background. (L. *fuscus*, swarthy, and *testa*, any earthen vessel; tile, brick; shell, animal shell, etc.)

Fuscous.—Brown or tawny-brown; the colour of tanned leather; the colour of the otter; of a dark colour. (L. *fuscus*, swarthy.)

Fusi.—The *spinners*; organs consisting of two retractile pieces, issuing from the mammulæ, and rendering threads. (L. *fusus*, a spindle.)

Fusiform, Fusiformate.—Spindle-shaped, broadest portion at the middle and narrowing towards the two points. (L. *fusus*, a spindle, and *forma*, shape.)

Galea.—The outer portion of the endopodite. (L. *galea*, a helmet.) See Lobus Superior.

Galeate.—Situating on the dorsal side of the maxillæ. (L. *galea*.) See Endopodite.

Galla.—A plant gall. (L. *galla*, a gall.)

Galls.—Morbid enlargements of the affected parts of a plant, due to parasitic agency. They vary enormously in form and colour. (L. *galla*, a gall-nut.)

Gangliform, Ganglioform.—Having the form of ganglion. (L. *ganglion* and *forma*.)

Ganglion.—A nerve centre; a healthy enlargement of a nerve. (L.)

Ganglion of Median nerve.—[See Median nerve.]

Ganglion ventriculare.—The unpaired ganglion, situated in front of the proventriculus. The number of these ganglia varies in different orders of insects.

Ganglionic Plate.—The Periopticon.

Gasterotheca.—The abdomen-case, that portion of the theca enclosing the abdomen. (Gr. *gaster*, the belly, and *theca*, a case.)

Gastric.—Belonging to the stomach. (Gr. *gaster*.)

Gastro-ileal folds.—Twelve “dark spots” lying at the anterior end of the ileum; the boundary separating the intestine from the chylic stomach, and forming a peculiar valve. (Minot.) (From Gr. *gaster*, *ileo*, and Dan. *folde*.)

Gastrula.—The stage of the egg formed by the presence of the primitive streak, the invaginated blastoderm, the ectoderm and the endoblast. (From Gr. *gaster*.)

Gastrula stage.—(Embryol.) The stage of embryology, when the primitive streak invaginates to allow of the formation of the inner layer. (Gr. *gaster*.)

Geminate.—Arranged in pairs; twin; disposed in pairs from the same point. (L. *geminus*, twin.)

Geminous.—When spots, tubercles, puncta, etc., are geminate. (L. *geminus*.)

Gemmiparous.—A sexual generation by new individuals, arising as buds from the body of the parent. (L. *geminus*, and *pario*, to bring forth.)

- Gena.**—The cheek, the lateral part of the head just below the eyes. (L.)
- Geniculate.**—Elbowed, or kneed; having the joint a little bent. (L. *genu*, the knee.)
- Genitalia.**—The extended organs of reproduction. (L. *genitalia*, genitals.)
- Geometræ.**—Larvæ which alternately elevate and straighten the middle of the body when walking, as those constituting the genus *Geometra*; opposed to *Rectigrade*. (L. *geometra*, a land measurer.)
- Germarium.**—The terminal portion of the ovariole. (F. *germe*, a young shoot, a sprout, from L. *germen*.)
- Germinal vesicle.**—The female pronucleus containing the germinal spot. (L. *germino*, germinate, and *versicula*, a vesicle.)
- Gestation.**—The period during which the female is maturing the ova or embryos. (L. *gesto*, to carry.)
- Gibbose, Gibbous.**—Hump-backed, very convex. A term applied to the surface when it presents one or more large elevations. (L. *gibbus*, a hump.)
- Gills.**—(Scand.) M.E. *gille*.—Dan. *giælle*, Swed. *gal*, a gill.) See *Tracheal gills*.
- Ginglymus.**—Hinge-like articulation; hinges. (Gr. *ginglymus*, a mortice-joint.)

Gizzard.—The proventriculus, the muscular stomach designed for crushing the food. (F.—L.) M.E. *giser* the (*d* being added).—O.F. *gegier*, *jugier*, *juisier*. (F. *gésier*).—L. *gigerium*, only in pl. *gigeria*. (Late L. *gizeria*), cooked entrails of poultry. The Stomach. See Stomach and Proventriculus.

Glabrate.—Brilliantly glossy. (From L. *glaber*, smooth.)

Glabrous.—Smooth, hairless, and without punctures and sculpture. (From L. *glaber*.)

Glassotheca.—The proboscis-case; that portion of the theca enclosing the protruding proboscis often seen in the pupæ of Lepidoptera; the tongue-case. (A.S. *glæs*, and Gr. *theca*, a case.)

Glaucous.—Grey; bluish-green; resembling the colour of the sea. (L. *glaucus*, grey; blue; sea-green.)

Globate, Globose.—(Egg.) Perfectly globose, round in all directions; spherical. (L. *globus*, sphere, ball, etc.)

Glochis.—A barbed point. (Gr.)

Glossæ.—The first lobes of the second maxillæ or labium. (Taken from L. *glossa*, a word needing explanation; from Gr. the tongue; the root is uncertain.)

Gonapophyses.—Processes situated in the genital pouch of the female insect, which act as forceps for grasping the egg-capsule. (From Gr. *gone*, seed, *physis*, a genital power.)

Gonytheca.—The knee-pan ; a cavity situated on the underside of the apex of the thigh, to receive the base of the tibia. (Probably from the Idg. related bases, which are *genu* (as in L.), *gonu* (as in Gr.), *gneu* (whence Teut. *kneu*), the knee, and Gr. *theca*, a case.)

Graminaceous.—Having the colour of grass. (L. *gramen*, grass.)

Graminivorus.—Subsisting on grass, or vegetable food. (L. *gramen*, and *voro*, to eat.)

Granule.—A very minute elevation. (L. *granulus*.)

Granular, Granulate.—With small rounded-off elevations. (From L. *granulus*.)

Gressorial—Adapted for walking. (L. modified L. *gressivus*, from L. *gressus*, stepping.)

Grinding teeth.—See *Dentes molares*. (E.) A.S. *grindan*, p.t. *grand*, p.part. *grunden*. Allied to L. *frondere*, to gnash ; and L. *dens*, a tooth.)

Griseus.—Of a grey colour ; grizzled. (Fr. *gris*, gray.)

Grossus.—Large, great in size, or bulk ; wide ; extensive ; abundant ; ample. (Fr. *gros*, from L. *crassus*, thick.)

Guarded.—(Pupæ.) See *Pupæ costodiatae*. (From Fr. *garder*, and *ward*.)

Gula.—The underside of the skull. The throat. (L. *gula*, the throat.)

Gular.—Pertaining to the throat. (L. *gula*.)

Gullet.—The œsophagus, that part of the alimentary canal which approaches the head, and the external opening of which is the throat, or pharynx. See *Ventricosus*, *Compositus*, and *Simple*. (L. *gula*, the throat.)

Gustatory nerves.—Two thread-like nerves projecting from the anterior border of the sub-œsophageal ganglion, which innervate the region of the salivary glands. (Krauss.) (L. *gusto*, to taste.)

Gutta.—A light spot upon a light ground, *viz.*, white upon yellow; a roundish dot of colour, intermediate in size between an atom and a macula. (L. *gutta*, a spot.)

Guttate.—Possessing guttæ; painted with guttæ. (L. *gutta*.)

Gymnopteræ.—Membranaceous and transparent wings without scales. (Gr. *gymno*, naked, and *pteron*, a wing.)

Gyri cerebrales.—(Gr. *gyros*, a ring; and *cerebrum*.)
See *Calyces*.

Habit, Habitus.—The aspect; the general appearance. Used comparatively to express a resemblance in general appearance, apart from more important markings derived from organisation. (L. *habitus*.)

Habitat, Habitation.—The natural abode or locality. (L. *habito*, to dwell.)

Hair-fields.—Spinules. (A.S. *har*, *hér*.)

Hair-scales.—Spinules.

Halberd-shaped.—Triangular, hollowed out at the base and sides. (Gr. *helm*, and *barte*, an axe.)

Halteres.—Two small knobbed appendages rising from each side of the thorax in the order Diptera just where the posterior pair of wings would arise were they present, and to which they are analogous. They tend to balance the insect in flight, and are sometimes termed the balancers, or poisers, or malleoli. (Gr. *halteres*, weights held in the hand to give impetus whilst leaping; Gr. *hallomai*, to leap.)

Hamule.—A small hook; having the end hooked. (L. *hamus*, hook.)

Hamuli.—(L. *hamus*.) See Hooklets.

Hamus.—“The Hook”; a hook fixed to the base of the costal nerve on the underside of the wings. (L.)

Harpes.—Teeth and ridges situated on the inner surface of the claspers. (Gr. *harpe*, a scimitar.)

Hastate.—Halberd-shaped; triangular hollowed out at the base and sides with the posterior angles spreading. (L. *hasta*, a spear.)

Hastate pupil.—When the *pupil* of an *eye of colour* is a halberd-shaped spot of colour. (L. *hasta*, and *pupilla*.)

Hatching spines.—(Embryol.) A low conical spine, for the purpose of rupturing the egg-chorion, situated on the embryonal cuticle of

the head in advanced embryo. (Strongylosoma) Metschnikoff. These structures vary in situation and shape according to the insect. (M.E. *hacchen*, + Swed. *hacka*, to hatch; and L. *spina*.)

Haustellate.—Pertaining to the haustellum; suctorial. (L. *haustum*, to draw up.)

Haustellum.—A suctorial mouth, including the valvula, cultelli and scapella. (L. *haustum*, to drink, swallow, etc.)

“**Heart.**”—A straight chambered tube running along the middle line of the thorax and abdomen under the chitinous covering. (A.S. *hoerte*.)

Heels.—The term Leach uses for the spinulæ. (A.S. *hela*.)

Hemelytra.—The upper organs of flight, when they are corneous or coriaceous at the base, and membranous at the apex. (Gr. *hemi*, half, and *elytron*, from *elyo*, to wrap up.)

Hemi.—A Greek prefix, signifying half.

Hemimetabolous.—The term given to insects which undergo an incomplete metamorphosis. (Gr. *hemi*, and *metabole*, change.)

Hemiptera.—An order or group of hexapoda. An order of insects with four wings, the upper being partly coriaceous, and partly membranous. (Gr. *hemi*, half, and *pteron*, a wing.)

Hemisphæricum.—Hemispherical. (Gr. *hemi*, and *sphaira*, a ball.) See Semiglobosum.

- Hepatic.**—The colour of liver; liver-brown.
(*L. hepaticus*, diseased in the liver.)
- Hepatic cæca.**—Convolute club-shaped diverticula.
(*Gr. hepar*, the liver, and *L. cæcus*.)
- Heteromerous.**—With the posterior tarsi composed of less joints than the anterior and intermediate ones. (*Gr. heteros*, another, and *meros*, a part.)
- Hexapoda.**—A class of the articulata, including all insects possessing six legs or feet. (*Gr. hex*, six, and *pous*, foot.)
- Hexapoda.**—Six legged. (*Gr. hex*, and *pous*.)
- Hexapodus.**—Provided with six legs.—(*Gr. hex* and *pous*.)
- Hieroglyphic.**—Painted with characters somewhat resembling hieroglyphics. (*Gr. hieros*, sacred, and *glypho*, to carve.)
- Hind-intestine.**—The tube lying between the mid-intestine (or stomach) and the outgrowths (urinary tubes) of the proctodæum. It is lined with a thick muscular layer. (*A.S. hinden*, at the back of; and *L. intestinum*.)
- Hirsute.**—Set with thick long hairs. (*L. hirsutus*, hairy.)
- Hirsutus.**—Covered with long shaggy hairs. (*L.*)
- Hirsutiuseculus.**—Somewhat hairy; somewhat hairy at the base. (*L. hirsutus*, and *culus*, the fundament.)
- Hispid.**—Set with short erect bristles. (*L. hispidus*, shaggy.)

Histology.—The science which treats of the finer structure of the body-tissues. (Gr. *histos*, a tissue, and *logos*, science.)

Histolysis.—The process of histology. (Gr. *histo*, and *lyo*.)

Hoary.—Grey, with the white prevailing; greyish-white, caused by very dense short hairs covering the surface. (A.S. *has*, hoarse, + Dan. *hæs*, Du. *heesch*.)

Hoary.—[See *Incanus*.] (A.S.)

Holometabolous.—The term given to insects which undergo a complete metamorphosis. (Gr. *holos*, whole, and *metabole*, change.)

Holopneustic.—The term given to the open or normal type of trachæal system. This type is distinguished by the presence and function of stigmata. (Gr. *holos*, whole, and *pneuma*, air.)

Holoptic.—Whole-eyed; perfect eyed; in the case of the *eye of colour*, it is holoptic when it is in a perfect state, *i.e.*, having one pupil surrounded by one ring of colour, and an Atmosphere. (Gr. *holos*, whole, and *optikos*, pertaining to the eye.)

Holosericeous.—Covered with thick set shining, short decumbent hairs, resembling satin in sheen. (This kind of pubescence has usually been denominated sericeous (*sericea*), but it certainly does not resemble silk, and is different from the sericeous splendour.) (Gr. *holos*, and L. *sericeus*, silken.)

Homogeneous.—Forming a complete and mutually related whole ; of the same kind ; possessing a uniform nature, principle, composition, or structure. (Gr. *homos*, the same, and *genos*, kind.)

Homotene.—Retaining the primitive form ; referring to those articulated animals with legs, that do not change their form with their vernantia, or skin-casting. (From Gr. *homos*, the same.)

Honey-dew.—The excretion of hypodermal unicellular glands which open into a modification of a pore-canal, the tubercles are an outgrowth of the cuticle. (A.S. *hunig* ; and *doew*.)

Hooklets. (*hamuli*).—Very minute hooks in the middle of the anterior margin of the wings by which the under-wing is made to work in unison with the upper one. (L. *hamus*, a hook.)

Horizontal.—Parallel with the horizon. (From Gr. *horos*, a boundary.)

Horizontal.—(Motion.) When it is from side to side. (Gr. *horos*.)

Horn.—A long process resembling a horn. (A.S. *horn* + Icel. Dan. Swed. Ger. *horn*.)

Humeral.—Relating to the humerus. (L. *humerus*.)

Humeral nerve or nervure. A transverse or cross nervure of the wing running from the costa to the sub-costa. (L. *humerus*.)

Humerus.—The shoulder ; the region of the exterior basal angle of the elytra. (Say). The anterior angles of the thorax in Diptera. (Meigen.) (L. the shoulder.)

Hyaline.—Transparent ; water-like in hue. (Gr. *hyalos*, glass.)

Hyaline.—Glossy. (Gr. *hyalos*.)

Hybrid.—The offspring of two different species. (L. *hybrida*.)

Hymenoptera.—A group of hexapoda, an order of insects, like the bee, having four membranous wings. (Gr. *hymen*, a membrane, and *pteron*, a wing.)

Hyper—A Greek prefix signifying over, beyond, or excess.

Hypermetamorphosis.—When an insect passes through more than the three normal stages of metamorphosis. To explain this the example of the larva of the Oil Beetle is taken :—This campodiform larva lives an active life on plants until it attaches itself to a bee, which carries it to the hive, where it feeds on her eggs. After casting the skin it becomes a short-legged grub, and feeds on the honey. Another change of skin leads to a third stage, in which no food is taken, the jaws being immovable, and the legs reduced to tubercles. A third moult is succeeded by the fourth and final larval condition ; the Oil Beetle grub being now a maggot resembling in appearance those of the bees, living and feeding on honey. (Gr. *hyper*, *metamorphosis*, a transformation.)

Hypistoma.—The hypopharynx. (Gr. *hypo*, and *stomoma*, the mouth.)

Hypo.—A Greek prefix signifying under, or beneath.

Hypoblast.—(Gr. *hypo*, and *blastos*, a sprout.)
See Endoderm.

Hypochordria.—Two portions of segments, one on each side; which in some genera (*Carabus*, Linn.) intervene between the first entire ventral segment, and the posterior part of the postpectus. (Gr. *hypo*, and *chorde*, a cord.)

Hypocrateriform.—Salver-shaped; in the form of a salver.

Hypodermal.—Pertaining to the hypodermis. (Gr. *hypo*, and *derma*, skin.)

Hypodermic.—Under the skin.—(Gr. *hypo*, and *derma*.)

Hypodermis.—The under skin. (Gr. *hypo*, under, and *derma*, the skin.)

Hypopharynx.—A structure of variable shape and form, originating, as a rule, just above the base of the labium and stretching down the labial groove, closing ventrally the slit-like opening of the labrum—epipharynx. It is attached to the interior surface of the labrum. (Gr. *hypo*, and *pharynx*.)

Hypopygium.—The last ventral segment of the abdomen. The male claspers for holding the female in copula (Loew.). (Gr. *hypo*, and *pygidium*.)

Hypostoma.—The term applied to the clypeus in Diptera. (Gr. *hypo*, and *stoma*, the mouth.)

Hypoptere.—Another term for the tegulæ. (Gr. *hypopteros*, winged.)

Hystolysis.—The decay and dissolution of the organic tissues and blood, it includes the numerous forms of retrograde metamorphosis and degeneration. The change of the organic tissues during pupation. (Gr. *histos*, and *lysis*, a parting from *lyo*, to loosen.)

Ileum.—The proximal end of the small intestine. (Gr. *eilo*, to roll.)

Imagal, Imaginal.—Pertaining to the imago. (L. *imago*.)

Imago.—The perfect state of the insect. (L. the image.)

Imaginal buds.—Rudiment-groups of cells from which arise the organs of the imago during pupation; and which may be seen in the larva. (From L. *imago*, and Du. *bot*, a bud.)

Imbricate.—Overlapping one another, like tiles on a roof. (L. *imbrex*, a gutter-tile, from *imber*, a shower.)

Imperfect.—Not complete or perfect; unfinished. (L. *im*, = *in*, not, and *perfectus*, finished.) See Incomplete metamorphosis.

Impression.—Punctuation; any marking upon the surface; an indentation; a depression. (L. *impressare*, from *imprimere*, to press upon.)

Impunctate.—Without punctuation.—(L. *in*, not, and *punctum*, to prick.)

In-.—A Latin prefix signifying in, into, on, not, etc.

Inaurate.—When striæ or other *impressed* parts have a metallic splendour. (L. *in*, and *aurum*, gold.)

Incanus.—White, with a small proportion of black; grey. (L. *incanus*, grey.)

Incased.—(Pupæ.) (L. *in*, and O.F. *casse*, L. *capsa*, a box, cover, L. *capere*, to hold.) See Pupæ folliculatæ.

Incised. (Incision.)—Cut into equal marginal segments. (L. *incisus*, p.p. of *incisere*, to cut into.)

Incisura axillaris.—(Wing.) The axillary incision which terminates the posterior angle towards the base of the wing. (L.)

Incisure.—A deep incision between the segments, when they recede from each other. (L. *incisus*.)

Incomplete metamorphosis.—When there is no quiescent or sealed-pupal state in the life history of an insect. When histolysis does not take place. (L. *in*, and *completus*, complete; and *metamorphosis*.)

Inconspicuous.—Not easily discernible. (L. *in*, *con*, and *specio*, to see.)

Incrassate, Incrassated.—Thickened. (L. *in*, and *crassus*, thick.)

Incrassate.—Having the margin rounded and swollen. Disproportionately thick in part. (L. *in*, and *crassus*.)

Incumbent.—(Wings.) Those wings, which, when the insect is at rest, cover the back of the abdomen horizontally. Resting against. One lying over the other. (L. *incumbo*, to lie down.)

Incunabulum.—Cocoon, the case in which the pupa reposes, and which has been artificially prepared by the larva. (From L. *incunabula*, cradle, birth-place, origin.)

Incurved.—Bowed inwards. (L. *incurvo*.)

Indurated.—Hardened. (L. *induro*, to harden.)

Indusium.—The membrane found between the serosa and the amnion. The case or covering of certain larvæ. (L. *indusium*, an undergarment.)

Inermis, Inermous.—Unarmed, destitute of striæ, spines, and all sharp processes. (L.)

Inferior (*antennæ inferiores*).—(Antennæ.) Placed beneath the head. (L. comparative of *inferus*, low.)

Inferior Lobe.—(L. *inferus*, and Gr. *lobos*.) See Lobus Inferior.

Inferior region (*regio inferior*).—(Wing.) (L. *inferus*, and region, from, L. *regio*.) See Costal region.

Inflated (*capitulum compositum*).—(Antennæ.) Having the knob of a capitate antenna in the form of a bladder. (L. *in*, and *flo*, to blow.)

- Inflected.**—Bent inwards at an angle. (L. *inflecto*, to curve.)
- Infra-anal flaps.**—The podical plates (Packard.) (L. *infra*, underneath, and *anus*.)
- Infra-anal lobe.**—A thick, conical, fleshy lobe, often ending in a hard, chitinous point, and situated directly beneath the vent. (Packard.)
- Infra-buccal cavity.**—A short compressed buccal tube, dilated ventrally to form a spheroidal sac, situated in the mouth of Ants, and used as a receptacle for the fine particles of food rasped off or picked up by the tongue. (L. *infra*, and *bucca*, the mouth.)
- Infrafract.**—Bent inwards abruptly, as if broken. (L. *in*, and *frango*, to break.)
- Infra-ocular** (*ant. infra-oculares*).—(Antennæ.) Inserted beneath the eyes. (L. *infra*, underneath, and *oculus*, an eye.)
- Infumated.**—Clouded, as if smoked; coloured like smoke. (L. *in*, and *fumus*, to smoke.)
- Infundibulate, Infundibuliforme.**—Having the shape of a funnel. (L. *infundibulum*, a funnel.)
- Infusate, Infuscated.**—Darkened, with a blackish tinge. (L. *in*, and *fuscus*, dark.)
- Ingluvies.**—The Crop. (L.)
- Ingurgitation.**—The act of swallowing. (L. *ingurgito*, to soak in.)
- Inner.**—Interior; nearer to the centre. (A.S. *innera*.)

Inner angle.—(Wing.) The angle situated at the junctions of the outer edge and the inner edge.

Inner edge.—(Wing.) The interior angle. The extreme border running from the inner angle to the insertion of the wing in the thorax.

Inner margin, Interior margin.—(Wing.) The margin which extends from the base to the posterior angle.

Inocular (*antennæ inoculares*).—(Antennæ.) When the eye surrounds the base of the antennæ. (L. *in*, and *oculus*, an eye.)

Inquiline.—A dweller in the nest of an alien species. Inquilines: the term given to those insects (species of *Cinipidæ*) which do not make galls, but deposit their eggs in galls already formed, and live in the gall tissues, killing the gall-maker as a rule. (L. *inquilinus*, a tenant.)

Insecta, Insect.—The class Hexapoda; articulated animals with a body composed of three *distinct* parts, the head, the thorax, and a segmented abdomen. (L. *in*, and *seco, sectum*, to cut.)

Insectivorous.—Subsisting on insects. (*Insect*, and L. *voro*, to devour.)

Insectum, Insecte, Insect.—The derivation of the terms from the two large incassated masses the thorax and the abdomen. (L. *insectum*, literally “a thing cut into,” *i.e.* nearly divided, from the shape.—L. *insectus*, past participle of *insecare*, is cut into.—L. *in*, into; *secare*, to cut.)

Inserted.—(Head). When it is partly, particularly the occiput, concealed, within the thorax. (L. *in*, and *sero*, *sertum*, to join.)

Insertio of Maxilla.—The lowest portion of the maxilla adjoining the head. (L. *in*, and *sero*, *sertum*, and *maxilla*, cheek-bone, chin.)

Insertio of Labium.—The lowest portion of the labium adjoining the head. (L. *in*, and *sero*, *sertum*, and *labium*, lip.)

Insertion Insertio.—The point of attachment of movable parts. (L. *in*, and *sero*, *sertum*, to join.)

Insertum.—(Head,) (L. *in*, and *sero*, *sertum*.)
See Inserted.

Instar.—The new stage after moulting, and casting of skin. (L. *instar*, image; form, figure, etc.)

Institia.—Striæ of equal breadth throughout.

Instrumenta cibaria.—The mouth parts. (L. *instrumentum*, and *cibarius*, of food.) See Partes oris.

Instrumenta cib. libera.—(L. *instrumentum*, *cibarius*, and *liber*, free.) See Instr. cib. mordentia.

Instrumenta masticandi.—The masticating organs, another name for Instr. cib. mordentia. (L. *instrumentum*, and from *mando*, to masticate.)

Instrumenta cibaria mordentia.—The biting organs; the Mandibles. (L. *instrumentum*, *cibarius*, of food, and from *mordeo*, to bite.)

Instrumenta cibaria suctoria.—The sucking mouth ; the haustellum. (L. *instrumentum*, *cibarius*, and *suctus*, sucking.)

Inter-.—A Latin prefix signifying among, or between.

Interior.—Within ; internal ; within any limits ; the opposite to *exterior* ; the inside. (L. *intra*, within.)

Interior edge, Inner edge.—(Wing.) The boundary of the inner margin.

Interior margin.—(Wings.) The inner margin.

Interior palpi.—The labial palpi.

Intermaxillaire.—The maxillary lobe. (L. *inter*, and *maxilla*, the jawbone, jaw.) See Lobus maxillæ.

Intermediate Area.—That part of the wing lying between the costal area, and the anal area. (L. *inter*, *medium*, and *area*.)

Internal Chiasma.—The chiasmatic fibres of the internal medullary mass.

Internal hairs” (?).—Internal hair-like bodies, arising from the fold of the tænidia and projecting into the lumen of the tracheæ. (Stokes.)

Hollow hair-like structures communicating with the tænidia from which they arise by an enlarged base, ending in a fine—sometimes bifid or trifid—point. (Packard.)

Internal Medullary Mass.—The opticon, which connects with the median part of the procerobrum by direct fibres to form the optic nerve or tract.

Internal maxillary palpi.—(L. *internus*, *maxilla*, and *palpi*.) See Palpi maxilliares interni.

Internal paramera.—The inner pair of genital appendages of the Male; they are closely applied to each other, and function as a penis.

Inter-ocular (*antennæ interoculares*).—(Antennæ.) Placed between both eyes. (L. *inter* and *oculus*.)

Interrupted.—Suddenly stopped; broken; intermitted. (L. *inter*, and *ruptum*, to break.)

Interstices.—Spaces between striæ, or rows of punctures on the elytra. Spaces between things closely set. (L. *inter*, and *status*, a position.)

Interstitial line.—The longitudinal space which intervenes between two striæ of the elytra. (L. *inter*, and *status*.)

Intervals.—Spaces between the striæ, or rows of punctures on the head and thorax. (L. *inter*, and *valum*, a rampart.)

Interventricular valvule.—A minute valve working in conjunction with the auriculo-ventricular opening of the Dorsal vessel. (L. *inter*, *ventriculus* and *valva*.)

Intestina parva.—The small intestine. [See Intestines.] (L. *intus*, within, and *parvus*, small.)

Intestines.—A tube uniting with the stomach, and consisting of two portions, the small intestine or *intestina parva*, and the terminal intestine, or *rectum*. They are never subject to the convolutions so general in vertebrata. (There are several long tortuous filiform appendages originating from the stomach, or near its union with the intestines, which are said to be bile vessels corresponding with the liver of vertebrata.) (F. *intestin*, from L. *intestinus*, inwards, from *intus*, within.)

Intima.—The endotrachea.

Intorted.—Turned or twisted inwards. (L. *in*, and *torqueo*, to twist.)

Intricate.—When elevations are placed irregularly and close together, or involved, or complicated. (L. *in*, and *tricæ*, hindrance.)

Intro.—A Latin prefix signifying to, within.

Introrsum.—(Direction). Inwards; introrse, turned inwards. (L.)

Invertebral, Invertebrate.—Destitute of the vertebral or spinal column. (L. *in*, and *vertebra*, a joint.)

Involuted.—Rolled inwards spirally. (L. *involvero*, to roll to, or upon.)

Involvulus.—A caterpillar that wraps itself in leaves. (L.)

Iridescent.—Exhibiting prismatic colours, like those of the rainbow. (L.—Gr. L, *iris*—Gr. *iris*, *iridis*, the rainbow. **Der.** *irid-esc-ent*, *irid-ium*; from *irid-*, stem of *iris*.)

Iridiculous.—Reflecting prismatic hues, iridescent. (Gr. *iris*, and L. *color*.)

Iris.—The circle of colour which encloses the *pupil* of an *eye of colour*. (Gr. *iris*, *iridis*, the rainbow.)

Iris tapetum.—[See Pigment.]

Irregular (*irregulares*).—(Antennæ). Having all the joints different in shape. (L. *in*, and *regularis*, according to rule.)

Irrorate, Irrorated.—Freckled; covered with atoms. (L. *irroro*, *are*, to bedew, drop upon.)

Islet.—A spot of different colour, included in a *plaga*, or *macula*. (Fr. *île*, from L. *insula*.)

Johnstonian organ.—A peculiar organ existing in the second antennal joint, and consisting of a number of sensillæ and scolopal bodies; the former being stretched through the cavity of this joint and attached by the distal ends to the articulatory membranes of the second and third joints, while the proximal ends are innervated by the antennal nerve.

Jubate.—Fringed with long pendent hairs; ex. the intermediate legs of the male of *Anthophora retusa*. (L. *juba*, *æ*, mane, hair, tuft, crest.)

Jugulum.—The throat, extending from the orifice of the mouth to the neck, and comprises the whole of the middle portion of the lower-head. (L. *jugulum*, the throat.) See Gular, and Basilaire.

Justa.—In composition indicates near, as justa-ocular—situated near the eye. (L. *juxta*, near.)

Justa-ocular.—Situated near the eye. (L. *juxta*, and *oculus*.)

Labella.—Liplets; a pair of tumid lobes, often corrugated and capable of tension and relaxation, which terminate the theca. (L. *labium*, lip.)

Labellum.—The lower lip, the labium. (L. a lip.)

Labial.—Pertaining to the lips.—(L. *labium*.)

Labial nerves.—[See *Nervi labii*.]

Labial palpi, Labipalpi.—Jointed feelers borne by the labium. (L. *labium*, and *palpare*, *palpari*, to feel.)

Labium.—The underlip, which is that organ that assists in the closing of the orifice of the mouth from below. It is formed by the second maxillæ fusing together, and consists of two parts, the mentum and the lingula. (L. the lip.)

Labium-hypopharynx.—In the male *Anopheles* (*A. maculipennis*) the hypopharynx is fused with the labium, hence the term.

Labium superius.—(L. *labium* and *supero* above.)
See Labrum.

Labrum.—The upper lip, a somewhat convex corneous plate which is united posteriorly by a membranous hinge with the clypeus. (L.)

Labrum-epipharynx.—In the mouth parts of the mosquito, some anatomists maintain that the labrum and epipharynx are combined, and the term is used by those believing in this theory. The term used to differentiate between the epipharynx of Diptera and the double organ of Lepidoptera.

Lacinia.—The inner portion of the endopodite; the blade of the maxilla, being the fourth, or apical portion. (L. the lappet.) See Blade.

Laciniaë.—The second pair of appendages comprising with the volsellæ, the *median pair* of genital appendages. (L. the lappets.)

Laciniaë Exteriores.—Two elongate, flattened or concave biarticulate valves situated on the tongues of the members of the family Apidæ, and which support the labial palpi. They are distinguished from the labial palpi by being flat instead of cylindrical. (L.)

Laciniaë Interiores.—Two inarticulate membranaceous valves, which embrace the tongue at its entrance into the tube, seen in the family Apidæ. (L.)

Laciniate.—Divided into stripes. (L. *lacinia*.)

Lacinated.—Cut into irregular segments ; jagged.
(L. *lacinia*.)

Lactescent.—Yielding or secreting a milky fluid.
(L. *lactescens*, from *lac*, milk.)

Lacteus.—Of a shining white or milky colour.
(L. *lac*, milk.)

Lacuna.—A pit, a gap, a void space. (L.)

Lacunose.—Having a few scattered, irregular, broadish, but shallow excavations ; furrowed or pitted. (L. *lacuna*, a pit.)

Lactus.—Very bright in colour. (Evidently from L. *laetus*, bright.)

Lageniform.—Bottle-shaped in form ; bellying out and then ending in a narrow neck. (L. *lagena*, a bottle, and *form*.)

Lagenoid.—Flask-shaped. (L. *lagena*.)

Lamellatæ.—(Antennæ.) Having only the apical portion flabellate. (L. *lamella*, a thin plate or scale.) See Lamina.

Lamellate, Laminæ.—Plated, sheet or leaf-like ; composed or covered with laminæ. (L. *lamella*, plate.)

Lamelliform.—Having the form of a plate, leaf or scale. (L. *lamella*, and *form*.)

Lamina-æ, Lamella.—a thin flat plate or scale.
(L. a plate, or scale.)

Lamina supra-analis.—The term Haase applies to the suranal plate. (L.)

Laminae.—The two corneous plates which are laterally affixed to the mouth of *Pulex*. (L. *lamina*.)

Lanate.—Covered with fine, very long, flexible and rather curling hairs, resembling *wool*; wool-like. (L. *lana*, wool.)

Lanceolate.—Straight, flat, and decreasing to a point; lance-like; gradually tapering to the outer extremity. (L. *lancea*, a lance.)

Laniarii.—Canine-teeth; very sharp, usually long conical teeth. (L. *lanio*, to tear.)

Lanuginosus, Lanuginose.—Covered with a thick *down*, or fine soft hair. (L. *lana*.)

Lanuginous.—Having long curled hairs. (L. *lana*.)

Large Intestine.—The tube immediately between the small intestine (ileum) and the colon (or rectum.) (L. *largus*, great, and intestine.)

Larva, -æ.—An insect after issuing from the egg; the second stage of an insect's life; the caterpillar stage (the term "caterpillar" is generally applied to the larvæ of butterflies and moths). (L. a mask.)

Larvæ aculeatæ.—Larvæ possessing dense hair, which is fur-like in appearance. (L. *larva*, æ, and *aculeatus*.)

Larvæ cornutæ.—Larvæ possessing fleshy horns or processes. (L. *larvæ*, and *cornu*, a horn.)

Larvæ furciferæ.—Larvæ possessing a furcate process, the branches of which are pierced, so that the larvæ have the faculty of protruding slender threads through these tubes for the purpose—as is supposed—of scaring inimical ichneumons. (L. *larvæ*, and *furca*, a fork, and *fero*, to bear.)

Larvæ ursinæ.—Hirsute caterpillars, which are completely clothed with long hairs and bristles, and which, from their stiffness and sharp points will often cause an unpleasant inflammation upon the skin. (L. *larvæ*, and *ursus*, a bear.)

Larval.—Pertaining to the larva.—(L. *larva*.)

Larvated.—Masked. (L. *larva*.)

Larviparous.—Bringing forth larvæ.—(L. *larva*, and *parous*, from *pario*, to bring forth.)

Laterad.—An abbreviated form of laterally, or lateral.

Lateral.—Pertaining to the side. (L. *latus*, *lateris*, a side.)

Lateral Sympathetic System.—A pair of small ganglia situated one on each side of the œsophagus. The nerves are small and confined to the dorsal and lateral portions of the anterior region of the œsophagus.

Latericius.—Resembling bricks in colour. (L. consisting of brick.)

Lateritius.—Brick-red in colour. (L. *laterculus*, a brick.)

Latticed.—Cancelled. (Fr. *lattis*, lath-work.)

Leg.—One of the six chief organs of locomotion, arising from the segments of the thorax, and which are made up of four main portions, the coxa, femur, tibia, and tarsus. The tibia (Say). (Icel. *leggr*, a leg, a hollow bone.)

Lenticular.—Lens-shaped. The *horizontal* section is circular, and the *vertical* lanceolate; resembling a lentil in shape; having the form of a double-convex lense. (L. *lens*, a lentil.)

Lenticulate.—Having the opposite sides convex; meeting in a sharp point. (L. *lens*.)

Lenticulate.—(Egg.) Depressed, circular, and frequently ribbed. (L. *lens*.)

Lepidoptera.—A group of Hexapoda; an order of insects, including butterflies and moths, which possess four wings, covered with minute, powd'er-like scales. (Gr. *lepis*, a scale, and *pteron*, a wing.)

Leucocytes.—The blood corpuscles; they vary considerably in shape, from oval to round, but they are usually elongate, with a rounded nucleus. (Packard.) The originator of the name was Robin, who applied it to the lymph corpuscles of vertebrates. (Gr. *leukos*, white, and *kutos*, a hollow, a vessel.)

Levigate.—Smooth surfaced, free from elevations or depressions of any kind. (L. *lævis*, smooth, *ago*, to make.)

Levigate, Levigatus, Levis.—Possessing a smooth surface. (L. *lævis*, and *ago*.)

Liberum.—(Head.) (L. *liber*, free.) See Free.

Ligneous, Ligniform.—Wood-like, unelastic in substance. (L. *lignum*, wood.)

Lignivorous.—Feeding on wood. (L. *lignum*, wood, and *voro*, to devour.)

Ligula.—The Lingula. (Saunders.) (L. *lingua*.)

Lilaceus.—The colour of lilac, or lilies. (L. *lilium*, a lily.)

Lilacinous.—Lilac colour; like violaceous, only duller and tinged with red. (L. *lilium*.)

Limb.—(Superficies.) The circumference; the edge or border. (L. *limbus*, a border.)

Limbate.—When one colour is surrounded by a margin of a different colour; bordered. (L. *limbus*.)

Limbus.—The border surrounding the disc. (L. a border.)

Line.—A very slight, generally straight, but also sometimes bent, different coloured stripe. (L. *linea*, a string of flax, from *linum*, flax.)

Linear.—Having the lateral margins very close together, and parallel throughout. (L. *linea*.)

Lineate, Lineated, Lineatus.—With longitudinal stripes; marked longitudinally with depressed parallel lines. (L. *linea*.)

Lineate, Lineatus.—Raised lines on the surface
Provided with line-like marks.—(L. *linea*.)

Lingua, Lingula.—The endopodites together; the tongue; the second piece constituting the labium, it reposes internally upon the mentum. It is generally a more or less fleshy organ, which frequently protrudes beyond the anterior margin of the mentum, in which case the exterior inferior side is horny (see Os hyoideum). A capillary instrument between the lancets of an haustellum. Lingula, the apical portion of the labium. (L. *lingua*, the tongue.)

Lingua Spiralis.—The tongue of those insects constituting the Lepidoptera. (L. *lingua*, and *spiro* ?) See Spiral Tongue.

Linguiform.—Having the form or shape of a tongue. (L. *lingua*, and *form*.)

Literate.—Ornamented with characters resembling letters. (L. *litera*, a letter.)

Litura, -æ.—An indistinct spot, paler at its margins, generally of colour. Having the appearance of being blotted. (L. *litura*, a blot; indistinct.)

Liturate.—Possessing lituræ. (L.)

Lividus.—Black and blue; of a lead colour; discoloured; the colour of liver. (L.)

Lobate.—Having the margin divided by deep undulating and successive incisions. (Gr. *lobos*, lobe of the ear.)

Lobate.—Divided to the middle into parts with convex margins, which recede from each other. (Gr. *lobos*.)

Lobes.—The parts of an organ separated one from another by a more or less deep division. (F.—Low L.—Gr. Fr. *lobe*.—Late L. *lobus*.—*lobos*, a lobe of the ear or liver.)

Lobes, Lobi.—The *lobes*, the parts of the maxilla above the palpus. They include the *lobus superior*, *lobus inferior*, and the unguis. (Gr. *lobos*.)

Lobes, Lobuli.—Rounded portions of the base of the wing. (Gr. *lobos*.)

Lobus maxillæ.*—The maxillary lobe, the fourth piece constituting the maxilla, it is generally completely horny, and hooked, its interior margin concave, or stalked; but it is varying in structure according to the genealogical position of the insect. (Gr. *lobos*, and L. *maxilla*.)

Lobus Inferior.—The lower-lobe. The lower lobe of the maxilla, covered by the lobus superior. (Gr. *lobos*, and L. comparative of *inferus*, low.)

Lobus Superior.—The upper lobe.† The outer lobe of the maxilla, incumbent on the inner one. (Gr. *lobos*, and L. comparative of *superus*, high, from *super*.)

* Intermaxillaire according to Straus.

† It is called the Galea by Fabricius.

- Longiores.**—(Antennæ.) The term is used when the antennæ are longer than the body. (L. *longus*, long.)
- Longissimæ.**—(Antennæ.) The term is used when the antennæ are very much longer than the body. (L. *longus*.)
- Longipennate.**—With long wings. (L. *longus*, and *penna*, a feather.)
- Longitudinal.**—Running lengthwise ; the direction of the longest diameter. (L. *longitudo*, from *longus*.)
- Longitudinal Sternæ.**—Muscles stretched lengthwise along the lower wall of the abdomen, from the front edge of the second sternite to the front edge of the seventh. (L. *longus*, and *sternum*, breast-bone.)
- Longitudinal Tergæ.**—Muscles beneath the upper wall of the abdomen, each set connecting with the front edge of a segment with the front edge of that next behind. (L. *longus*, and *tergum*, the back.)
- Loopers.**—The larvæ of *Geometridæ*, called loopers because they form a loop-like position by alternately elevating and straightening the body while walknig. (Gael, *lub*, a bow.)
- Lora.**—A corneous angular machine observable in the mouth of some insects, upon the intermediate angle of which the mentum sits, and on the lateral ones the cardines of the maxillæ ; and by means of which the trophi are pushed forward or retracted. (From L. *lorum*, a thong.)

Lozenged.—Being similar in shape to a lozenge ; having two opposite angles acute and two obtuse, forming a quadrangular figure ; in the form of a rhombus. (F. Formerly *losenge*, esp. a shield of a diamond shape [in heraldry]—O.F. *losenge*, *lozenge* [F. *losange*], a lozenge. Origin disputed ; probably from O.F. *lauze*, a flat stone.)

Lubricous.—Slippery as if lubricated ; smooth, of a shiny smoothness. (L. *lubricus*, slippery.)

Lucidate, Lucidus.—Shining ; mirror-like in appearance ; bright ; clear ; radiant. (L. *lux*, *lucis*, light.)

Lumen.—The enclosed space. **Lumen** of the **tubes**, the space enclosed by the tracheal tubes. (L. space for admission of light.)

Lunare, Lunate.—In the form of a half-moon ; crescent-shaped. (L. *luna*, the moon.)

Lunulate.—Crescent-shaped ; like the new moon in shape. (L. *lunula*.)

Lunule, Lunulet.—A crescent-shaped spot or mark of a different colour from the rest. (L. *lunula*, a little moon, or crescent.)

Luridus.—Yellowy-brown ; pale in colour, even resembling a ghastly hue. (L. pale ; yellowish.)

Luteous.—Light in colour ; of a brownish-yellow or clay colour ; yellow, like the yolk of an egg. (L. *luteus*, yellowish ; gold-coloured ; saffron.)

Lutose.—Apparently or absolutely covered with dirt. (Many beetles that live in clay soil are always thus covered, for example the species of the genera *Arida*, *Meleus variolosus*.) (L. *luto*, *are*, to besmear.)

Lutosus.—The colour of yellow-clay. (L. *luteus*.)

Lyrate.—Lyre-shaped; cut into several transverse segments, and gradually enlarging towards the extremity. (L. *lyra*, a lyre.)

Macrolabia.—The term applied to the longer forms of forceps of the Forficulidæ (Earwigs) when these organs are of variable length. (Burr.) (Gr. *mackros*, long, and L. *labia*, a lip [?]).

Macula.—A large angular spot, of a dark colour, upon a uniform surface. (L. a spot.)

Maculate.—Possessing maculæ. (L. *macula*.)

Macular fascia.—A fascia consisting of distinct spots. (L. *macula*, and *fascia*, a band.)

Maculate.—Possessing maculæ. (L. *macula*.)

Maerianum.—The segment of the postpectus situated one on each side behind the acetabulum and parapleurum; it supports the posterior legs (Say).

Magaritaceous.—(Splendour). Glossy white with changeable tints of purple, green, and blue. Like the splendour of pearls; like mother-of-pearl. (Gr. *margarites*, a pearl.)

Maggot.—The term applies to a grub when all trace of limbs has disappeared. (M.E. *magot*, *magat*, from Welsh *maceiad*, *macia*, a maggot; *magiaid*, grubs.)

Maggot.—The term applied to larvæ when all trace of limbs has disappeared.

Male pronucleus.—The nucleated head of the active sperm-cell. (Fr. *mâle*, from L. *masculus*, and *pro*, *nucleus*, a nut.)

Malpighian tubules.—Exceedingly fine glandular tubes for excretory purposes. Generally sixty to seventy in number, opening into the food canal where the stomach joins the small intestine. (Malpighi is the name of the celebrated Italian anatomist, the discoverer of the tubes, and L. *tubus*, a tube.)

Malleoli.—Halteres. (L. *malleolus*, a small hammer.)

Mammulæ.—Anal protuberances connected with the spinning of web. Ex. Araneidæ. (From L. *mammosus*, protuberant.)

Mandibles, Mandibulæ.—The biting jaws, which are two strong corneous bent hooks, their inner margin being more or less dentate; and which articulate with the genæ at their broad basis, and move by ginglymus opposed to each other like the blades of scissors. (L. *mando*, to chew.)

Mandibular.—Belonging to, or pertaining to the mandibles, or the biting mouth generally.

Mandibular Glands.—A well developed cluster of cells situated on each side of the head just in front of the optic ganglia. The ducts are grouped in bundles and open separately on to the cribellum of the mandibles.

Mandibular Nerves.—[See *Nervi mandibularum*.]

Mandibulate, Mandibulated.—Provided with biting jaws. (L. *mando*.)

Manducate.—Pertaining to the mandibles ; capable of biting. (L. *manduco*, to chew.)

Manitrunk, Manitruncus.—The anterior portion of the trunk bearing the anterior legs, and in which the head inosculates. It includes the prothorax and antepectus. (L. *manus*, the hand, and *truncus*.)

Manus.—The “ hand ” ; the articulated termination of the anterior legs. The anterior tarsi including the palma. (L. the hand.)

Marcescent.—Shrivelling ; decaying. (L. *marcescens*, from *marcesco*, to fade.)

Margin.—The outer edge. (L. *margo*.)

Marginal cells (*cellulæ marginales*).—The cells of the wing immediately beyond the *stigma*, towards the extreme point of the wing, they are generally two or three in number (L. *margo*, and *cella*).

Marginal Cellule.—[See *Radical cellule*.]

Margined.—Furnished with a distinctly pronounced outer edge.

Margo.—The margin. (L.)

Marmorate, Marmoraceous.—Marble-like in colour and marking; variegated like marble. (Gr. *marmaros*, marble.)

Marsupium.—The cradle-like pouch, formed by the anal plates of the Coccidæ (genus *Orthezia*) for carrying the young and eggs. (Gr. *mar-supion*, a bag.)

Mask.—A peculiar modification of the labium of the Dragon-fly-nymph. The structure is attached by its base to a point below the mouth, hiding the face (hence the term.) The function of the mask is to assist the insect to catch its prey. (Fr. *masque*.)

Masked.—(Pupæ.) (Fr. *masque*.) See Pupæ larvatæ.

Mastagia.—Two anal organs from which arise a retractile thread, seen in some larvæ, and with which they lash their sides, endeavouring to drive off Ichneumons. (Kirby and Spence.)

Maxillæ.—The under jaws, which in many respects resemble the mandibles, but are smaller, and more delicate in structure, consisting of four pieces. Jointed processes following the mandibles behind. (L. *maxilla*, the jaw, jaw-bone.)

Maxillæ lanceolatæ.—Lanceolate maxillæ. (L., and *lancea*, a lance.)

Maxillæ setosæ (*setæ rostri inferiores*).—Setosed maxillæ; maxillæ carrying bristles or hair. (L. and *seta*, a bristle.)

Maxillæ unguiculatæ.—(L., and *unguis*, a claw.)
See Unguiculate.

Maxillary.—Pertaining to the maxillæ.

Maxillary Glands.—Two groups of cells situated near the median plane of the head, above the buccal tube, and near the infra-buccal cavity.

Maxillary Lobes.—[See Lobus maxillæ.]

Maxillary Nerves.—[See Nervi maxillarum.]

Maxillary palp, pl. palpi ; Maxipalpi.—A five-jointed process carried on the outer edge of the distal end of the stipes.

Mayrian Furrow.—The larve Y-shaped groove which the mesonotum in some male ants presents when viewed from above.

Media.—The area lying between the cubitus and the radius of the wing. (L. *medius*, the middle.)

Median.—Central. (L. *medius*.)

Median.—(Wing).—A cross or radiating nervure of the wing. (L. *medius*.)

Median Nerve.—The small nerve constituting the superadded nervous system, and from which the respiratory nerves arise. It originates from the subœsophageal ganglion, and is comparatively short, in some instances being only an enlargement of the subœsophageal ganglion.*

* In these instances it is called by Brandt the ganglion of the median nerve.

Median Pair of genital appendages of the Ant, are composed of the volsellæ and the laciniaë, and are situated between the stipites and the internal paramera.

Median Segment.—The Propodeum.

Median Yoke-ridge.—(Embryol.) The free median space formed by an incomplete withdrawal of the mesadermal cells from the median line.

Medio-cubital Nerve.—A transverse or cross-nervure of the wing, connecting the medial and cubital systems. (L. *medius*, *cubitus*, a bend, and *neuron*.)

Medifurca.—A forked process of the anterior surface of the medipectus. (L. *medius*, and *furca*, a fork.)

Medipectus.—The underside of the anterior division of the alitruncus. (L. *medius*, and *pectus*, the breast.)

Meliphagus.—Honey-sucking. (Gr. *meli*, honey, and *phago*, to eat.)

Melissæus (Scent).—Balm-scented. (Gr. *melissa*, honey.)

Melliferous.—Producing honey. (L. *mel*, honey, and *fero*, to bear.)

Membrana.—The membranous parts of the hemelytra. (L., a membrane.)

Membrana vitelli.—The thin skin covering the yolk of the egg, and which lies immediately above the blastoderm. (L. *membrana*, and *vitellus*, the yolk of an egg.)

Membranaceous, Membranous.—Thin; semi-transparent; parchment-like; resembling membrane in consistency. (L. *membrana*.)

Membrane.—A thin, white animal tissue, serving to line or cover the parts or organs. (L. *membrana*, a skin covering a member.)

Membrane.—The membranaceous apical portion of the elytra of the Hemiptera-Heteroptera. (Saunders.) (L. *membrana*.)

Membranous.—Pertaining to membrane; of the consistency of membrane. (L. *membrana*.)

Meniscoidal.—Somewhat globular, with one side concave; concavo-convex; crescent-shaped; having the form or appearance of a meniscus. (Gr. *meniskos*, a little moon.)

Mentum.—The smaller of the two-jointed plates formed by the two basal parts of the protopodites fusing together. (L., the chin.)

Mentum.—The chin, one of the two parts constituting the labium, being a corneous plate of varying form, connected to the clypeus, by means of a membrane, with the margin of the gula, and forms from beneath the inferior covering of the mouth. (L.)

Meriæum.—The plate or plates constituting the anterior surface of the sockets of the posterior legs, situated behind the acetabulum and parapleura. (Knoch.)

Meroblastic.—The term given to eggs which undergo a partial segmentation. (Gr. *meros*, a part and *blastos*, a sprout.) See Partial segmentation.

Mesenteron.—A short thin tube following the gizzard which connects the original anterior and posterior invaginations of the embryo. The mid gut comprising only the stomach. (Gr. *mesos*, middle, and *enteron*, intestines.)

Mesepimeron.—[See Mesepisternum.]

Mesepisternum.—One of the two elements placed on each side of the thorax of Ants, between the mesonotum and the mesosternum; the other element is the mesepimeron. The mesepisternum is placed ventrally while the mesepimeron is dorsal. (Wheeler.) (Gr. *mesos*, middle, and *epi*, on, and *sternum*.)

Meso.—A Greek prefix signifying the middle.

Mesoblast.—(Gr. *meso*, and *blastos*, a sprout.) See Mesoderm.

Mesoderm, or Mesoblast.—The middle embryonic cell-layer lying between the endoderm and the ectoderm. (Gr. *meso*, and *derma*, skin.)

Mesodermal Streaks.—(Embryol.) The two lateral streaks formed by the mesoderm dividing, due to the withdrawal of its cells from the median line.

Mesonotum.—The upper surface of the mesothorax. (Gr. *meso*, and *notum*, from *notos*, the back.)

- Mesoparapteron.**—A small sclerite placed behind the mesonotum of Ants; the præscutellum. (Wheeler.) (Gr. *meso*, *para*, beside, beyond, and *pteron*, a wing.)
- Mesopedes.**—The middle or intermediate legs. (Gr. *meso*, and *pedes*, from *pous*, a foot.)
- Mesopedum nervi.**—The two nerves descending to the feet from the mesothoracic cerebroida. (Gr. *meso*, and *pedum*, from *pous*, a foot; and *neuron*, a cord.)
- Mesophragma.**—A separating partition running parallel with the prophragma, and descending from the anterior margin of the metathorax. (Gr. *meso*, and *phragma*, an enclosure.)
- Mesopleura.**—The lateral surfaces of the mesothorax. (Gr. *meso*, and *pleura*, side.)
- Mesoscutellum.**—The scutellum of the mesothorax. (Gr. *meso*, and *scutellum*.)
- Mesoscutum.**—The scutum of the mesothorax. (Gr. *meso*, and *scutum*.)
- Mesosternum.**—The prominent central ridge of the medipectus. (Gr. *meso*, and L. *sternum*.)
- Mesostethium.**—The central piece between the intermediate and posterior legs. (Gr. *meso*, middle, and *stethos*, the breast.) See Acetabulum.
- Mesothoracic scutellum.**—The scutellum of the mesothorax. (Gr. *meso*, and L. *thorax*; and *scutella*, a flat plate.)

Mesothoracis scutum.—The scutum of the mesothorax. (Gr. *meso*, and L. *thorax*; and *scutum*, a shield.)

Mesothoracotheca.—The mesothoracic-case; that portion of the theca enclosing the mesothorax. (Gr. *meso*, *thorax*, and *theca*, a case.)

Mesothorax.—The third segment in insects. The middle segment of the thorax. (Gr. *meso*, and L. *thorax*.)

Meta-—A Greek prefix signifying with, beyond, after, and among.

Metabolous.—With complete metamorphosis. (Gr. *metabole*, change.) See Holometabolous.

Metalæ.—The posterior or hind wings, arising from the sides of the *metathorax*, one behind each of the forewings (*proalæ*); they occasionally possess characters the forewings have not. (Gr. *meta*, and L. *ala*, a wing.)

Metameres.—The typical rings or segments of the insect body. (Gr. *meta*, and *meros*, a part.)

Metameric Sacs.—The osmeteria which the caterpillars of *Orgyia* and its allies protrude when aggravated. They are red, eversible tubercles, situated on the sixth and seventh abdominal segments.

Metamorphosis.—The transformation from the imperfect or larval state to the perfect or imagal state. An alteration in the appearance of an insect, owing to the development of parts previously concealed, by a sudden vernantia,

or casting of the skin. There are only two divisions of metamorphosis recognised in Entomology:—*perfect*, when the pupa is quiescent, and *imperfect*, when it is active. (Gr. and L. a transformation.)

Metanotum.—The upper surface of the metathorax. (Gr. *meta*, and *notos*, the back.)

Metaparapteron.—The term given to the post-scutellum of Ants. (Wheeler.) (Gr. *meta*, *para*, beside, beyond, and *pteron*, a wing.)

Metapedes.—The posterior or hind legs. (Gr. *meta*, and *pous*, a foot.)

Metaplanta.—The second joint of the tarsus. (Gr. *meta*, and L. *planta*, a sprout.)

Metapleura.—The lateral surfaces of the metathorax. (Gr. *meta*, and *pleura*, side.)

Metapneustic.—A term given to one of the intermediate types between the holopneustic and apneustic tracheal systems:—When only a single pair of open stigmata are situated at the end of the body. (Larvæ of *Tipula*, *Culex*, *Coleoptera*, *Dyticus*.) (Gr. *meta*, and *pneuma*, air.)

Metapnystega.—A corneous scale covering the pneumatic organs in the metathorax. (Kirby.)

Metapodeon.—The seventh segment in insects. (Gr. *meta*, and *podeon*.)

Metascutellum.—The scutellum of the metathorax. (Gr. *meta*, and *scutellum*.)

Metascutum.—The scutum of the metathorax. (Gr. *meta*, and *scutum*.)

Metasternum.—The under surface of the metathorax. (Gr. *meta*, and L. *sternum* breast-bone.)

Metatarsus.—The first joint of the tarsus. (Theobald.) (Gr. *meta*, and *tarsus*.)

Metathoracis cerebroida.—The second cerebroida; the cerebroida of the metathorax. (Gr. *meta*, *thorax*, and L. *cerebrum*, the brain.)

Methathoracis scutum.—The scutum of the metathorax. (G. *meta*, L. *thorax*, and *scutum*, a shield.)

Metathorax.—The fourth segment in insects. (Gr. *meta*, and L. *thorax*.)

Metazona.—The posterior portion of the pronotum of Forficulidæ (Earwigs). (Gr. *meta*, and *zone*, a belt, girdle, etc.)

Micropyles.—The openings in the chorion of ova, through which the spermatozoa may enter. (Gr. *micro*, small, and *pule*, an opening.)

Mid-intestine (or stomach).—A simple tube varying much in size and shape, and not usually lined with chitin as are the fore- and hind-intestines. Generally two or more cæcal tubes (compound stomach) open into the anterior end, or the whole outer surface is beset with villi. (A.S. *mid*, *midd*, and *intestine*).

Miniatus.—Of the colour of red-lead. (L., of a vermilion red.)

- Modioliform.**—Somewhat globular, but truncated at both ends like the nave of a wheel. (L. *modius*, the Roman corn measure, and *forma*, form.)
- Mola.**—The grinding surface of the mandibles. (L. *mola*, a mill.)
- Monarsenous.**—That kind of *polygamy* in which one male suffices for many females (Say). (Gr. *monos*, single, and *arsen*, a male.)
- Mono.**—A Greek prefix for *monos*, signifying alone.
- Monodactyle.**—Armed with a movable nail or claw which closes on the tip (Say); it differs from chelate in having but one process. (Gr. *monodaktulos*, one fingered; *mono*, and *daktulos*, a finger.)
- Monogamous.**—Propagating by the union of one male and one female only. (Gr. *monos*, and *gamos*, marriage.)
- Moniliform.**—(Antennæ.) Having each joint oval or globose, resembling a necklace; bead-like in shape. (L. *monile*, a necklace, and *form*.)
- Monomerous.**—Of a single piece or joint. (Gr. *mono*, and *meros* a part.)
- Monothelious.**—That kind of *polygamy* in which the female is fecundated by many males (Say). (Gr. *monos*, one, and *thelos*, female.) See Monarsenous.
- Monotypic.**—Having one representative only, as a genus with a single species. (Gr. *mono*, and *typos*, an impression, from *typto*, to strike.)

Moschaite.—Possessing a musk-like smell. (L. *moschus*, musk.)

Moula.—“The knee-ball”; the convex and sometimes bent head of the tibia, armed with a horny process on either side for its attachment to the femur. (L.)

Mucro.—A short, stout, sharp-pointed process. (L., a point.)

Mucro.—The central posterior point of the epigastrium—seen in many of the orders—which reposes between the posterior legs; and according to some authorities is useful to the insect during flight. (L.)

Mucronate.—Abruptly terminating in a sharp point; possessing pointed processes. (L. *mucro*.)

Multi.—A Latin prefix for *multus*, signifying many, much.

Multarticulate.—Possessing many joints. (L. *multi*, and *articulo*, *articulare*, to divide into joints.)

Multifid, Multifidous.—(Incision.) Cut into *more* than *four*, or many marginal segments. (L. *multus*, many, and *findo*, to cleave.)

Multipartite.—Divided into *more* than *four* parts. (L. *multi*, and *pars*, a part.)

Mumiā pseudonymphā.—The term Lamarck gives to those pupæ which in their last stage of pupation possess some degree of locomotion.

Muricate.—Having dispersed elevations rising in sharp points. (L. *murex*, a pointed rock.)

Muricatus.—When the surface is covered with pointed pustules. (L. *murex*.)

Murinus.—Grey with a yellowish tinge; of the colour of the mouse. (L. *mus*, *muris*, a mouse.)

Musculis antlia.—The muscles of the antlia. (L. *muscles*; and Gr. *antlia*.)

Mushroom Bodies rise from each side of the central mass caused by the procerebral lobes fusing together; these bodies consist of a rounded lobular mass (called the trabecula) of the procerebral lobe from which arises a double stalk, the larger being called the cauliculus, the smaller the peduncle or pedicel; these support the cup or calyx. (O.F. *mouscheron*; F. *mousseron*, from *mousse*, moss.)

Mutic.—Without point or spine; unarmed. (From L. *mutilus*, maimed.)

Muticum.—(From L. *mutilus*.) See Inermis.

Myoglyphides.—The muscle-notches; notches in the posterior margin of the collum, usually two in number, to which the levator muscles are attached. It is chiefly observable in Coleoptera. (Gr. *mys*, a muscle, and *glyphis*, a notch.)

Myriapoda.—A class of the Articulata, including such as have an indeterminate number of jointed feet. (Gr. *myrios*, many, and *pous*, a foot.)

Mystax.—Hair situated on the clypeus, over the mouth; whiskers. (Gr. the beard upon the upper lip.)

Naked.—(Pupæ.)—(A.S. *nacod*, † Du. *noakt*, Ger. *nackt*.) See Pupæ nudæ.

Nasus.—The nose; that portion of the face often elevated and remarkable, situated between the labrum, postnasus, and genæ, and with which the labrum articulates. It includes the rhinarium. (L., the nose.)

Natatorial.—Adapted for swimming. (L. *no, natum*, to swim.)

Navicular.—When two sides meet and form an angle, like the keel of a boat. (L. *navicula*, a little ship.)

Nebulose.—Cloud-like in colouring, having, lighter, darker, and paler markings resembling the irregular colouring of a cloud. (Gr. *nephele*, a mist, a cloud.)

Necrophagous.—Feeding on dead or decaying matter. (Gr. *nekros*, dead, and *phago*, to eat.)

Nectaries.—The Cornicles.—(From L. *nectar*, nectar.)

Nervi antennarum.—The antennary nerves. They originate from the anterior margin of each hemisphere of the cerebrum, but more laterally when the antennæ are lateral, and centrally when those organs are inserted in the face. They run as simple undivided filaments, which in

the first case pass over the tendons of the mandibles, and in the second proceed contiguously to the great flexors of the mandibles, to the root of the antennæ, immediately beneath the membrane connecting them to the clypeus, but without sending off branches. They run from the base of the antennæ to the apexes, giving off on all sides delicate auxiliary branches to the muscles. (Burmeister.) (L.)

Nervi labii.—The labial nerves; these nerves come, when separated from those of the maxillæ, from the centre of the anterior margins of the cerebellum, and run direct to the labium, and here divide into several—generally two—main branches, the inner ones going to the tongue, and the outer ones to the labial palpi. (Burmeister.) (L.)

Nervi mandibularum.—The mandibular nerves. They pass out of the anterior portion of the cerebellum; they give off several delicate auxiliary branches to the flexors and extensors of the mandibles, and lastly, accompanied by branches of the trachea, pass into the cavity of the mandibles. (Burmeister.) (L.)

Nervi maxillarum.—The maxillary nerves. They sometimes originate in front, and sometimes behind the nerves of the mandibles, from the cerebellum, and run closely to them, passing between the muscles to the maxillæ. (Burmeister.) (L.)

Nervi oculorum.—The optic nerves. They originate from the lateral margins of the hemispheres of the cerebrum, and extend to the orbits, becoming gradually clavate, where they radiate into many branches. (Burmeister.) (L.)

Nervi optici secundarii.—The auxilliary optic nerves. They are peculiar only to insects possessing stemmata, and originate from the central portion of the cerebrum, and extend as simple and very fine filaments to the spot where the stemmata are situated, and then gradually diverge from each other. (Burmeister.) (L.)

Nervous System.—[See Cerebral ganglion.]

Nervures, or Nerves (*Nervi.*)—(Wing.) Corneous tubes for expanding the wing, and keeping it tense. (L. *nervus*, from Gr. *neuron*, a sinew, a chord.)

Neurilemma.—The hardish sheath formed of cells and nuclei covering the ganglii. (Gr. *neuron*, and *lemma*, a husk, or rind.)

Neuroptera.—A family of Hexapoda. An order of insects having four transparent, finely reticulated, membranous wings. (Gr. *neuron*, a nerve, and *pteron*, a wing.)

Nictitant ocellus.—When the *eye of colour* includes a lunar spot of a different colour. (From L. *nicto*, to wink, and *oculus*, an eye.)

Niger.—The colour of lamp-black. (L. black.)

Nigrescent.—Approaching to black in colour.
(L. *nigresco*, to grow black.)

Nigricanite.—Blackish; a bright black inclining to grey. (L. *nigror*, *oris*, blackness; dark colour.)

Nigricans.—An impure black colour. (L. *niger*.)

Nitid.—Shining.—(L. *nitidus*, shining, from *niteo*, to shine.)

Nitidum, Nitidus.—Shiny and glossy like metal.
(L. *niteo*, to shine.)

Niveus.—White; snow-like. (L., snow.)

Nodding Horn.—When a horn bends forwards.
(M.E. *nodden*; not in A.S.; but the original form began with *hn*; and A.S. *horn*.)

Nodose (*Nodosum*.)—(Antennæ.) Having the intermediate and terminal joints thicker than the remainder. Knotted, having knots or swelling joints. (L. *nodosus*, knotty; *nodus*, a knot.)

Nodular.—Pertaining to a nodule or knot. (L. *nodus*.)

Nodule.—A small knot or swelling. (L. *nodus*.)

Nodulose, Nodulous.—Possessing knots. (L. *nodus*.)

Normal.—This term is used loosely, but its meaning in comparison is always easily understood from the context. (L. *normalis*, adj.—L. *norma*, a carpenter's square.)

Nostril.—(E. *nostril*=*nose-thrill*, or *nose-thirl*; A.S. *nos-u*, nose.) See Rhinarium.

Notum.—The dorsal surface of a segment—the term is little used in this form, it is generally taken with its preceding part, *ex. pronotum*, etc. (Gr. *notum*, from *notos*, the back.)

Nucha.—The nape; the upper part of the collum. it includes the myoglyphides. (Arabic.)

Nucleat, Nucleiform.—Possessing a nucleus; in the form of a nucleus. (L. *nucleus*, small nut, kernel.—L. *nut*, stem of *nux*, a nut.)

Nucleus.—A nerve-centre. (L.)

Nudum.—Naked; having no markings or dust covering. (L. *nudus*, naked.)

Nutant.—(Head.) In observing the relations of the head to the thorax, the term is used when its longitudinal diameter forms an obtuse angle with the axis of the body. Nodding; bent down. (L. *nutans* from *nuto*, to nod.)

Nutant.—Bending over at the apex. (L. *nutans*.)

Nymph.—The pupal stage of an insect which undergoes incomplete metamorphosis. An ancient term for pupa. (L. *nympha*, a pupa.)

Ob-—A Latin prefix signifying in the way of, toward, and also reversal.

Obconical.—Of a reversed cone-shape—thickest part in front. (L. *ob*, and M.F. *cone*,—L. *conus*, a cone.)

Obcordate.—Inversely heart-shaped. (L. *ob*, and *cor*, the heart.)

- Obese.**—Unnaturally enlarged and distended, as if from disease or too much food ; fat ; fleshy ; (L. *obesus*, *ob*, *esum*, to eat.)
- Oblate.**—Flattened ; this term is applied to a spheroid of which the diameter is shortened at two opposite ends. (L. *ob*, and *latus*, broad.)
- Oblique.**—Running sideways ; when the longitudinal line is cut through at *acute* angles ; slanting ; neither perpendicular nor parallel. (L. *obliquus*, slanting.)
- Oblique tergals.**—Short muscles connecting the edges of the tergites of the abdomen. (L. *obliquus*, and *tergum*, the hinder part.)
- Oblique sternals.**—Very short muscles connecting the adjacent edge of the sternites of the abdomen. (L. *obliquus*, and from *sternum*, the breast-bone.)
- Obliterate.**—When the borders of spots, puncta, granules, etc., fade into the general ground-colour, and when elevations and depressions, etc., are so little raised or sunk from the surface as to be almost erased. (L. *ob*, and *litera*, a letter.)
- Oblongum.**—Oblong. (L.)
- Oblong.**—Having the *longitudinal* diameter more than *twice* the length of the *transverse* diameter ; longer than broad. (L. *oblongus*.)
- Obovate, Obovatus.**—Reversed egg-shaped ; inversely ovate. (L. *ob*, and *ovum*, an egg.)
- Obscure.**—Dark ; abstruse ; remote from observation ; indistinct. (L. *obscurus*, from Skt. *sku*, to cover.)

Obscure-aeneus.—Of an indistinct bronze colour. (L. *obscurus* and *aeneus*, brazen.)

Obsolete.—When a spot, tubercle, etc., is scarcely apparent. N.B.—This term is often employed where one sex, kindred species, or genera, want, or nearly so, a character which is conspicuous in the other sex, or in the species or genus to which they are most closely allied. (L. *ob*, and *soleo*, to be wont to.)

Obsolete.—Almost or entirely effaced; not fully developed; indistinct. (L. *obsoletus*, obsolete.)

Obtect pupæ.—Pupæ which have the limbs and wings immovably fixed by a general hardening and fusing of the outer skin, or theca. (L. *ob*, and *tectum*, to cover.)

Obtected.—Covered. (L. *ob*, and *tectum*.)

Obtusa.—(Lacinia.) Rounded and not produced into a prominent or active point. (L. *obtusus*, blunt, obtuse.)

Obtuse.—Having a rounded termination; blunt; not pointed or acute. (L. *obtusus*, blunt.)

Obverse.—When an object is viewed with its *head* towards you. (L. *ob*, and *verto*, *versum*, to turn.)

Occipital foramen.—A large shield-shaped opening behind the head through which the œsophagus, nerve cords, and air tubes pass back to the body. (L. *ob*, and *caput*; and foramen, from L. *foro*, to bore.)

Occiput.—The back of the head, around the commencement of the collum. (L. *ob*, and *caput*, the head.)

Ocelli.—Simple eyes, small extra eyes, usually situated on the top of the head. The cuticle covering the eye is thickened like a lens. Below the lens there is a layer of transparent cells, continuous with the adjacent epidermal cells. (L. *ocellus*, a little eye.)

Ocellate, Ocellated, Ocelloid.—Furnished with round spots surrounded by a ring of lighter colour; resembling ocelli in appearance. (L., *ocellus*.)

Ocellus.—An eye-like spot of colour, consisting of annuli of different colours, enclosing a central spot or *pupil*. (L. an eye.)

Ochraceus.—Brownish-yellow in colour. (Gr. *ochra*, from *ochros*, yellowish.)

Octoon.—The eighth segment in insects. (L. *octo*, eight.)

Oculi.—Compound eyes. They consist of a large number (as many as several thousand) of simple eyes, closely packed together in the form of hexagons. The compound eye is, however, peculiar, in that the ommatidia are very narrow and elongate, and each one consists of only a few retinal (6-8) and vitreous cells. (Boas.) (L. *oculus*, an eye; L. *oculeus*, full of eyes.)

Oculi approximati.—Eyes closely set together. (L. *oculus*, and *a*, and *proximus*, near.)

- Oculi distantes.**—Eyes when separated by the brow. (L. *oculus*, and *dis*, separation, and *sto*, to stand.)
- Oculi nudi.**—Naked eyes, eyes without hair, marks, or covering. (L. *oculus*, and *nudus*, naked.)
- Oculi pilosi.**—Eyes which have the margins of separation thickly set with hair. (L. *oculus*, and *pilus*, hair.)
- Oculi simplices.**—Ocelli, simple eyes.—(L. *oculus*, and *simplex*, simple.)
- Odoratus.**—(Scent.) An undefined sweet smell. (L., sweet smelling.)
- Œnocytes.**—Large, yellowish cells, situated on each side of the abdomen (rarely found in the thorax) and held in place by the trachea. They are associated with the blood and fat. (Wielowiejski.) (Gr. *oinos*, wine, and *kustis*, a cyst.)
- Œnocytes.**—Glandular cells arising in segmental clusters from the ectoderm of the embryo just behind the tracheal invaginations. In the adult they are very small, and scattered about among the fat cells. Their function is not exactly known. (Gr. *oinos*, and *kustis*.)
- Œruginous.**—Bright green. (L. *æruugo*, rust of copper, verdigris.) See *Æruginous*.
- Œsophageal valve.**—An invagination of the fore-stomach which projects into the cavity of the mid-intestine. (Schneider.)

A tubular prolongation of the posterior end

of the œsophagus which passes through the proventriculus and opens at various positions in the anterior part of the chylific stomach. (Gehuchten.)

Œsophagus.—A small tube of the digestive system commencing at the posterior end of the buccal cavity, passing upwards and backwards directly under the brain, and merging into the crop or proventriculus, either at the back part of the head or in the thorax. (Gr. *oiso*, to carry, and *phago*, to eat).

Olfactory.—Pertaining to, or used in smell. (L. *oleo*, to smell, and *facio*, to make.)

Olfactory nerve centres.—Paired swellings constituting the deutocerebron.

Olivaceous.—Olive green, resembling the green colour of olives. (Gr. *elaia*, an olive.)

Ommateum.—The compound eye. (Gr. *ommatos*, the eye.)

Ommatidia.—The eye elements, those parts of the eye constituting its structure. (Boas.) (Gr. *ommatoo*, to furnish with eyes.)

Onischiform.—Shaped like an Oniscus or Wood Louse. (*Onischus*, a wood louse, and *form*.)

Onyches.—Claws, the movable hooks usually situated at the tip of the tarsi. (From Gr. *onyx*, the nail.)

Onychia.—Foot-pads. (Gr. *onyx*.) See Pulvilli.

Onychium.—The last joint of the tarsus which carry the onychia or onyches. (Gr. *onyx*.)

Ootheca.—The egg-envelope, or egg case; the membrane exuded by the female during oviposition, and with which she covers the deposited eggs. (Gr. *oon*, an egg, and *theca*, a case.)

Oothecal membrane.—[See Ootheca.]

Oothecal plates.—Two chitinous plates situated at the external orifice, within the lower lip, of the cloacal chamber, and exercised by the female while laying her eggs, to cut the oothecal membrane.

Opacus.—Clouded, not transparent. (L. dark.)

Opaline.—(Splendour.) Of a bluish-white, reflecting prismatic colours. Like the splendour of opals. (L. *opal*.)

Opalizans.—Opaline.—(L. *opal*.)

Opercula.—The covering of the spiracles of the metathorax. (L. *operculum*, a lid or cover, from *operio*, to cover.)

Operculiform.—Having the shape or form of a lid or cover. (L. *operculum*, and *forma*.)

Operculum.—A lid; a small valvular appendage. (L.)

Ophthalmothecæ.—The eye-cases, that portion of the theca enclosing the eyes. (Gr. *ophthalmos*, the eye, and *theca*, a case.)

Optic ganglia.—The two nerve centres from which the optic nerves arise, each is formed of a series of ganglionic masses situated between the compound eyes and the procerebral mass,—the ganglionic plate, external medullary mass, and the internal medullary mass. (Gr. *optikos*, and *ganglion*.)

Optic nerve.—The nerve of the eye, which conveys the impressions of vision to the cerebral ganglion, and which is formed by the fibres of the internal medullary mass, and the protocerebrum uniting. (Fr. *optique*, from Gr. *optikos*, pertaining to sight, and *neuron*, a cord.) See *Nervi oculorum*.

Optic tract, or trunk.—The optic nerve. (Fr. *optique*, and L. *traho, tractum*, to draw; or *truncus*.)

Opticon.—The first swelling of the optic tract. (Gr. *optikos*.)

Ora.—The broad lateral margin of the prothorax. (L., edge, cable, etc.)

Orb.—A globe; a circle. (L. *orbis*, a circle.)

Orbicular.—In the form of an orb. (L. *orbicularis*, from *orbis*.)

Orbiculate.—A depressed globe in form, whose *horizontal* section is circular, and *vertical* oval; being in the form of an orb. (L. *orbiculatus*, from *orbis*.)

Orbital.—Relating to the upper border of the eye. (L. *orbis*, and *eo*, to go.)

Ordinate.—When spots, puncta, etc., are placed in rows. Thus the terms *ordinato-punctate*, etc., are constructed. (L. *ordinatus*, in order.)

Orichalceous.—Resembling gold in colour. A splendour intermediate between that of gold and brass. (Gr. *oros*, a mountain; and *chalkos*, brass.)

Orthoptera.—A family of Hexapoda. An order of insects having four wings, the first pair being leathery with longitudinal veins, and the second pair fan-shaped. (Gr. *orthos*, straight, and *pteron*, a wing.)

Os.—A mouth; a bone. (L.)

Os hyoideum.—The tongue bone, the horny portion of the lingula, which often protrudes beyond the anterior margin of the mentum. (L. *os*, and Gr. *uoides*, “a bone on the top of the windpipe, shaped like the letter U.”)

Osmeterium.—The large coloured V-shaped fleshy process, which the caterpillars of the swallow-tailed butterflies protrude from a transverse slit on the dorsal surface of the prothoracic segment.

Osseous.—Resembling bone; bony. (L. *osseus*, from *os*, *ossis*, a bone.)

Ostia.—Lateral slit-like openings, along the sides of the “heart.” (L. *ostium*, a door, entrance.)

Outer.—Being on the outside; external; opposed to inner. (M.E. *utter*, a comparative form of *ut*, out.)

- Outer edge.**—(Wing.) The extreme border running from the apex to the inner angle.
- Ova favosa.**—Eggs which are placed in closed cells formed by the parents for the reception of the ova; for ex. *Apis*, *Vespa*. (L. *ova*, eggs, and *favus*, honeycomb.)
- Ova gallata.**—Eggs which are placed in the galls of plants; for ex. *Cynips*, *Diplolepis*. (L. *ova*, eggs, and *galla*, a gall-nut.)
- Ova glebata.**—Eggs which are concealed in lumps of dung; for ex. *Gymnopl pilularius*. (L. *ova*, and *gleba*, a clod, soil, etc.)
- Ova gummosa.**—Eggs which adhere owing to the presence of a gummy secretion. (L. *ova*, and *gummi*, gum.)
- Ova imposita.**—Eggs which are deposited within the food of the young; for ex. the eggs of Ichneumons in the bodies of larvæ. (L. *ova*, and *impositus*, part. of *impono*, to lay, set, or place in.)
- Ova nuda.**—Eggs which lie dispersed in any direction; for ex. the eggs of *Musca domestica* L. (L. *ova*, and *nudus*, naked, disclosed.)
- Ova pilosa.**—Eggs deposited in irregular heaps over which the female spreads hair from her posterior abdominal segments to secure them from adverse elements; for ex. the eggs of *Anisopteryx aescularia* L. (L. *ova*, and *pilosus*, hairy.)

- Ova solitaria.**—Eggs which are placed singly upon the food plant; for ex. the eggs of *Sphinx convolvuli* L. (L. *ova*, and *solitarius*, solitary.)
- Ova spiraliter deposita.**—Eggs which are placed in a spiral line around the young shoots of the food plant; for ex. the eggs of *Clissiocampa neustria* L. (L. *ova*, spiral, and *depositus*, from *depano*, to lay.)
- Oval, Ovate, Ovoid.**—Of the shape of an egg, elliptical. (L. *ovum*, an egg.)
- Ovaliform.**—Having the *longitudinal* section oval, and the *transverse* circular; in the form of an oval. (L. *ovum*, and *form*; *ovi-form*, egg-shaped.)
- Ovarian tubules.**—The ovarioles. (L. *ova*, and *tubula*, tubes.)
- Ovaries.**—Part of the female genitalia. They are a pair, consisting of a varying number of tubules (ovarioles) which usually extend like fingers from the anterior end of the oviduct. Each ovariole is surrounded by a thin membrane and is immature anteriorly, consisting of small homogeneous cells; further back there are larger cells, young ova, lying in the middle of the tube, and surrounded by smaller cells, which provide them with nutriment, and also secrete the shell (*chorion*), for the fully developed egg. (**Der.** *ov-ar-y*; Late L. *ouaria*, that part of the body in which the eggs are formed.)
- Ovarioles.**—Tubes or tubules which carry the ovaries. [See Ovaries.]

- Ovate.**—Egg-shaped. (L. *ova*.)
- Oviduct.**—The tube formed by the eight tubules of the ovary. Two in number. (L. *ovum* and *duct*.)
- Ovigerous.**—The term applied to a female insect after copulation and the first moult after copulation has taken place. (L. *ovi*, and *gero*, to bear.)
- Oviparous.**—Producing eggs. (*Oviparous*, *oviparous*, from L. *ovi-parous*, egg-producing.)
- Oviposition.**—The laying of eggs. (L. *ovum*, and *pono*, to place.)
- Ovipositor.**—An appendage of the telum whereby the female insect lays her eggs. The ovipositors of insects vary, they may be *external*, as in the Ichneumon; or *tubular* retractile, as in the bot-flies, or saw-like (*terebella*). (L. *ovi*, and *positor*, from *pono*, to lay down.)
- Ovisac.**—The cavity in the ovary which holds the eggs. (Coccidæ.) The envelope in which the eggs are laid; sometimes spoken of as *sac*. (L. *ovum*, and *sac*; A.S. *sacc*—L. *saccus*, a bag.)
- Ovi-viviparous, or ovo-viviparous.**—Producing living young, *i.e.*, the egg is hatched in the mother, and the young thus born are well developed; a species of propagation to which the ancients applied the name *Insecta ovo-vivipara*. (L. *ovum*, and *viviparous*, from L. *uiui-parous*, producing living young.—L. *vivus*, living; *parere*, to produce.)

Ovoid, Ovoidal.—Egg-like ; egg-like in shape. (L. *ovum*, and Gr. *eidos*, like.)

Ovum (ova).—The egg ; the bodies in the ovaries which, when impregnated, become the embryos. (L.)

Pædogenesis.—A form of virgin reproduction ; when the ovaries become mature during larval life, so that eggs are produced which, without fertilization, develop within the body of the grub ; young larvæ being born in an active condition of a larval mother. (From Gr. *pais*, a child, and *genesis*, production.)

Pagina inferior.—The lower surface of a wing. (L. a leaf or page, and *inferior*.) See Prone Surface.

Pagina superior.—The upper surface of a wing. (L. and *superior*.) See Supine Surface.

Paired ganglia.—The two nerve centres situated on either side of the recurrent nerve just behind the supra-œsophageal ganglion and connected with cords to one another. They give off nerves to the salivary glands. (L. *pars*, equal, and *ganglion*.)

Paired Sympathetic Nervous System.—The lateral sympathetic nervous system.

Paleaceous.—Chaffy (Say). Abounding with chaffy scales. (From L. *palea*, chaff.)

Pallide-flavens.—Pale or whitish yellow. (L. *pallidus*, pale, and *flavus*, yellow.)

Pallidus.—Very pale in colour. (L.)

Palma.—The “Palm,” the basal tarsal joint of the anterior legs, sometimes furnished with strigilis. (L. the palm of the hand.) See Manus.

Palmate.—Widened and divided like the hand. (L. *palma*.) See Digitate.

Palmate hairs.—Ten small conical branched hairs, situated one on each side of the upper surface of the third, fourth, fifth, sixth and seventh abdominal segments of the *Anopheles* larvæ. The hairs form a more or less cup-shaped organ on the end of a delicate but distinct stalk, by means of which the larva is supported horizontally, close under the surface of the water.

Palp ; Palpi.—Are the auxiliary organs of a masticating or mandibulate mouth ; they are seldom simple appendages, inserted upon the maxillæ and labium. (L. *palpi*, from *palpo*, to feel.)

Palpi æquales.—Equal palpi, opposite of palpi inæquales. Palpi possessing equal joints. (L. *palpi*, and *æqualis*, equal.)

Palpi brevissimi.—Very short, hardly distinguishable palpi. (L. and *brevis*, short).

Palpi clavati.—Clavate palpi. (L. and *clavus*, a club.)

Palpi cuneiformes.—Wedge-shaped palpi ; when the last joint is wedge-shaped, which is attached by its sharp end to the preceding joint. (L. and *cuneus*, a wedge, and *forma*, shape.)

Palpi excavati.—Palpi which have the last joint concave at the extremity. (L. and *ex*, and *cavus*, hollow.)

Palpi fasciculati.—Palpi which have the terminal joint split into many threads and processes. (L. and *fasciculus*, a small bundle, etc.)

Palpi fissi.—Divided palpi ; when the last joint is divided longitudinally. (L. and *fissum*, cleft.)

Palpi inæquales.—Unequal palpi ; when single joints take a different form. (L. and *inæqualis*, unequal.)

Palpi lamellati.—Lamellate palpi. (L. and *lamina*, a plate.)

Palpi lunati.—Lunate palpi ; palpi in the form of a crescent. (L. and *luna*, the moon.)

Palpi maxillares interni.—Internal maxillary palpi, which are found only in the tiger beetles and the water beetles, and which is analogous to the galea of the Orthopoda. (L. and *maxilla*, and *internus*, internal.)

Palpi pilosi.—Pilose palpi ; palpi covered with soft down or hairs ; hairy palpi. (L. and *pilus*, hair.)

Palpi subulati.—Subulate palpi ; palpi terminating in a sharp, fine point. (L. and *subula*, an awl.)

- Palpi turgidi.**—Turgid palpi, the last joint being turgid, or bladder like in shape. (L. and *turgidus*, swollen.)
- Palpifer.**—The Palpiger. (L. *palpi*, and *fero*, to bear.)
- Palpiformis.**—(Galea.) When distinct from the lacinia and composed of several cylindrical joints. (L. *palpi*, and *forma*, shape.)
- Palpiger.**—The process situated outwardly at the base of the Stipes and bearing the palp. (L. *palpi*, and *gero*, to bear.)
- Palpiger of labium.**—The third portion of the labium, bearing the labial palpi. (L. *palpi*, and *gero*, and *labium*, lip.)
- Palpiger of maxillæ.**—The third portion of the maxillæ, distinguished by bearing maxillary palpi. (L. *palpi*, and *gero*, and *maxillæ*, the cheeks.)
- Panduriform.**—Fiddle-shaped; oblong, broad at the two extremities, and contracted in the middle. (L. *pandura*, a bandore, and *forma*, shape.)
- Papilionaceous.**—Butterfly-like; butterfly-shaped. (L. *papilio*, a butterfly.)
- Papillæ.**—Small rounded tubercles, or pustules. (L. small pustules.)
- Papillate.**—Covered with papillæ; possessing papillæ or soft tubercles. (L. *papilla*.)

- Papilliform.**—Having the shape or form of a nipple or tubercle. (L. *papilla*, and *forma*, shape, form.)
- Papillulate.**—Resembling papillæ; having depressions or elevations with a small elevation in their centres. (L. *papillæ*, small pustules.)
- Papillule.**—A tubercle or variole with an elevation in its centre. (L. *papillulus*.)
- Pappus.**—Down. (L. down.)
- Para-**—A Greek prefix, signifying beside or beyond.
- Paraglossæ.**—The short lateral lobes of a setiform lingula. The lobes of the second maxillæ. (Gr. *para*, and *glossa*, the tongue.)
- Paraglossæ.**—Filaments growing on the tongue in Hymenoptera.
- Parallelopipedous.**—*Six*-sided, with *four* parallelogramical and *two* quadrate sides; an oblong body with a square cross-section. (Gr. *para*, and *allelon*, one another, parallel; and *epi*, upon, and *pedon*, the ground.)
- Paramera.**—The genital appendages of the male, they are divided into the external and internal mera (parts). (Gr. *para*, and *meros*, a part.) See External, and Internal Paramera.
- Paranal lobes.**—The podical plates. (Gr. *para* and L. *anus*.)
- Parapleuræ.**—The lateral pieces on each side of the mesostethium. (Gr. *para*, and *pleura*, a rib, a side.)

Parapleuræ.—Side pieces, situated near to, or on either side of the acetabulum, limited anteriorly by the scapulæ. They are often divided into two. (Knoch.)

Parapleurum.—The Parapleuræ.—Those pieces of the postpectus which are situated one on each side of the acetabulum, behind the scapula; in some genera there are two on each side, and may be distinguished into *anterior* and *posterior* parapleuræ (Say).

Parapodium.—A foot-tubercle. (Gr. *para*, and *podion*, dimin. of *pous*, a foot.)

Parapsidal suture.—The suture which separates each side of the mesonotum from the median portion of the segment in Ants. (Wheeler.) (Gr. *para*, and A.S. *side*.)

Parapsides.—The lateral portions of the scutellum of the mesothorax when it is divided into three by longitudinal sutural lines.

Parapsis.—The area cut off from each side of the mesonotum by the parapsidal suture. (Wheeler.)

Paraptera (pl. *æ*).—The term McLeay gives to the tegulæ. (Gr. *para*, and *pteron*, a wing.)

Parasite.—An animal which lives in, on, or at the expense of the substance of another. Leuckhart divided parasites into ecto- and endo-parasites, according as they live on, or in, their hosts. (Gr. *para*, and *sitos*, food.)

Parasitical.—Living on, or at the expense of another organism, like a parasite. (Gr. *para*, and *sitos*.)

Parasitised.—Containing parasites. Affected or attacked by parasites. (Gr. *para*, and *sitos*.)

Parastigma.—A darkened spot between the costal and post-costal nerves. (Gr. *para*, and *stigma*, a mark.)

Parastigmatic glands.—Circular glands sometimes present around the openings of the spiracles.

Parateli corculum.—The twelfth corculum. (Gr. *para*, beside, and *telos*, end, and L. *corculum*, a little heart.)

Paratellum.—The twelfth or penultimate segment in insects. (Gr. *para*, and *tellum*, from *telos*, the end.)

Paratype.—A specimen which has been compared with the *type* of a species. (Gr. *para*, and *typos*, from *typto*, to strike.)

Parencyhma.—The soft tissues of organs, generally applied to that of glands. (Owen.) Applied to the proper substance of viscera, excluding connective tissue, blood-vessels, and other accessory organs. (Huxley.) (Gr. *para*, and *engchuma*, an *infusion*; *en*, in, and *cheo*, to pour.)

Parietes.—Walls; the perpendicular sides of honeycomb; the sides of elevated bodies; the inside walls of any anatomical cavity. (L. *paries*, a wall.)

Pars basalis.*—(L. *pars*, a part, and *basis*, base or foot.) See *Cardo*.

Partes oris.—The oral organs, or mouth parts. (L. *pars*, a part, and *oris*, a mouth.)

Parthenogenesis.—Production by means of unimpregnated ova. (Gr. *parthenos*, a virgin, and *gennao*, to produce.)

Parthenogenetic.—Relating to parthenogenesis.

Partial segmentation.—Egg division; where a layer of germinal cells is formed at one side of the egg or round the central yolk. (From L. *parti-*, decl. stem of *pars*, a part, and *segment*, from *seco*, to cut.)

Partite.—Divided to, or almost to, the base; pl. *partita*. (L. *partiri*, to divide.)

Parturition.—The period during which the female is producing ova, or larvæ, as in the case of *Coccidæ*. (L. *pario*, *partum*, to bring forth.)

Patagium, pl. **Patagia.**—Two horny erectile plates sometimes densely covered with hair, on the prothorax of *Lepidoptera*. (L. *patagium*, a gold edging or border on the tunic of a Roman lady.) See *Tegula*.

Patagium.—A sausage-shaped body situated on each side of the prothorax, in front of the first pair of spiracles, of mosquitoes. (Christophers.) (L.)

Patella.—A bowl or cup. (L.)

According to Straus it is named *Branche transversale*.

Patelliform.—Cup or bowl-like. (L. *patella*, and *forma*.)

Patulous.—Spreading; open; having a spreading aperture. (L. *patulus*, from *pateo*, to lie upon.)

Pearlaceous.—Having the appearance of a pearl. (A.S. *pærl*; Fr. *perle*.—Low L. *perula*.)

Pecten.—Rigid, incurved setæ, which arm the exterior margin of the upper part of the base of the maxillæ, and the valvulæ. (L. a comb.)

Pectinate.—Toothed; resembling the teeth of a comb. (L. *pectin*, stem of *pecten*, a comb.)

Pectinato-fimbriatæ.—(Antennæ). Being pectinate, and fimbriate at the same time. (L. *pectin*, and *fimbria*, a fringe.)

Pectines.—Two moveable processes fixed one on each side, below the posterior legs, to the metasternum. (From L. *pectin*.)

Pectiniformate.—(Antennæ.) Having joints furnished on one side with slender processes resembling a comb. (L. *pectin*, and *forma*.)

Pectus.—“The breast”; that portion of the trunk which lies between the neck and the abdomen, but which above is covered by the elytra. (Knoch.) (L.)

Pedal.—Pertaining to the foot or leg. (L. *pedalis*, belonging to the foot, from *ped-*, stem of *pes*, foot.)

Pedalian.—Pertaining to the foot, or leg. (L. *pes*, *pedis*, the foot.)

Pedicel.—The peduncle. (Fr. *pedicelle*, O.F. *pedicule*, from L. *pedis*, a foot.)

Pedis.—Pl. pedes. A foot, or leg. (L.)

Pedes natatorii.—Legs adapted to swimming. (L. *pedis*, and *no, natum*, to swim.)

Pedes spurii.—Spurious legs, prolegs. (L. *pedes*, and *spurii*.) See propedes.

Pedes raptorii.—Legs adapted to the seizing of prey.—(L. *pedes*, and *raptor*, from *rapio*, to rob.)

Pedicellate.—Supported by a pedicel. (L. *pediculus*, a foot stalk, a pedicel.)

Pedicellus.—The second joint of the antennæ. (L. *pediculus*, a stalk.)

Peduncle.—A piece supporting an organ, or joining one organ to another, like a neck. (Low L. *pedunculus*, from *pedis*, a foot.)

Peduncle.—The smaller of the two stalks arising from the trabecula and which support the calyx of the mushroom bodies. (L. *pedunculus*.)

Peduncular.—Pertaining to a peduncle.

Pedunculate.—Having a peduncle ; supported by, or supporting a peduncle.

Pedunculate.—Having the peduncle slender and thread-like.

Pellucid, Pellucidate.—Coloured, but transparent ; clear, transparent. (L. *per*, very, and *lucidus*, clear.)

Peltate.—Target-shaped (Say.). (L. *pelta*, from Gr. *pelte*, a shield.)

Pencil.—A long flexible hair. (L. *penecillus*, dimin. of *peneculus*, from *penis*, a tail.)

Pencillate.—Possessing pencils ; when long flexible hair is placed upon a thin stalk.

Pendent.—Hanging down. (Fr. *pendant*, hanging.)

Penecelli, Penicelli.—Long flexible hairs. (L. *penecillus* [see pencil] a brush or pencil.)

Penicillate.—(Maxillæ.) When the whole superior process of the under jaw is clothed with hair.

Penicilli.—Small hairy appendages of the genitalia of Ants attached to the tergite, or dorsal plate of the tenth abdominal segment. These organs are frequently used as diagnostic characters for the classification.

Penicilliform.—Pencil-shaped.

Penis.—A portion of the male genitalia. It is an evagination of the body-wall through which the terminal portion of the seminal duct is continued, and is capable of partial or complete retraction when not in use ; in many insects it may possess hard chitinous portions, and lies hidden within the cloaca, from which it may be protruded during copulation. (L.)

Pennaceous.—Feathered, like the web of a quill. (L. *penna*, a feather.)

Pentamerous.—Having five joints. (Gr. *pente*, five, and *meros*, a part.)

- Penultimate.**—The last but one. (L. *pene*, *pæne*, almost, and *ultimus*, last.)
- Per.**—A Latin prefix denoting through, by, very, over the whole extent.
- Perfect.**—Possessing all properties or qualities necessary for its complete state; complete in all parts. (L. *perfectus*.)
- Perfoliate.**—Formed of joints which appear to be strung together by a common thread. (L. *per*, and *folium*, a leaf.)
- Perforatæ, Perforate.**—(Antennæ.) When a portion of each joint is dilated and flattened and the remaining portion cylindrical, appears like a thread on which the dilated parts are strung. (L. *per*, and *foro*, to bore.)
- Pergameneous.**—Of a thin, tough, semi-transparent substance,—parchment-like. (The term is derived from *Pergamos*, in Mysia, where parchment was invented.)
- Peri.**—A Greek prefix signifying around, near.
- Pericardial, Pericardian.**—Relating to the pericardium. (Gr. *peri*, and *kardia*, the heart.)
- Pericardial cells.**—Small cells attached to the suspensory filaments and muscles of the circulatory system; their function is not exactly known. (Gr. *peri*, and *kardia*.)
- Pericardial diaphragm.**—A delicate perforated membrane lining the lower surface of the pericardium. (G. *peri*, and *kardia*; *dia*, through, and *phragma*, an enclosure.)

Pericardium.—The irregular chamber which is bounded above by the upper body-wall, and its muscles, and below by the pericardial diaphragm, and in which the “heart” lies. (Gr. *peri*, and *kardia*, the heart.)

Periopticon.—An object of retinal structure, consisting of a series of rod-like pigmented nerve-cells surrounded by small “chaplet-cells” with a large nucleus, and connecting the nerve-fibres which pass out through the perforated membrane to the retinulæ surrounding the eye-rods. (Gr. *peri*, and *optikos*, pertaining to the sight.)

Periphæria.—The contour; surface. (Gr. *peri*, and *phero*, to bear.)

Peripneustic.—A term given to one of the intermediate types between the holopneustic and apneustic tracheal systems. When the prothoracic and abdominal spiracles are open, while the mesothoracic pair are closed or atrophied. (Larvæ of Coleoptera, Lepidoptera, Hymenoptera, Neuroptera, Mecoptera, and Trichoptera.) (Gr. *peri*, and from *pneuma* air.)

Peristæthium.—The Peristethium. That portion of the postpectus anterior to the insertion of the legs; it extends laterally to the scapulæ, and is generally connected to the pectus by a membrane (Say.)

Peristethium. The anterior central part of the medipectus, lying in front of the sockets of the intermediate legs. (Gr. *peri*, and *stethos*, the breast.)

Peristomium.—The oral margin or border of the mouth of Diptera. (Loew.) (Gr. *peri*, and *stoma*, the mouth.)

Peritracheal membrane.—The ectotrachea. (Gr. *peri* and *trachys*; and membrane.)

Peritrema.—The small plate which is perforated by the external opening of the spiracles directly under the fore-wing. (Audouin.) (Gr. *peri*, and *trema*, a hole.)

Peritrophic membrane.—A funnel-shaped fold of membrane situated on the hinder end of the proventriculus and enclosing its outlet, extending back like a tube to the anus. (Gr. *peri*, and *trepo*, to turn.)

Perpendicular.—At right angles to the horizon. (Gr. *perpendicularum*, a plumbline.)

Perpendiculare.—(Head.) Observing the relations of the head to the thorax; *the term is used when its longitudinal diameter forms a right angle with the axis of the body.*

Persistent.—Permanent. (L. *persisto*, to persist.)

Petiolar.—Pertaining to a petiole. (L. *petiolus*, a little stalk.)

Petiolate.—(Egg). Stalked; placed upon a stalk. (L. *petiolus*.)

Petiole.—A stalk. (F. *petiole*, a foot-stalk of a leaf. L. *petiolum*, acc. of *petiolus*, little stalk.)

Petiolule.—A small petiole.

Petiolus.—The footstalk; a slender part by which the abdomen of many Hymenoptera is united to the trunk; it includes the funiculus, and foramen. (L.)

Phallus.—The male organ of generation. (Gr. *phallos*.)

Pharyngeal nerve.—Two small nerves arising from each side of the frontal ganglion, extending latero-ventrally to the lower portions of the pharynx. (Hammar.) (From Gr. *pharunyx*, the pharynx.)

Pharyngeal pump.—The antlia.

Pharynx.—The opening into the gullet; it includes the epipharynx and hypopharynx. (L. from Gr. *pharunx*.)

Phial.—A little sac to receive fluid at the will of the insect, by which the weight of the wing is increased. (Gr. *phiale*, a small vessel, or bottle.)

Phosphorescent.—Lucid; emitting light in the dark. (From L. *phosphorus*.)

Phragma.—The posterior margin of the prothorax descending in front of the alitrunk. (Gr. an enclosure.)

Phylogenetic.—Pertaining to the history of the race. (Gr. *phule*, a tribe, and *gennao*, to bring forth.)

Phytophagus.—Feeding on plants. (Gr. *phyton*, a plant and *phago*, to eat.)

- Piceous, Piceus.**—Black with a greenish tint ; the colour of pitch. (L. *piceus*, black as pitch.)
- Pigment.**—The substance in which the cones or pseudocones of the eye are buried, it forms two layers, the iris pigment (iris tapetum) and the inner retinal pigment. (L. *pigmentum*, from *pig-*, root of *pingo*, to paint.)
- Piliferous, Piligerous.**—Bearing hair ; covered with hair. (L. *pilus*, hair, and *fero*, and *gero*, to bear.)
- Pilose.**—Covered with soft down or short hairs ; hairy. (L. *pilus*, hair.)
- Pinguis.**—Naturally and proportionately plump. (L. fat.)
- Pinnate.**—Having thorny processes, or stiff hairs. Branching or cleft like a feather. (L. *penna*, a feather.)
- Pinnatifid.**—With winged clefts. (L. *penna*.)
- Pinnulate.**—(L. *penna*.) See pinnate.
- Pitchy.**—Blackish-brown ; the term is used loosely. (A.S. *pic*, and L. *pix*, pitch, tar.)
- Plaga.**—A long spot of irregular form, and colour. (L. a bruise.)
- Plagate.**—Possessing plagæ.
- Plane.**—A surface destitute of elevations, depressions and markings. (Fr. from Low L. *plana*, a plane.)

Planta.—The first joint of the tarsus. (L. sole of the foot.)

Plantula.—A minute accessory joint, sometimes attached within the claws to the apex of the ungula; to be seen in the stag-beetles. (Diminutive of L. *planta*.)

Pleuræ.—Lateral plates of the segment; lateral equivalents of the tergæ.—The lateral surfaces of the segments. (Gr. *pleura*, the side). See Præpleura.

Pleural.—Pertaining to the lateral surfaces of the segments. (Gr. *pleura*.)

Pleural region.—The region separating the upper and ventral arcs, formed by the tergites and sternites, of a segment.

Pleurites.—Another term for the pleuræ. (Packard.)

Plicate.—Furnished with a fold, or folds; like a fan. (L. *plico*, to fold.)

Plumbeus.—Lead-like in colour, of a blue-grey colour. (L. *plumbum*, lead.)

Plumose, Plumous.—Feather-like; feathery; resembling feathers. (L. *pluma*, a feather.)

Plumiliform.—Shaped like a feather or plume. (L. *pluma*, and *forma*.)

Plump.—Fleshy; swollen; of a stout, solid nature; thick; bulky. (E, or O.L.G., M.E. *plomp*; *plim*, verb to swell out. O.L.G. *plump*, bulky, thick.) See Pinguis.

Plumulose.—When the hairs branch out laterally like feathers. (L. *pl.mula*, a little feather.)

Poculiform.—Cup-shaped. (L. *poculum*, cup, and *forma*, shape.) See Proculiform.

Podeon.—The sixth segment in insects. (Gr.)

Podical plates.—A pair of small plates situated at the side of the posterior ventral anus. (Theobald.) (L. *podicus*, pertaining to a foot.)

Podothecæ.—Leg-cases, that portion of the theca enclosing the legs. (Gr. *pons*, *podus*, a foot, and *theca*, a case.)

Poisers.—Appendages in the place of hind wings, originating directly beneath the callosity of the metanotum. (O.F. *poiser*, to weigh.) See Halteres.

Poison-glands.—The glands secreting the poison, generally two in number connected by a more or less simple duct to the poison-sac.

Poison-sac.—The bag or sac for the reception of the poison secreted by the poison-glands. (Fr. *poison*, from L. *potionem*, acc. of *potio*, a draught.)

Polar cells.—While the primitive-cell segmentation is still in progress, before the formation of the inner-layer, a “polar-cell” is separated from the hinder pole of the egg. This by successive halving divides into eight, which after the formation of the blastoderm, pass through it, and divide into two groups, taking up positions on either side of the hind gut, from these cells the eggs or sperm cells of the developing insect arise. (Gr. *polos*, a pole.)

Polex.—The last dorsal segment of the abdomen.
(Gr. *polos*.)

Pollen-brushes.—The hairs situated on the proximal or first joint of the tarsus of bees.
(L. very fine flour; and F. *brosse*, brush.)

Pollex.—“An inch”; the width of the thumb, an obsolete measure for the determination of the length of large insects. (L. the thumb.)

Polliniferous.—Formed for collecting the pollen of plants; the tarsi of many of the Hymenoptera. (L. *pollen*, and *fero*, to bear.)

Pollinose.—Having yellow dust, like the pollen of flowers. (L. *pollen*, fine flour.)

Politum.—Polished, shining. (L. *politus*, polished).
See Nitidum.

Poly.—Greek, many.

Polygonal, Polygonous.—Having many angles.
(Gr. *poly*, many, and *gonia*, an angle.)

Polymorphous.—Having various and many forms.
(Gr. *poli*, and *morphe*, shape.)

Porcate.—Having several elevated longitudinal parallel ridges; formed in ridges. (L. *porca*, a ridge.)

Porcate.—Possessing deep, broad sulcations.
(L. *porca*.)

Pore.—A minute orifice in the membranous surface by which fluids are exhaled or absorbed; a small interstice between the molecules or particles of bodies. (Gr. *poros*, a passage.)

Pores.—Large isolated punctures. (Gr. *poros*.)

Porose.—Possessing pores. (Gr. *poros*.)

Poriform.—Resembling a pore.—(Gr. *poros*, and *forma*, form.)

Porrect.—(Head.) In observing the relations of the head to the thorax ; the term is used when it projects. Extending forth horizontally. (L. *porrigo*, *porrectum*, to stretch forth.)

Post.—A Latin prefix signifying after, behind.

Post-antennal organ.—A curious and variably shaped organ situated between the eyes and antennæ of the Collembola (*Lipura*). In *Lipura maritima*, it is seen to be composed of from seven to eight spaces or areas of colour, which in the young individuals amount to as many as twenty-two to twenty-four, and are arranged like the seeds of the malvaceous plants. (Tullberg,* Laboulbene.) (L. *post*, *antenna*, and Gr. *ergon*.)

Post-clypeus.—The posterior part of the clypeus. (L. *post*, and *clypeus*.)

Post-costal nerve.—The second principal nerve of the wing, and often the strongest. (L. *post*, and *costa*, a rib, and Gr. *neuron*, a nerve.)

Post-dorsolum.—The intermediate piece between the mesophragma and the post-scutellum. (L. *post* and *dorsum*, back.)

Post-furca.—The internal descending process of the metathorax. (L. *post*, and *furca*, a fork.)

* "Om Skandinavesken Podurider," Upsala, 1869. p. 14.

Postnasus.—That part of the face immediately contiguous to the antennæ, that lies behind the nasus, when distinctly marked out. (L. *post*, and *nasus*, the nose.)

Post-pectus.—The underside of the posterior division of the alitruncus, which is divided into the mesostethium, parapleuræ, metasternum, post-furca, and the opercula. (L. *post*, and *pectus*, the breast.)

Post-pharyngeal glands.—Two groups of finger-shaped salivary glands situated immediately behind the pharynx, and opening into the alimentary duct by a pair of tubular orifices. (L. *post*, *pharynx*, and *glans*, a gland.)

Postretinal fibres.—The fibres arising from the facets of the compound eye and which pass into the ganglionic plate, which is united within by the chiasmatic fibres of the external medullary mass. (L. *post*, *retina*, and *fibra*, a fibre.)

Post-scutellum.—The fourth section of the upper surface of the segment. (L. *post*, and *scutum*, a shield, plate.)

Post-sternellum.—The fourth section of the lower surface of the segment. (L. *post*, and *sternum*.)

Præ.—[See Pre.]

Præpleura, Pleura, Pleurella, Post pleurella.—The first, second, third, and fourth sections respectively of the pleura. These portions are divided by sutural lines, and are rarely distinguishable in more than one segment of an insect. (L. *pre*, and Gr. *pleura*, side.)

Præputium.—The large spherical muscular mass into which the ductus ejaculatorius passes.

Præscutellum, Præscutum.—The plate nearest the head, in the upper surface of the segment when it is divided into four pieces. (L. *pre*, and *scutellum*; and *scutum*.)

Præsternum.—The plate nearest the head in the lower surface of the segment when it is divided into four plates. (L. *pre*, and *sternum*.)

Prasinous, Prosinus.—The colour of the leaves of leeks; light green inclining to yellow; grass-green. (Gr. *prason*, a leek.)

Pre.—A Latin prefix signifying before, or prior in space, time, or degree.

Prebasilaire.—The term applied to the basilaire when it is sloped, and its anterior raised margin swollen into a thick callosity. (L. *pre*, and *basilairis*.)

Premorse.—Having the end bitten off in appearance, or splintery. (L. *pre*, and *morsum*, to bite.)

Preocular (*ant. præoculares*). (Antennæ).—Inserted close to the front of the eyes. (L. *pre*, and *oculus*, an eye.)

Primitive streak or band.—The formation of the embryo in an elongated thickened region of the blastoderm. (L. *primus*, first, and *striga*, a furrow, a streak.)

Pro.—A Latin prefix signifying before, fore, forward, or forth.

Proalæ.—The anterior or fore wings, arising from the sides of the *mesothorax*; they vary greatly in composition, covering and form. (L. *pro*, and *ala*, a wing.)

Proboscis.—A suctorial instrument for conveying food to the mouth. (L. *proboscis*, a snout.)

Proboscis.—The oral instrument of Diptera, in which the ordinary trophi are replaced by an articulated sheath, terminated by the labella, and containing one or more scapella covered by a valve. (L.)

Procephalic lobes.—(Embryol.) The two flaps formed by the first segments of the embryo, dividing; the segments being formed by the primitive streak dividing by transversely impressed lines into segments. (L. *pro*, and Gr. *kephale*, the head.)

Procerebral bridge.—A band uniting the two halves of the brain. (L. *pro*, and *cerebrum*.)

Procerebral lobes.—The two fused nerve lobes of the procerebrum.

Procerebral mass.—The mass of nerve centres, nerves, and ganglia constituting the procerebrum, they are: the procerebral lobes; optic ganglia; postretinal fibres; ganglionic plate; external chiasma; external medullary mass; internal chiasma; internal medullary mass; mushroom bodies; procerebral bridge, and the central body.

- Procerebrum.**—The fore-brain composed of the procerebral mass. (L. *pro*, fore, and *cerebrum*, brain.)
- Process.**—A projection, or any protuberance. (L. *pro*, before, and *cedere*, to go. **Der.** *process*, mod. F. *procès*.)
- Proctodæum.**—The hind gut, comprising the small intestine, colon, and rectum. (L.)
- Proculiform.**—Hollow and cylindrical, with a hemispherical base, the sides at the top being straight and not curved.
- Procumbent.**—Trailing; prostrate; lying flat. (L. *pro*, and *cumbo*, to lie.)
- Produced.**—Drawn out, prolonged, extended, exhibited. (L. *pro*, and *duco*, to draw or lead.)
- Productile.**—Capable of being lengthened out. (L. *pro*, and *ductus*.)
- Prolegs.**—Fleshy pediform organs, which serve various larvæ in place of legs. (L. *propeides*.)
- Prominent.** (Head.)—In observing the relations of the head to the thorax; the term is used when they form one plane. (L. *pro*, and *mineo*, to jut.)
- Promuscis.**—Rostrum, proboscis; the oral instrument of “flies.” (L. *pro*, and *musca*, a fly.)
- Promuscis.**—The oral instrument of Hemiptera in which the ordinary trophi are replaced by a jointed sheath, covered above at the base by

the labrum, without labella at the end, and containing four long capillary lancelets, and a short tongue. It includes the vagina and scapella. (L. *pro*, and *musca*, a fly; apparently the word fly is used for any insect that might look like a fly.)

Prone.—When an object lies upon its belly. (M.F. *prone*—L. *pronus*, acc. of *pronus*, not erect.)

Prone surface (Superficies).—The *under*-surface.

Pronotum.—The upper surface of the prothorax.

Propedes.—The fore or anterior legs. (L.)

Propedes. (Larvæ).—Ventral and anal legs, or prolegs. (L.) See Prolegs.

Prophragma.—A thin partition which descends from the anterior margin of the mesothorax into the cavity of the trunk and separates the anterior segment from the intermediate one. (Gr. *pro*, and *phragma*, an enclosure.)

Propleura.—The two lateral surfaces of the prothorax. (Gr. *pro*, and *pleura*, a side.)

Propneustic.—A term given to one of the intermediate types between the holopneustic and apneustic tracheal systems:—When only the most anterior pair of spiracles are open. (Pupa of *Culex*, *Corethra*, etc.) (L. *pro*, and Gr. *pneuma*, air.)

Propodeon.—The fifth segment in insects. (L. *pro*, and Gr. *pous*, from *podus*, foot.)

- Propodeonis scutum.**—The scutum of the propodeon. (L. *propodeon*, and *scutum*, a shield.)
- Propodeum.**—The first abdominal segment, which in Hymenoptera exclusive of the Phytophaga, forms a part of the thorax. (L. *pro*, and Gr. *pous*, from *podos*, foot.)
- Propolis.**—A substance formed and used by bees in the hives; the product of resinous substances of the buds of trees, etc. (Gr. *pro*, and *polis*, a city.)
- Propygidium.**—Penultimate dorsal segment of the abdomen, visible in certain Histeridæ, etc., to which it is applied. (L. *pro*, and Gr. *pygidium*.)
- Prostheca.**—A subcartilaginous process attached to the inner side, near the base, of the mandibulæ; seen in some of the Coleoptera. (Gr. *pro*, and *theca*, a case.)
- Prosternum.**—The under surface of the prothorax. The central prominent ridge of the antepectus. (L. *pro*, and *sternum*.)
- Protellum.**—The eleventh segment in insects. (Gr. *pro*, before, and from *telos*, the end.)
- Prothroacis cerebroida.**—The second cerebroida. (L. *pro*, and *thorax*, and from *cerebrum*, a brain.)
- Prothroacis nervi dorsalis.**—The two nerves ascending to the back from the mesothoracis cerebroida. (L. *prothorax*, and *nervus*, a nerve, and *dorsum*, the back.)

- Prothoracis scutum.**—The scutum of the prothorax. (Gr. *protos*, first, and *thorax*, and L. *scutum*, a shield.)
- Prothoracotheca.**—The prothoracic-case, that portion of the theca enclosing the prothorax. (Gr. *protos*, *thorax*, and *theca*, a case.)
- Prothorax.**—The second segment in insects; the first or anterior segment of the thorax. (L.—Gr. *protos*, first, and *thorax*, the breast, breast-plate, chest, etc.)
- Protocerebral lobes.**—The head nerve lobes situated in front of the mouth. (Gr. *protos*, first; *cerebron*, the brain; and *lobos*, a lobe.) See Protocerebron.
- Protocerebron.**—The fore brain, consisting of the central masses—the mushroom bodies, optic trunk, and lobes. (Gr. *protos*, first, and *cerebron*, the brain.)
- Protopodite.**—The first part of the maxilla. (Gr. *protos*, first, and *podos*, a foot.)
- Protuberant.**—Projecting; of any irregularity of the surface. (L. *protuberans*, from *protubero*, to bulge out.)
- Proventricular valvule.**—The œsophageal valve.(?)
- Proventriculus.**—The fore-stomach; it is very muscular, being lined with chitin, which is usually provided with numerous teeth arising from the folds. These folds begin in the œsophagus or crop, and end at the commencement of the mid-intestine. (L. *pro*, and *ventriculus*, the belly.)

Prozona.—The anterior portion of the pronotum of the Elatidæ. (L. *pro*, and *zona*, a belt.) See Melazona.

Pruinose.—Covered with minute dust, as if frosted. (L. *pruina*, hoar-frost.)

Prunus, Prunosus.—Reddish-blue, with a whitish covering, like the bloom of ripe plums. (L. *prunus*, a plum tree.)

Pselaphotheca.—Palpi-cases, two conical processes arising in front of the eyes of pupæ; that portion of the theca enclosing the palpi. (Gr. *pselaphao*, to feel (*palpi-feelers*), and *theca*, a case.)

Pseudo.—A Greek prefix signifying false, or spurious.

Pseudocone.—Eyes that have the four cone-cells filled with transparent fluid, but are not fused together to form one true cone. (Eyes of Diptera.) (Gr. *pseudo*, and *konos*, a cone.)

Pseudonychia.—Spurious claws; two stiff claw-like bristles which terminate the plantula. (Gr. *pseudo*, and *onyx*, the nail.)

Pseudotetramerous.—Having apparently four joints, though in reality five are present. (Gr. *pseudo*, *tetra*, four, and *meros*, a part.)

Pseudotrimerous.—Having apparently three joints, though in reality four are present. (Gr. *pseudo*, *tri*, three, and *meros*, a part.)

- Pseudova.**—Unimpregnated eggs which produce young; virgin ova. (Gr. *pseudo*, and L. *ova*, eggs.)
- Pterigostia.**—“Wing bones,” the nervures. (Gr. *pteri*, a wing, and *osteon*, a bone.)
- Pteropega.**—The wing-sockets, situated on the dorsolum. (Gr. *pteron*, a wing, *peza*, from *pous*, the foot.)
- Pterostigma.**—The name given to the second costal cell of the wing when it is opaque. (G. *ptero*, a wing, and *stigma*, a mark.)
- Pterothecæ.**—(Pupæ.) The wing cases, that portion of the theca enclosing the wings. (Gr. *pteron*, a wing, and *theca*, a case.)
- Pterygium.**—Small wing-lobes seen upon the base of the underwings. ex. Lepidoptera. (From Gr. *pteron*, a wing.)
- Pterygodes.**—Latreille’s term for the tegulæ. (From Gr. *pteron*.)
- Pterygoid.**—Wing-like. (Gr. *pteron*, a wing, and *eidōs*, like.)
- Ptilinum.**—A large bladder-like organ which is pushed out through the frontal suture when the adult is going to emerge from the puparium.
- Pubescent.**—Furnished with shining hairs or down. (L. *pubes*, hair, **Der.** *pubescence*, sb. due to *pubescent-*, stem of pres. pt. of *pubescere*, to arrive at puberty.)

Pulmonaria.—The pulmonary spaces. (L. *pulmonarius*, from *pulmo*, a lung.) See Pulmonary space.

Pulmonary space.—Two longitudinal soft places on each side of the back of the abdomen, which are capable of tension and relaxation, and where they exist, the dorsal spiracles are planted. (L. *pulmonarius*.)

Pulverulent.—Dusty; consisting of fine powder; (L. *pulverulentus*, from *pulvis*, *pulveris*, dust, powder.) See Polinose.

Pulvilli.—Soft cushions on the underside of the tarsi. (L. *pulvinus*, a cushion.)

Pulvinulus.—Soft balls at the ends of the tarsi. (L. *pulvinus*.)

Puncto-striatus.—Punctured longitudinal straight lines. (L. *pungo*, *punctum*, to prick, and *stria*, a furrow.)

Punctum.—A spot. (L.)

Puncture.—A small depression on the surface, usually round. (L. *punctura*, a prick, a puncture.)

Punctate.—Furnished with punctures. (L. *punctura*.)

Punctate-striate.—Rows of punctures imitating and taking the place of striae, opposed to striate-punctate, with loose punctured striae. (L. *punctum*, and *stria*, a furrow.)

Punctation, Punctuation, Puncturation.—Covered with punctures; possessing punctures. (L. *punctura*.)

- Punctiform.**—Possessing a small impression or fovea, larger than an ordinary puncture. (L. *punctum*, a spot, and *forma*, form.)
- Punktsubstanz.**—The fibrillar substance composing the calyces of the mushroom bodies. (Kenyon.)
- Puniceus.**—Bright red with a violet tint. (L. red, reddish.)
- Pupa.**—The third stage of an insect's life; the chrysalis stage, the apparently torpid state before an insect assumes its wings. (L. *pupa*, a chrysalis. L. *pupa*, a girl, hence undeveloped insect.)
- Pupæ adhærenæ.**—Adherent pupæ; pupæ which hang perpendicularly with their heads downward. (L. *pupa*, and *ad*, and *hæreo*, *hæsum*, to stick.)
- Pupæ angulares.**—Pupæ possessing a process like a pyramid, or nose, on the back. (L. *pupa*, and *angulus*, an angle.)
- Pupæ conicæ.**—Conical pupæ in contra-distinction to angular pupæ. (L. *pupa*, and *conicus*, conical.) See Pupæ angulares.
- Pupæ contignæ.**—Bound pupæ; pupæ which remain upright against a vertical object, and supported thus by a delicate filament passed transversely across the thorax. (L. *pupa*, and *contigno*, to bind.)
- Pupæ custodiatæ.**—Guarded pupæ; pupæ which are incased, but the cocoon remains partially open. (L. *pupa*, and *custos*, a keeper.)

- ***Pupæ excaratæ.**—Excarate or sculptured pupa ; pupæ in which the limbs of the perfect insect are observed to lie free, though still closely attached to the body. (L. *pupa* ; *ex*, out, and *caro*, *flesh*.) See *Mumiæ pseudonymphæ*.
- Pupæ folliculatæ.**—Incased pupæ ; pupæ which repose in cases artificially prepared by the larvæ. (L. *pupa*, and *follis*, a bag.)
- Pupæ larvatæ.**—Masked pupæ, pupæ whose general enclosure is a horny case, but upon which the different parts of the future insect are traced in lines. (L. *pupa*, and *larva*, a mask.)
- Pupæ nudæ.**—Naked pupæ ; pupæ which freely lie, hang, or are in no way fastened or attached in their particular element. (L. *pupa*, and *nudus* naked.)
- Pupæ obtectæ coarctatæ.**—Coarctate and obtected pupæ ; pupæ which are closed in a firm, egg-shaped, corneous case, and which do not in the least indicate the parts of the perfect insect. The surrounding case is the dried skin of the larva, and the true pupa lies inclosed beneath it. (L. *pupa* ; *ob.*, and *tectum*, to cover.) See *Obtect pupæ*.
- Pupæ subterraneæ.**—Subterraneous pupæ ; pupæ which pass this period of their life buried underground. (L. *pupa* ; *sub*, under, and *terra*, the earth.)

* *Mumia*, so called by Lamarck.

Pupal sac.—The thin, semi-transparent membrane enveloping the head and thorax of the pupæ of *Anopheles maculipennis*. (Nuttall and Shipley.) (L. *pupa*. and *sac*.)

Puparium.—The secretory covering of many Coccidæ. The last larval skin which, in the case of Diptera, protects the pupa. (L. *pupa*.)

Pupation.—The period occupied in changing from the larva or nymph into the imago. The third stage of an insect's life; the period of histology. (L. *pupa*.)

Pupil, Pupilla.—The central spot of the ocellus. (L. *pupillus*.)

Pupiparous.—Bringing forth pupæ. (L. *pupa*, and *pario*, to bring forth.)

Purpureal.—Purple. (Gr. *purpura*.)

Purpureus.—(Gr. *purpura*.) See Puniceus.

Pustule.—A point of large circumference. (L. *pustula*, a blister, pimple, etc.)

Pustulate, Pustulosus, Pustulous.—Covered with pustules; poc-like. (L. *pustula*.)

Pygidium.—The last dorsal segment of the abdomen. (Gr. *pygidion*, dimin. from *puge*, the the rump.)

Pygidium.—A horny chitinous organ of very variable shape, situated between the last dorsal and ventral sclerites; between the branches of the forceps of the *Elatidæ*.

(Coccidæ.)—The compound terminal segment of the Diaspinæ and Conchaspinæ; the last ventral segment. (Gr. *pygidion*.)

Pygofer.—The compound terminal segment of the abdomen of the Homoptera.

Pyramidal, Pyramidale, Pyramidate.—Resembling a pyramid in shape; angular. (L. *pyramis*, a pyramid.)

Pyramidate fascia.—An angled fascia. (L. *pyramis*, and *fascia*.)

Pyriform, Pyriforme.—Pear-shaped. (L. *pyrum*, a pear, and *forma*.)

Qua.—Latin adjective meaning as being.

Quadrate.—Square.—(L. *quadratus*, square, from *quatuor*, four.)

Quadri.—In composition indicates four, *i.e.* quadrimaculate, with four spots.

Quadricapsular.—Having four capsules. (L. *quadri*, four, and *capsula*, a capsule.)

Quadridentate.—Having four teeth. (L. *quadri*, and *dens*, a tooth.)

Quadrinaculate.—Possessing four maculæ. (L. *quadri* and *macula*, *æ*, a spot.)

Quadripartite.—Divided into four parts to the base (L. *quadri*, and *pars*, a part.) See Partite.

Quadripinnate.—With four feather-like branches, or clefts. (L. *quadri*, and *penna*, a feather.)

Quadrivalvate, Quadrivalvula.—Four-valved. (L. *quadri*, and *valvæ*, a folding-door.)

Radial cellule.—A portion of the membrane of the wing, situated near the apex, included between the exterior margin and a nervure which originates at the carpus and passes, with various degrees of curvature, towards the apex. (From L. *radius*, a ray, and *cella*, a cell.)

Radial nervure.—A radiating or cross nervure of the wing. (L. *radius*, and Gr. *neuron*, a nerve, cord.)

Radiate.—When a dot, spot, etc., appears to throw off rays; *ex.* the large blue area common to the wings of *Papilio*. (L. *radius*.)

Radicle.—The basal joint of the antennæ. (Fr. from L. *radix*, a root.)

Radicula.—The radicle. The basal joint of the antennæ (Say). (L. a small root.)

Radio-medial nerve.—A transverse or cross-nervure of the wing connecting the radial and medial nerve systems. (L. *radius*, *medius*, the middle, and nerve.)

Radius.—The area lying between the costal cell or area, and the media of the wing. (L. a ray.)

Radius.—The first nervure of the exterior edge of the superior wing; it extends from the base to the carpus, and is separated from the cupitus, by a membrane. (L.)

Ramosæ.—(Antennæ). When setaceous or moniliform, but having long branches from several of the joints. (L. *ramosus*, full of branches.)

Ramose.—Branching; branched; possessing branches; resembling branches. (L. *ramosus*.)

Raptorial, Raptorious.—Adapted for seizing and devouring prey. (L. *raptor*, a robber, from *rapio*, to rob.)

Re-—A Latin prefix, signifying back.

Receptacula ovarum.—Portion of the female genitalia, the receptacle holding the eggs or ova. (L. *receptaculum*, and *ovum*.)

Reclivate.—Curved in a convex, then in a concave line. (L. *re*, and *clivus*, a projection, a hill.)

Recondite.—(Aculeus.)—Concealed within the abdomen, seldom exposed to view. (L. *re*, and *condo*, to put together.)

Rectate.—Straight; straightly upright. (L. *rectus*, straight.)

Rectigrade.—Larvæ which have sixteen legs, and can walk with a rectilinear body. (L. *rectus*, and *gradus*, a step.) See Geometræ.

Rectum.—The short dilated terminal part of the intestines connecting with the anus. * (L.) See Intestines.

Recurrent nerve.—A single median nerve cord arising from the caudal border of the frontal ganglion, extending back beneath the supra-oesophageal ganglion to the vagus, or ventricular ganglion. (L. *re*, and *curro*, to run.)

- Recurvate, Recurved.**—Bent or bowed backwards. (L. *re*, and *curvus*, curved.)
- Recurvate.**—Bowed, or bent downward. (L. *re*, and *curvus*.)
- Recuspine.**—Having the points in a backward direction. (L. *re*, and *cuspis*, a point.)
- Reflex.**—Bent up, opposed to deflex. (L. *re*, and *flecto*, *flectum*, to bend.)
- Reflexed.**—Having raised margins. (L. *re*, and *flecto*, *flectum*.)
- Remiform.**—Oar-shaped. (L. *remus*, an oar, and *forma*.)
- Remiped.**—With oar-shaped feet; *ex.* aquatic insects whose legs serve as oars. (L. *remus*, and *pes*, foot.)
- Remote.**—Further removed than distant; not near, (L. *remotus*, from *removeo*, to remove.)
- Reniculus.**—A small kidney-shaped spot of colour. (L. *renis*, a kidney.)
- Reniform.**—Having the form or shape of the kidneys. (L. *renes*, kidneys, and *forma* form.)
- Repand.**—Cut into very slight sinuations, so as to run in a serpentine direction; having an uneven sinuous margin. (L. *re*, and *pando*, to spread.)
- Repandous.**—Bent upward; crooked. (L. *re*, and *pando*.)

- Replicate.**—Refolded, doubled back or down. capable of being folded back. (L. *re*, and *plico*, to fold.)
- Resilient.**—Having the property of springing back. (L. *resilio*, to leap back.)
- Respiratory nerves.**—The lateral branches arising from the median nerve and extending laterally over the nerves of the central or main nervous system. (L. *respiro*, to breathe, from *re*, again, and *spiro*, to blow; and nerve.)
- Resuspinate.**—Upside down; horizontally reversed. (From L. *re*, and *suscito*, to raise.)
- Reteacious.**—Resembling network. (L. *rete*, a net.)
- Reticular.**—Having the form of network. (L. *reticulum*, a little net.)
- Reticulate.**—Covered with a network of lines or cross striæ; netted; resembling network. (L. *reticulatus*, from *reticulum*.)
- Reticulate.**—(Egg.) Sculptured. (L. *reticulatus* a net.)
- Reticulose, Reticulated.**—Having a number of minute impressed lines which intersect one another like the meshes of a net. (L. *reticulatus*.)
- Retina.**—A retiform expansion of the optic nerve of the eye, which receives the impressions conveyed through the transparent *facets*, *cones*, and *rods*, and gives rise to vision. (L. *retina*, so called because it resembles network. Coined from *reti*—for *rete*, a net.)

- Retinal.**—Pertaining to the retina. (L. *retina*.)
- Retinaculum.**—Horny movable scales with which the *spicula* are furnished, serving instead of muscles to prevent it being darted out too far. (L. a stay ; from *retino*, to hold back, and *aculeus*, a sting.)
- Retinula.**—Elongate nerve-cells in the structure of the eye. (L. *retina*.)
- Retracted** (*retractum*).—(Head.) When it is concealed as far as the brow within the thorax. (L. *re, traho, tractum*, to draw back.)
- Retractile.**—Capable of being produced and withdrawn. (L. *retractum*.)
- Retractile.**—(Head.) When a *concealed* head can be pushed forwards at the will of the insect. (L. *re*, and *traho*, to draw.)
- Retractores ventriculi.**—The delicate retractor muscles which assist in supporting the alimentary canal. (L.)
- Retractum.**—(Head.) [See Retracted.]
- Retro.**—A Latin prefix signifying backwards.
- Retrorsum.**—(Direction.) Backwards ; in a backward direction. (L.)
- Retrose.**—Backward ; in a backward direction. (L. *retro*.)
- Retuse.**—Possessing blunt impressions, as if beaten into the surface. (L. *re*, and from *tundo, tusum*, to beat.)

Reverse.—When an object is viewed with the *anus* towards you. (M.E. *reuers* (*revers*).—O.F. *revers*.—L. *reuersus*, lit. turned backwards. L. *re-*, back, and *uertere*, to turn.)

Reviviscence.—The awakening from torpidity, the restoration from suspended animation. (L. *reviviscens*, from *revivisco*, to come to life again, to revive.)

Revoluted.—Rolled or curled back. (L. *re*, and from *voluto*, to roll.)

Rhabdites.—The three pairs of slender non-articulated tubercles constituting the ovipositor. (Gr. *rhabdos*, a rod.)

Rhabdom.—The nerve rod supporting the apex of the blunt crystalline cone of the eye. (Gr. *rhabdos*.)

Rhabdomeres.—The sections of the rhabdom. (From Gr. *rhabdos*.)

Rhabdopoda.—The genital claspers. (Packard.) (Gr. *rhabdos*, and *pod*, *pedis*, a foot.)

Rhinarium.—The nostril-piece; the space between the anterior margin of the *nasus* and the *labrum*. This is remarkable in some Lamellicorn beetles, as *Anoplognathus*, Leach. (Gr. *rhis*, *rhinos*, the nose.)

Rhomboid, Rhomboidal.—Quadrilateral with the sides equal, but two opposite angles *acute* and two *obtuse*. Lozenge-shaped. (Gr. *rhombos*, from *rhembo*, to whirl round.) See **Lozenged**.

Rigid.—Hard, which does not bend or yield to pressure; stiff, not pliant; inflexible. (L. *rigeo*, to be stiff.)

Rimose, Rimous.—Chinky, resembling the bark of a tree. Having a number of minute, narrow, and nearly parallel excavations, which run into each other. (L. *rimosus*, from *rima*, a cleft.)

Rivose.—When furrows do not run in a parallel direction, and are rather sinuate; marked with sinuate furrows. (L. *rivus*, a stream.)

Rod (of the eye).—[See Rhabdom.]

Rorulent.—Like dew-drops. (L. *ros*, *roris*, dew.)
See Polinose, and Pulverulent.

Rorulent.—Covered with a bloom, like that of a plum, which may be rubbed off. (L. *rorulentus*, from *ros*, *roris*.)

Rosaceous.—(Scent.) A smell of roses. (L. *rosa*, a rose.)

Roseous, Roseus.—Rose colour. (L. *rosa*.)

Rostellum.—The oral instruments of *Pediculus*, and some other *Aptera*, in which the ordinary trophi are replaced by an exarticulate retractile tube, which controls a retractile siphuncle. It includes the tubulus, and siphunculus. (From L. *rostrum*, a beak, mouth.)

Rostral filaments.—The four hair-like processes which together form the sucking-tube or sucking mouth of the *Coccidæ*. (L. *rostrum*, and *filum*, a thread.)

Rostrate.—In the form of a rostrum. (L. *rostrum*.)

Rostrulum.—The oral instrument of Aphaniptera (Pulex L.), in which the ordinary trophi are replaced by a bivalve beak, between the valves of which there appear to be three lancets. It includes the laminæ, scalpella, and lingula. (L. *rostrum*.)

Rostrum.—Prolongation of the head between the eyes to a nose or beak. (L. a mouth.) See Proboscis.

Rostrum.—The upper part of the mouth of Coccidæ, from which spring the rostral filaments. (L.)

Rotative, Rotatory.—(Motion.) When capable of turning wholly round, describing a circle. (L. *rota*, a wheel.)

Rotundate.—When the margins pass gradually into each other, and do not meet in sharp angles. (L. *rotundus*, round.)

Ruber.—Clear unmixed red. (L. red.)

Rubescens.—Possessing a rose-coloured pubescence. (From L. *rubeo*, to be red.)

Rubineous.—(Splendour.) The red splendour of the ruby. (From L. *ruber*.)

Rubricans.—A bay or gray-black colour. (L. *ruber*, red.)

Rudimentary.—Undeveloped. (L. *rudimentum*.)

Rufescens.—Somewhat reddish. (L. *rufus*, red.)

Rufose, Rufous.—A brownish-red colour. (L. *rufus*.)

Rufus.—Coppery in colour. (L.)

Rugged.—When a surface shows a raggedness or roughness due to mucros, spines, and tubercles being intermixed. (M.E. *rugged*.)

Rugose, Rugous.—Wrinkled; full of wrinkles. (L. *rugosus*, full of wrinkles, adj. from *ruga*, a wrinkle.)

Rugosissimus.—Very uneven. (L.)

Rugulose.—Slightly wrinkled. (L. *ruga*.)

Rumules.—Teat-like fleshy protuberances observable on the bodies of various larvæ. (Kirby and Spence. (L. *ruma*, a teat.)

Rursus.—(Direction).—Backwards. (L. *rursus*, backwards.) See Antrursum.

Rypophagous.—Filth-eating. (Gr. *rupos*, filth, and *phago*, to eat.)

Sac.—A small bag or bladder. (L. *saccus*, a bag.)

Saccate.—Gibbous, or inflated towards one end. (L. *saccus*.)

Sagittæ.—The inner pair of forceps of the Hymenopterous genitalia, lying between the stipites. (L. *sagitta*, an arrow.)

Sagittate.—Shaped like the head of an arrow. (L. *sagitta*.)

Salebrous, Salebrosa.—Rough, rugged. (L. *salebrosa*, an uneven road.) See Rugged.

Saliva.—Fluid excreted by the salivary glands. (L.)

Salivary glands.—A thin, leaf-like mass composed of two large lobes, and a thin, smaller lobe situated on either side of the gullet. (L. *saliva*, the fluid excreted by the salivary glands, and *glans*, an acorn.)

Salivary nerves.—Two thread-like nerves arising from the caudo-lateral border of the œsophageal ganglion, entering the prothorax, where they turn and branch off to the sides. (L. *saliva*, and *nervi*, a nerve.)

Saltatorial.—Adapted for leaping; possessing the ability to leap. (L. *saltatorius*, from *saltator*, a dancer.)

Saltatorial appendage.—The great appendage, attached, in most cases, to the penultimate segment of the Collembola, and consists of a basal segment, and two branches, which are sometimes two-jointed, and sometimes of a single piece only. The appendage is usually turned forwards, the basal portion reaching as far forward as the catch.

Sanguine.—Having the colour of blood. (L. *sanguis*, blood.)

Sanguineous.—Blood-like in colour. (L. *sanguis*.)

Sanguinivorus.—Subsisting on blood. (L. *sanguis*, and *voro*, to devour.)

Saprophagous.—Feeding on putrid animal and vegetable substances. (Gr. *sapros*, putrid, and *phago*, to eat.)

Saprophitic.—Living on dead or decaying matter. (Gr. *sapros*.)

Saprophyte.—That which lives on dead or decaying vegetable matter. (Gr. *sapros*, and *phyton*, a plant.)

Sarcolemma.—The thin transparent sheath-like membrane surrounding the muscle-fibres. (Newman.) (Gr. *sarx*, flesh, and *lemma*, a scale, that which is peeled off.)

Sarcophagous.—Feeding on flesh. (Gr. *sarx*, and *phago*, to eat.)

Saturatus.—Implies a colour is deep and full. (L. *satur*, full.)

Scabbed, Scabby.—Possessing roughnesses ; rough. (L. *scabo*, to scratch.)

Scaber.—Covered with an irregular rugosity. (A.S. *scæb* ; from L. *scabo*, to scratch.)

Scabrous.—With small raised dots ; rough, like a file ; rough, rugged ; having sharp points. (L. *scabo*.)

Scale.—The secretory covering of various coccids. Used also as a general term for scale-insects.

Scales.—Small thin variously shaped membranous or horny outgrowths, or modifications of the cuticle. The scales of the Culicidæ vary much in shape, and are of great importance,

for the classification of this group of Diptera is chiefly based upon the differences of the scales, and their positions upon the body. (M.E. *scale*.—O.F. *escale*.—O.H.G. *scala*.—A.S. *scealu*, *scalu*, shell, husk, scale.)

Scalloped.—Having the edge marked by rounded hollows, without intervening angles. (M.E. *skalop*.—O.F. *escalope*, a shell. Allied to SCALE. **Der.** verb. to cut an edge into scallop-like curves.)

Scalpella.—The lancets, a pair of instruments more slender than the cultelli, found in the structure of the haustellum. (L. *scalpellum*, dimin. of *scalprum*, a knife.)

Scansorial. Adapted to climbing. (L. *scansum*, to climb.)

Scape, Scapus.—The first joint of the antennæ, it includes the bulbus. (L. *scapus*, a shaft.)

Scapella.—The lancets; four pieces adapted for perforating the food, which, when united, form a tube for sucking purposes. The upper pair represent the mandibulæ, and the lower the maxillæ. (L.)

Scaphiform.—Boat-shaped. (Gr. *skaphe*, anything hollow (*skaphe*—boat-shaped), and *forma*, shape.)

Scapulae, Scapularia.—Small plates situated on either side of the peristethium exteriorly, and which are sometimes soldered to it. (Knoch.) (L. *scapula*, the shoulder plate or blade.)

Scelerites, Sclerites.—The chitinous plates constituting the hard surface of an insect. The chitinous plates into which certain parts of the external skeleton (*e.g.*, the mesonotum of Coleoptera) are divided. (Gr. *skeleros*, hard.)

Sclerites of the hypopharynx.—(Hymenoptera). Two narrow sclerites extending from the oral groove, close to the articulation of the cardines, down to the base of the mentum, passing between the maxillæ, to whose basal membrane they appear to be attached. (Saunders.)

Scolopal body.—The chitinous cone or rod secreted by the chordotonal organs and retained in the cytoplasm. (*Scale*).

Scopa.—A small brush-like appendage, or variation of the surface markings; the hair of the brush being short, stiff, and of equal length. (L. a brush, broom.)

Scopate.—Covered with scopæ.—(L. *scopa*, a brush or broom.)

Scopiferous.—(Antennæ.) Possessing a thick brush of hair upon some place or part of its structure. (L. *scopa*; and *fero*, to bear.)

Scopiform.—In the form of a brush. (L. *scopa*, and *forma*, form.)

Scopiped.—When the pulvilli or pulvinuli are so covered with hair as to appear brush-like. (L. *scopa*, and *pes*, a foot.)

Scoriaceous.—Ash-like in colour ; when the granulations of the surface resemble ashes. (Gr. *scoria*, dross, ashes.)

Scorpionidæ.—A family of Arachnoida, including scorpions, etc. (F.—L.—Gr.) (F. *scorpion*.—L. *scorpionem*, acc. of *scorpio*, the same as *scorpius*.—Gk. *skorpios*, a scorpion.)

Scriptus.—Lettered, marked, with characters resembling letters. (L. from *scribo*, to write.)

Scrobes.—Lateral furrows on the rostrum, holding the base of the antennæ, when at rest. (L. *scrobs*, a trench.)

Scrobiculate.—Pitted ; having the surface covered with hollows ; with deep round pits. (L. *scrobiculus*, a little ditch.) See Foveolate.

Scrotiform.—Purse-shaped. (L. *scrotum*, a bag, a purse, and *forma*, shape.)

Sculpture.—Modifications of the surface. (L. *sculpo*, *sculptum*, to carve.)

Sculpture.—(Pupæ.) (L. *sculpo*, *sculptum*.) See Pupæ exarataæ.

Scuta.—Corneous plates on the segments. (L. *scutum*, a shield.)

Scutate.—Covered with large flat scales. (L. *scutatus*, from *scutum*.)

Scutcheon.—The scutellum. (From L. *scutum*.)

Scutel.—The scutellum (Say.) (L. *scutum*.)

Scutellary.—Pertaining to the scutellum. (L. *scutum*.)

Scutellate.—Divided into surfaces like little plates (L. *scutella*, a salver.)

Scutellum.—The third section of the upper surface of a segment, very prominent on the thorax, especially in Coleoptera of which it is the only visible portion of the mesonotum. (From L. *scutum*.)

Scutiform.—Having the form of a shield, or plate. (L. *scutum*, and *form*, shape.)

***Scutum.**—The upper or dorsal surface of a segment. The plate lying between the præscutum and scutellum on the upper surface of a segment when it is divided into four pieces. (L. a shield.)

Second maxillæ.—The labium.

Secretion.—Matter produced by the various glands of the body. (L. *secretus*, set apart; pp. of *secernere*, to separate. **Der.** *secrete*, verb. from L. *secretus*; *secret-ion*.)

Secretionary covering.—That part of a Diaspid puparium covering the exuviæ.

Sectores coconis.—A cocoon-breaker, of the attacine moths, a pair of large stout spines, one on each side of the thorax, at the base of the forewings, and provided with five or six teeth on the cutting edge. (L. *sector*, a cutter, and *coconis*.)

Securiform.—Having the form of an axe. (L. *securis*, an axe, and *forma*, form.)

* The scutellum of some authors.

Securi palpata.—Palpi which have the last joint broadly triangular, and which hangs by a point to the preceding joint. (L. *securus*, from *se*, free, and *cura*, *care*, and *palpa*, a jointed feeler).

Segmentation nucleus.—The nucleus formed by the union of the male pronucleus with the female pronucleus. (L. *segmentum*, a piece cut off,—*secare*, to cut; *nucleus*, from *nux*, a nut.)

Segments.—The great inosculating joints of the body. (L. *segmentum*, from *secare*, to cut.)

Semen.—The seed or prolific fluid of males; sperm; seminal fluid or spermatozoa; the secretion of the testes. (L. seed.)

Semi.—A Latin prefix signifying half.

Semiglobate, Semiglobose.—Having the form of half a globe; semi-spherical. (L. *semi*, half, and *globus*, a globe, sphere, etc.) **Semiglobosum, Hemispherical.**

Seminal tubes, or pouches.—Several tubes or pouches situated at the end of the *vas deferens*. (L. *semen*, seed.)

Seminal vesicles.—[See Sperm vesicles.]

Septum.—A division separating two cavities. (L. an inclosure.)

Septula.—The lesser ridges and partitions raised on the surfaces of the metaphragma, and on those of other parts of the cavities of the trunk for the attachment of muscles. (L.)

- Seriaceous.**—Possessing a silk-like gloss, usually due to the presence of minute dense hairs. (L. *sericum*, silk.)
- Sericate, Sericatus, Sericeous.**—Covered with soft, short, thick, silky down, resembling silk or satin, in splendour. (L. *sericum*.) See Holosericeous.
- Serosa.**—The outer membrane continuous with the blastoderm which protects the developing embryo. (From L. *serum*.)
- Serrate, Serrulate.**—Notched on the edge like a saw. (L. *serra*, a saw.)
- Serriform.**—Saw-like; possessing notches, markings, etc., like the teeth of a saw. (L. *serra*, and *forma*.)
- Serrulate.**—Finely serrate, having very minute teeth or notches. (L. *serra*.)
- Sesqui.**—A Latin prefix signifying a whole and a half.
- Sesquialter.**—One and a half. (L.)
- Sesquialterous ocellus.**—An eye of colour with a smaller one near it, which is called *sequiocellus*. (L. *sesqui*, and *alter*, another.)
- Sesquialterous fascia.**—When both wings are traversed by a continued fascia. (L. *sesqui*; *alter*, and *fascia*.)
- Sesquiocellus.**—A large ocellus including a smaller one.—(L. *sesqui*, and *ocellus*, an eye.)
- Sesquitertial.**—Occupying the fourth part. (L. *sesqui*, and *tertius*, third.)

- Sesquiteritious fascia.**—When a wing or elytrum contains a fascia, and the third of a fascia. (L. *sesqui*, and *tertius*, third, and *fascia*.)
- Sessile.**—Without a notch, or stalk. (L. *sessilis*, that stands firmly.)
- Seta.**—A long outstanding bristle or hair. (L. a bristle.)
- Setaceous.**—Gradually tapering to the tip. Like a bristle. (L. *seta*.)
- Setiferous, Setiform, Setigerous, Setose.**—Set with, or bearing setæ.
- Setiform.**—Bristle-shaped. (L. *seta*, and *form*, shape.)
- Setiformis.**—When the central lobe of a trifid lingula is very long, and appears to resemble a bristle. (L. *seta*, and *forma*.)
- Setigeræ.**—(Antennæ.) When the basal joints are large, and the remainder form into a kind of bristle. (L. *seta*, and *gero*, to bear.)
- Setulose.**—With *truncated* setæ. (Dimin. of L. *seta*.)
- Shadow.**—(M.E. *shade*, *shadwe*.) See Umbra.
- Shagreened.**—Covered with closely set roughnesses or unevennesses, like a shark's teeth, giving the appearance of rough-grained leather. (F.—Turkish. F. *chagrin*. This leather was orig. made of the skin of the back of the horse. Turk. *saghri*, *saghri*, shagreen.)

Shank.—The tibia (Dan. *shank*. Swed. *shank*, a bone of the leg. **Der.** *skink*.) See Tibia.

Sheath.—An organ generally pertaining to the instrumenta suctoria. (A.S. *sceath*.)

Shellac.—A secretion formed by insects (coccidæ) which is of a glutinous nature. Valuable in the manufacture of hats. Used for varnishes, sealing wax, lacquer work, etc. (A.S. *scell*, and Pers. *lac*.)

Sigma.—The name of the Greek letter Σ , σ , s , equal to the English S.

Sigmoidal.—S-shaped, curved like the Greek sigma. Lanceolate and concave on one side at the base, and on the other side at the apex. (Gr. *sigma*, and *eidos*, like.)

Signatures.—Markings (of colour chiefly) upon a surface, resembling in some degree letters and characters. (L. *signatura*, from *signo*, to mark, sign, etc.)

Signate.—Marked with signatures.—(L. *signo*.)

Simple.—(Antennæ.) The term used when a capitate antennæ is so formed by one joint only. [See Compound in contra-distinction.] (L. *simplex*, one fold, from *semel*, once, and *plico* to fold.)

Simple (*simplex*).—With no unusual addition or modification.

Simple ocellus.—When the *eye of colour* consists only of an iris and pupil. (L. *simplex* and *ocellus*.)

Sinciput.—The middle head or frons. Nitzsch's term for the frons. (L. *semi*, half, and *caput*, the head.)

Sinuate.—Having large curved breaks in the margin resembling bays. (L. *sinus*, a hollow, a bay, etc.)

Sinuate.—Slightly waved. (L. *sinus*.)

Sinuato-undulate.—When fasciæ, strigæ, lines, etc., curve into obtuse sinuses. (L. *sinuo*, to bend, curve, and *undula*, dimin. of *unda*, a wave.)

Sinuatus.—Sinuate; a margin with a rounded incision. (L. *sinus*.)

Sinus.—A hollow, a bay, a cavity; a fistula, a groove. A curved break in an otherwise straight margin. (L.)

Siphon.—The respiratory tube of the mosquito larvæ. It is a more or less simple tube, but varies considerably in shape, according to the larvæ.—Two trachea run through the siphon and feed the main tracheal system of the body; the end being provided with valved and guarded openings. (Gr. *siphon*, a tube.)

Siphuncles.—The cornicles.

Siphunculus.—The siphuncle; the real instrument of suction, which when unemployed is retracted within the tubulus. (Gr. *siphuncule*, dimin. of *siphon*.)

Siphunculate.—Possessing a siphon, or tube, as a valve. (Gr. *siphon*.)

Smaragdinus, Smaragdine.—An intensely bright gold-green colour, like the emerald in colour. (L. *smaragdus*, emerald.)

Solea.—The sole, the underside of the tarsus ; it includes the pulvilli. (L. the sole of the foot.)

Solenaria.—The two lateral sub-cylindrical air-tubes of the antlia. (Gr. *solen*, a pipe, or tube.)

Solid.—One mass, having no vacant interstices. (L. *solidus*.)

Somite.—A segment.

Sparsate, Sparse.—Scattered ; spread irregularly, and at a distance from each other. (L. *sparsus*, from *spargo*, to scatter.)

Spatha.—Organs of the Hymenopterous female genitalia, which lie over the base of the stipites and the sagittæ, and between which the intromittent organ is inserted. (L. a broadsword.)

Spathulate.—Narrow and flat at the base and enlarged towards the apex. (L. *spatha*.)

Sperm vesicles.—The seminal vesicles ; vessels containing the spermatozoa. (Gr. *sperma*, seed, and L. *vesica*, a bladder.)

Spermatheca.—A more or less heart-shaped protective sac or pouch, situated upon the dorsal wall of the vagina and opening by a narrowish neck into the oviduct ; it functions as a protective case for the semen. (Gr. *sperma*, and *theca*, a case.)

Spermatheca. The outer covering membrane of the spermatozoa. (Gr. *sperma*, and *theca*.)

Spermatoblasts, Spermatids.—Sperm-cells formed by the spermatocytes dividing into two and then four. (Gr. *sperma*, and *blastos*, a bud.)

Spermatocysts.—The hollow globes formed by the spermatospores dividing. (Gr. *sperma*, and *kystis*, a bladder.)

Spermatocytes.—The sperm mother-cells lying in the spermatocysts. (Gr. *sperma* and *kystis*.)

Spermatogonium.—The primordial germ cell from which the spermatozoa arise and which contains a large and pale nucleus and a dark body (the accessory nucleus of Butschli). The spermatogonia (spermatospores) are converted into spermatocysts, which divide into spermatocytes, these last divide and form the spermatids which directly transform into spermatozoon or spermatozoa.

Spermatospores.—Germinal cells lining the chambers of the testes. (Gr. *sperma*, and *sporos*, a spore.)

Spermatozoa.—The active sperm-cells formed by the spermatids escaping through the split wall of the spermatocyst. (Gr. *sperma*, seed, and *zoa*, animals.) See Spermatozoon.

Spermatozoon.—A single, small, active, male sperm-cell. (Gr. *sperma* and *zoon*.)

Sphaericum.—Spherical. (L. *sphaera*, a round body, sphere, etc.) See Globose.

Spherulate.—Having one or more rows of *minute* tubercles. (Gr. *sphaira*, a ball.)

Sphincter.—A more or less circular muscle which opens and shuts any orifice round which it is placed. (Gr. *sphingkteo*, that which binds tight.)

Spicula.—The sting darts. (L. sting.)

Spine.—A fine, long, rigid, pointed process. (L. *spina*, a thorn.)

Spinneret.—(Larva). A tube-like organ obliquely truncated at its apex arising from the anterior portion of the labium, and composed of several alternately corneous and membranous slips. It is through this tube that a clammy liquid passes, which has been secreted by two granular organs for the preparation of the silk which can be spun into thicker or thinner filaments at the will of the larva, by the power it possesses of distending or contracting the cavity of the tube. Some larvæ such as those of some Coleoptera and Diptera, do not possess this organ, but do possess an apparatus for spinning at the anus. (A.S. *spinnan*, to draw out threads, to spin.)

Spinnerets.—(Coccidæ.)—Organs concerned in the emission of matter of which the puparia and ovisacs are composed. (Newstead.) (A.S. *spinnan*.)

Spinnerettes.—The spinning organs of Araneina (Spiders). They are four to six fairly large processes situated below the anus and beset with

a larger or smaller number of short, fine tubes ; at the apex of each is the aperture of a silk gland, which lies in the abdomen. These spinning glands may vary considerably in structure even in the same insect, and may give rise to different secretions. (A.S. *spinnan*.)

Spinous.—Armed with spines. (L. *spina*, a thorn.)

Spinous-radiate.—Beset with spines in a circle. (L. *spina*.)

Spinulæ.—Spinous processes at the base of the tibia in Hymenopterous insects. (L. *spinula*, dimin. of *spina*, a spine, a thorn.)

Spinules.—Small, fine, scale-like structures which occur on the thickened veins of the wings of numerous insects. Minute spines. (L. *spinula*.)

Spiracles.—Breathing apertures occurring at intervals along the sides of insects, and which communicate with the air tubes or *tracheæ*. The number of spiracles is generally eighteen, nine on each side, but the number is not uniform. The names depend wholly on the segment in which they happen to be situated ; *ex.* the right spiracle of the prothorax is *prothoracis spiraculum dextrum*. The spiracles vary greatly in form, position, and number. (L. *spiritus*, breath, from *spiro*, to breathe.)

Spiracula antepectoralia.—A pair of spiracles fixed in the membrane that connects the antepectus with the medipectus. (L. *spiritus* ; *ante*, before, and *pectus*, the breast.)

Spiraculæ.—The spiracles. (L.)

Spiral Tongue.—The sucker of Lepidoptera; the third form of a suctorial mouth. (L. *spiritus*; A.S. *tunge*, the tongue.)

Spiritrompe.—Latreille's term for a spiral tongue.

Splendent.—Shining, coloured; possessing a metallic lustre. (L. *splendo*, to shine.)

Split (*capitum fissum*).—(Antennæ.) When the joints upon one side are divided as by incisures. (Apparently coined from M. Dut. *splitten*, to split.)

Spoile.—The cast skin. (L. *spolium*, the skin of an animal.)

Spongeous, Spongiose.—Spongy; sponge-like; somewhat elastic in substance. (L. *spongia*, a sponge.)

Spongiform.—Resembling a sponge; soft and porous. (L. *spongia*, and *forma*, like.)

Spur.—A spine that is not a process of the cuticle, but *implanted* in it. (A.S. *spura*.)

Spurious ocellus.—A circular spot of colour without any defined iris or pupil. (L. *spurius*, of illegitimate birth.)

Spurious suture.—An impressed line which resembles a suture, but does not divide the crust. (L. *spurius*, and *suture*, from *suo*, to sew.)

Squamæ.—Scales. (L.)

Squamate, Squamose, Squamulose, Squamulate, Squamosus.—Covered with squamæ.—(L. *squama*, a scale.)

Squama palpifere.—The third piece constituting the maxilla, which is a corneous scale, at the anterior margin of which the palpus is inserted, and which forms beneath, the case or covering of the maxilla. (L. *squama*, and *palpi*; and *fero*, to bear.) See Exopodite.

Squamopygidium.—A term sometimes used to the anal processes, chiefly of the Elatidæ. (L. *squama*, and Gr. *pygidion*, the pygidium.)

Squamule.—A small raised lump or tubercle at the base of each fore-wing. (Dimin. of L. *squama*.)

Squarrose, Squarrous.—Ragged; full of loose scales; cut into. Laciniaë that are elevated above the plane of the surface, and which are cut into. Consisting of rough scales. (L. *squarrosus*, scurfy.)

Stellate, Stellated.—Resembling a star; possessing a star-shaped organ; star-shaped; with four or five radiating lines. (L. *stella*, a star.)

Stemmata.—The eyelets; two, or three convex, crystalline, simple eyes, observable in the frons or vertex, or common to both. Ocelli. (From Gr. *stemma*, anything that crowns.)

Stem-mother.—The agamic female, which hatches from the pseudova of Aphids in the spring, and from which the summer generations arise. (M.E. *stem*, and *moder*.)

Stercoraceous.—Inhabiting dung. (L. *stercoris*, dung.)

Sternæ.—Ventral plates; ventral equivalents of the tergæ. (From L. *sternum*, the breast bone.)

Sternellum.—The third section of the lower surface of segments of insects. (From L. *sternum*.)

Sternites.—Another term for the sternæ. (Packard.) (From L. *sternum*.)

Sterno-rhabdites.—The elements or tubercles seen in Hymenopterous larvæ, which are destined to form the ovipositor. (Lacaze-Duthiers.) (From L. *sternum*, and Gr. *rhabdos*, a rod.)

Sternum.—The inferior or ventral surface of a segment. (L. the breast bone.)

Sternum collare.—The collar-bone, a prominent narrow portion in the underside of the jugulum. *Cartilago ensiformis*. (L. *sternum*, and *collare*, collar.)

Sternum pectorale.—The breast-bone, a prominent carina situated on the breast. (Knoch.) (L. *sternum*, and *pectus pectoris*, the breast.)

Stethidium.—The term used by Illiger, Bouché, and others for the thorax. (Derived from Gr. *stethos*, the breast.)

Stigma.—A darkened spot upon the anterior margin of the upper wings, being an incrassated portion of the *costal nerve*. The term is sometimes used for spiracle. (L.)

Stigma metathoracis.—The metathoracic spiracle situated on each side of the metanotum, and in front of the halteres or poisers. (L.)

Stigmata.—Apertures in the body communicating with the trachea. (L. *stigma*, a mark by puncture.)

Stigmatic.—Pertaining to the stigma.

Stilt prolegs.—Prolegs which are unnaturally long and elevate the insect. (M.E. *stille*, and prolegs.)

Stink glands.—In connection with the skin, there are frequently skin-glands; of these may be mentioned the stink-glands on the ventral side of the thorax, in Hemiptera; the anal-glands of the Carabidæ; the wax-glands of Aphidæ and of Cocci. Some are gland-cells, some true glands, and sometimes they are represented by simple, flat, thickened portions of the epidermis (wax glands of bees). (A.S. *stincan*.) See Coxal-, Fœtid-, Anal-, Metameric-glands, and Osmeteria.

Stipes.—The second or distal joint of the protopodite. The second piece which with the cardo constitutes the two-jointed basal portion of the maxillæ in the mouth of the cockroach. (L. a stock, or trunk.)

Stipites.—The outer pair of forceps of the Hymenopterous genitalia; they arise from a basal ring called the cardo. (L. *stipes*, a trunk.)

Stomach (*ventriculus*).—The pouch which receives the food from the gullet, and digests it, passing it to the intestines with which it is united at

its posterior extremity. The stomach varies greatly in its form, both of its main cavity and of the numerous appendages with which it is occasionally furnished. It is termed simple or *simplex* when it is a mere continuation of the gullet in an enlarged form, being slightly constricted at the union with the gullet, and more so at its junction with the intestines, where an elastic ring is placed, which, when contracted, nearly closes the aperture. It is said to be double, or *duplex*, when it is divided into two distinct portions, one preceding the other. It is triple, or *triplex*, when it possesses three separate divisions following each other longitudinally; it sometimes, but rarely, has four divisions. It is called compound or *compositus*, when it throws off two or more minor stomachs, or *cæca*, resembling little purses at or near its union with the gullet; these are particularly observable in the voracious herbivorous insects. (Gr. *stomachos*, from *stoma*, a breathing pore.)

Stomatotheca.—The mouth-case, that portion of the theca enclosing the mandibles and palpi. (Gr. *stoma*, and *theca*, a case.)

Stomodæum.—The fore-gut, comprising the gullet, crop, and gizzard. (From Gr. *stomachos*, the gullet.)

Stomogastric nerves.—Two parallel cords arising from the vagus ganglion, feeding the alimentary canal, on the route to their termination in the mid-intestine. (Gr. *stoma*, and *gaster*, the belly.)

Stomogastric nervous system.—[See Vagus System.]

Stramineus.—Pale yellow, straw-like in colour.
(L. of straw.)

Strangulate.—Strongly constricted, and contracted, forming a waist. (L. *strangulatus*, from *strangulo*, to strangle.)

Stria.—An impressed line or scratch; the term is rarely used for an elevated line. (L. a furrow.)

Striate.—Furnished with striae. (L. *stria*.)

Striate-punctate.—Possessing loose punctured striae. (L. *stria*, and *punctum*, a puncture.)
See Punctate-striate.

Stridulation.—Noise produced by the friction of one surface upon another. (L. *strideo*, to grate or creak.)

Stridulatory.—Connected with stridulation. (L. *strideo*.)

Striga.—A transverse band. (L.)

Strigate, Strigose, Strigous.—Possessing strigæ.
(L. *striga*.)

Strigilis.—A deep sinus near the base of the palpa; in some Hymenoptera it is often pectinate.
(L. a scraper.)

Strigose.—Scatched, or lined. (L. *stria*.)

Strio-punctate.—[See Punctate-striate.]

Striole.—A rudimentary stria. (From L. *stria*.)

Striolate.—Furnished with rudimentary stria.
(L. *stria*.)

Stupeous, Stupose.—Full of matted filaments; covered with long, loose scales resembling tow. (*L. stuppa*, tow.)

Stupulose.—Covered with coarse decumbent hairs. (*L. stuppa*.)

Style.—A pointed process. (*L. stilus*, a pointed instrument.)

Styles.—Rigid, exarticulate, long, narrow anal organs.—(*L. stilus*.)

Stylose.—Furnished with a style. (*L. stilus*.)

Styliform.—Like a style. (*L. stilus* and *forma*, form.)

Stylus.—The outer sheath of the genital armature of the male coccids. Another term given to the ovipositer, when it is not a boring apparatus—*Terebella*. (*L.*)

Sub.—A Latin prefix signifying under, extensively used to express a subordinate degree, or imperfect state of quality.

Subacute.—Moderately acute. (*L. sub*, and from *acuo*, to sharpen.)

Subaduncate.—Somewhat hooked or curved. (*L. sub*, *ad*, to, and *uncus*, a hook.)

Subanal laminæ.—Heymon's term for the podical plates. (*L. sub*, *anus*, and *lamina*, a plate.)

Subcordate.—Heart-shape; resembling somewhat the shape of a heart. (*L. sub*, and *cor*, the heart.)

Sub-costal nervure or nerve.—The radiating or cross nervure of the wing. (L. *sub*, and *costa*, a rib.)

Subcostal nerves.—Nerves arising from the underside of the post-costal nerve, or from each other, called the first, second, third, etc., in order of their occurrence. (L. *sub*, and *costa*, a rib.)

Subcutaneous.—Placed under the skin; applied to parasitic larvæ which feed under the skins of their hosts, and to those which feed in the inner tissues of plants, leaves, etc. (L. *sub*, and from *cutis*, the skin.)

Suberoded.—(Wings.) Somewhat indented. (L. *sub*, and *erosus*, from *erodo*, to gnaw.)

Suberouse.—Cork-like, somewhat resilient in substance. (L. *suber*, cork.)

Suberose.—Having the appearance of being gnawed. (L. *sub*, and *erodo*, *erosus*, to gnaw off.)

Subfacies.—The subface; the lower surface or underside of the head. It includes the lora and jugulum. (L. *sub*, and *facies*, aspect.)

Subgalea.—A portion of the mouth-parts, situated at the base of the stipes, and bounded on the inner side by the lacina of the maxilla, and on the outer side by the palpiger of the maxilla. (L. *sub*, and *galea*, a helmet.)

Subgeneric.—Pertaining to a sub-genus. (L. *sub*, and *genus*, a kind.)

- Subgenus.**—The sub-division of a genus, comprehending one or more species. (L. *sub*, and *genus*.)
- Subglobose.**—Partially spherical. (L. *sub*, and *globus*.)
- Submargin.**—An imaginary portion of a surface, situated exterior to the disc and within the margin. (Say). (L. *sub*. and *margo*, the margin.)
- Submarginal cells** (*cellulæ submarginales*.)—The cells of the wing immediately below the *marginal cells*. The cubital cells. (L. *sub*, and *margo*, the margin.)
- Subocellate.**—Applied to a spot on the wing of a Lepidopterous insect, when it resembles an ocellate spot, but is destitute of a pupil, blind. (L. *sub*, and *ocellus*, an eye.)
- Sub-œsophageal commissure.**—The cross nerve (Burgess) connected the lower portions of the *crura cerebri*, and forming a semi-circle round the ventral part of the œsophagus. (L. *sub*, and Gr. œsophagus.)
- Subœsophageal ganglion.**—A thick nerve ring connecting the supracœsophageal ganglion with the tritocerebron. (L. *sub*, and Gr. *oisophagos*, and *ganglion*.) See Cerebral ganglion.
- Subpunctatus.**—Slightly punctured. L. *sub*, and *punctum*, a puncture.)
- Subsegments.**—The term given to the four sections comprising the head of an insect. (Newport.) (L. *sub*, and *segment*.)

Subsinuate.—Having small curved bays or breaks in the margin. (L. *sub.* and *sinus*, a bay.)

Substriatus.—Slightly striate. (L. *sub.* and *stria*, a furrow.)

Subterranean.—(Pupæ.) (L. *sub.* and *terra*, the earth.) See Pupæ subterraneæ.

Subulate.—Awl-shaped; linear; narrow and tapering; terminating in a sharp point. (L. *subula*, an awl.)

Subulate.—Having a long thin cone slightly bent throughout its whole course; awl-like. (L. *subula*.)

“**Sucking stomach.**”—A thin muscular pocket connected by a slender neck with the end of the œsophagus, or the crop, when the latter is present. (A.S. *sucan*, and stomach.)

Suffulted pupil. When the *pupil* of the *eye* of *colour* shades into another colour. (L. *suffultus*, propped or supported, and *pupil*.)

Sulcate.—Deeply furrowed. Possessing groove-like excavations longitudinally arranged. (L. *sulcus*, a furrow.)

Sulciform.—Furrow shaped. (L. *sulcus*, and *forma*.)

Sulphureus.—The colour of brimstone; yellow. (L. *sulphur*, sulphur.)

Super.—A Latin prefix signifying over, above, beyond.

Superadded nervous system.—Consists of a small median nerve extending from each of the first eleven ventral ganglia. As a rule the median nerve gives rise to the respiratory nerves. (L. *super*, *addo*, to add.)

Superciliary.—Placed above the eyes. (L. *super*, and *cilium*, the eyelid.)

Supercilium.—An arched line somewhat resembling an eyebrow, which sometimes surmounts an eye, or eyelet. (L. *super*, and *cilium*.)

Superficies (*superficies externa*).—The exterior surface. (L.)

Superficies inferia.—The prone, or *under* surface. (L.) See prone surface.

Superficies interna.—The *interior* surface. (L.)

Superior (*ant. superiores*).—(Antennæ.) Placed, as is usual, upon the upper part of the head. (L.)

Superior lobe.—(L. comparative of *superus*, high, from *super*; and *lobus*.) See Lobus superior.

Supine surface.—(*Superficies*.) The *upper* surface.

Supra.—A Latin prefix signifying above, over, or beyond.

Supra-anal plate.—[See Suranal plate.]

Supra-clypeus.—A subdivision of the clypeus, especially observable in the Hymenoptera.

Supracæsophageal ganglion.—A large nerve-centre situated in front of the gullet, and known as the “brain”; it gives off nerves to the eyes and the antennæ. (Rabl-Ruckard). (L. *supra*, and Gr. *oisophagos*, the gullet.) See Cerebral ganglion.

Supra-spinal Cord.—A longitudinal cord of connective tissue forming a yellowish-white band, and which seems to be an outgrowth of the dorsal portion of the neurilemma of the ventral cord.

Supra-spinal vessel.—One of the pulsating organs lying as a ventral sinus upon the nervous cord, and closed by a pulsating diaphragm.

Suranal plate.—A triangular, often thick, solid plate of the male genital armature, the remnant of the tergum of the last, usually tenth, segment of the abdomen. (Packard.)

Sursum.—(Direction.) Upwards. (L.)

Sutural.—Pertaining to the suture. (L. *suo*, to sew.)

Suture.—The dividing line or space. (L. *suo*.)

Swimming fan.—A row of (generally twenty-five) long feathered bristles situated on the venter of the ninth segment of *Corethra* larvæ. (Theobald.) (A.S. *swimman*, and *fann*.)

Syn.—A Greek prefix signifying with, or together.

Syntype.—All the specimens, except the *type*, upon which a species is based and described. (Gr. *syn*, and *typos*, type.)

Syringes.—Organs situated in various parts of larvæ, from which they eject fluid. (Kirby and Spence.) (Fr. *syringue*, from L. *syrinx*, a tube.)

Tænidia.—The “spiral threads,” the flat concavo-convex, sometimes solid, rings found in the tracheæ, and which are sometimes seen to be spirally arranged; they are a thickening of the chitinised folds of the endotracheal membrane. (Gr. little bands.)

Tail.—The terminal segment of the abdomen. An elongation of the tip of the inferior wings in some Lepidoptera. (A.S. *tæg*, *tægel*, hair.)

Talus.—The ankle; the apex of the tibia, where it is united to the tarsus. (L. the ankle.)

Tarsal.—Pertaining to the tarsus. (Gr. *tarsos*, the flat of the foot.)

Tarsus.—The foot or last part of the leg, consisting of five joints called the first, second, third, fourth and fifth joint of the *tarsus*, or *planta*,* *metaplanta*, *allax*, *arthrium*, and *ungula*, the *planta* being nearest to the tibia, the others in regular succession. (Gr. *tarsos*.)

Taster.—Palpus or feeler. (Fr. to handle, to feel.)

Tawny.—Of a yellowish-dark colour. (Fr. *tanné*, tawny.)

Teeth.—A horny substance growing out of the jaws of insects, and serving in the act of mastication. A series of projections resembling teeth. (A.S. *toth*.)

* $\text{Metatar}^{\text{s}}_{\text{X}}$ of Theobald.

- Tegmina.**—The roof-shaped thickened fore-wings in Orthoptera and Homoptera. (L. *tegmen*, a covering.)
- Tegula.**—A small tubercular plate immediately at the base of each fore-wing, which covers the metathoracic spiracle. (L. *tegula*, a tile.)
- Teli cerebroida.**—The thirteenth and last cerebroida. (Gr. *telos*, the end, and L. *cerebrum*.)
- Teli corculum.**—The corcula of the telum. (Gr. *telos*, and L. *corculum*, a little heart.)
- Telson.**—The last segment. (Gr. the limit.)
- Telum.**—The thirteenth and last segment in insects; the last segment of the abdomen. (From Gr. *telos*, the end.)
- Temple.**—The side of the head. (A.S. *tempel*,—Low L. *templum*, a temple.) See Tempora.
- Tempora.**—The temples, the posterior portion of the sides of the head lying approximate to the eyes. (L.)
- Tendon.**—A strong bristle, or bristles, seen at the base underneath in the underwings of Lepidoptera (L. *tendo*, to stretch.)
- Tenent.**—Hairs which exude a thin mucilaginous fluid. (From L. *teneo*, to hold, to stick.)
- Teneral.**—A state of the imago after exclusion from the pupa, in which it has not fully completed its clothing, colouring, etc. (From L. *tener*, soft, young, tender.)

- Tentaculæ.**—Retractile processes on the larvæ of some species of Lepidoptera. (L. *tentacula*, tentacles.)
- Tentaculate.**—Having soft tensile excrescences. (L. *tentacula*.)
- Tentacules.**—Delicate organs of touch ; soft tensile excrescences. (L. *tentacula*.)
- Tentaculiferous.**—Bearing tentacula or tentacles. (L. *tentacula*, and *fero*, to bear.)
- Tentorium.**—A semi-transparent chitinous septum of the complex inner skeleton in the head capsule formed by inpushing of the chitin ; which gives attachment to the muscles used in moving the head and jaws. (Burmeister.) (L.)
- Terebella.**—The saw-like ovipositor with which many females bore holes to deposit their eggs. (From L. *terebro*, to bore.)
- Terebrantia.**—A tribe of hymenopterous insects, the borers, the females of which have an ovipositor. (L. *terebrens*, from *terebro*, to bore.)
- Teres.**—When the circumference is circular, but its thickness indeterminate, nearly cylindrical. (L. round.)
- Terete.**—Cylindrical and smooth. (L. *teres*.)
- Tergæ.**—Dorsal plates ; plates borne on the tergum. (From L. *tergum*, the back.)
- Tergiferous.**—Carrying on the back. (L. *tergum*, and *fero*, to bear.)

Tergites.—The different tergal pieces constituting the genital armature. (Lacaze—Duthiers.) (Another term for tergæ.)

Tergo-sternal.—The muscles connecting the tergites with their corresponding sternites. (L. *tergum*, and *sternum*.)

Tergum.—The superior, upper or dorsal portion of a segment, separated from the venter by sutural lines, and divided into segments which are generally, especially in the case of the abdomen, perforated on each side, by the spiraculæ. It is the collective term for the four tergal, or dorsal pieces of the præscutum, scutum, scutellum, and postscutellum. (L. the back.)

Termen.—The hinder muscles of the wing. (L. *terminus*, a boundary.)

Tessellate.—Marked with chequer-work. (L. *tessellatus*, chequered.)

Test.—The secretory covering which is attached to the bodies of female coccids. (L. *testa*.)

Testa.—The chitinous covering of a testaceous insect. (L. an earthen pot or shell.)

Testaceous.—Consisting of a hard, outer covering. Brownish-yellow, the colour of unglazed earthenware. (From L. *testa*.)

Testes.—Male organs of reproduction, consisting of several seminal tubes or shorter seminal pouches, situated at the end of the *vas deferens*. (L. *testis*, a testicle.)

- Testicle.**—One of the glands which secrete the seminal fluid in males. (*L. testis.*) See **Testes.**
- Testiculate.**—Shaped like a testicle. (*L. testis.*)
- Testudinarious.**—Painted with red, black, and yellow, like tortoiseshell. (*L. testudo,* a tortoise.)
- Testudinate.**—Resembling a tortoise in colour and markings. (*L. testudo.*)
- Tetragonal.**—Having four corners or angles. (*Gr. tetra,* four, and *gonia,* an angle.)
- Tetragonum.**—Four-sided. (*Gr. tetra,* and *gonia.*)
- Tetramerous.**—With four joints. (*Gr. tetra,* and *meros,* a part.)
- Theca.**—The pupa case, the chitinous covering to the soft organs undergoing histology. (*Gr. a case.*)
- Theca.**—The sheath, or case, of the proboscis, representing the labium in a perfect mouth; and including the basis, and labella. The corneous chitinous case enclosing a part. (*Gr.*)
- Thigh.**—The femur, the second or great joint of the legs. (*A.S. theoh.*) See **Femur.**
- Thoracotheca.***—The trunk-case, that portion of the theca enclosing the thorax. (*Gr. thorax,* and *theca.*)
- Thorax.**—The anterior mass in pedunculated insects; that part of the body between the head and the abdomen. (*Gr.*)

* Cytotheca of Kirby and Spence.

Thysanoptera.—An order of Hexapoda. An order of insects possessing four narrow fringed wings, and a weak imperfect suctorial mouth. The metamorphosis is very slight. (Gr. *thysanos*, a fringe, and *pteron*, a wing.)

Thysanura.—A sub-order of apterous insects, belonging to the order Aptera, which undergo no metamorphosis, and possess no wings, but three pairs of legs. They practically remain in the larval stage throughout life. (Gr. *thysanos*, a fringe, and *oura*, a tail.)

Tiaratate.—(Egg.) Turban-shaped. (Gr. *tiara*, a turban.)

Tibia.—The shank, or fourth joint of the leg, connected with the femur and the tarsus. (L.)

Tibial.—Pertaining to the tibia.

Tomentose.—Covered with fine matted hairs; Cotton-like in appearance; cottony. (L. *tomentum*, woolly.)

Tomentum.—A kind of soft pubescence. (L.)

Tongue.—(A.S. *tunge*.) See Lingua.

Topazine.—(Splendour.) The yellow splendour of the topaz. (Gr. *topaz*.)

Tornus.—(Wing.) The angle between the dorsum and the termen. (L.) See Anal angle.

Torose, Torous.—Protuberant swelling in knobs. (L. *torulus*, a knob.)

Torpidity.—A state of hybernation in which no exterior signs of life are exhibited. (L. *torpidus*, from *torpeo*, to be numb.)

Tortilis.—Twisted. (L. from *tortus*, pa. par. of *torqueo*, to twist.)

Torulose.—Having few, but large elevations. (Antennæ); joints possessing tumours or knobs. (L. *torulus*.)

Torulus.—The bed; the cavity or socket in which the base of the antennæ is planted. (L.)

Trabecula.—A basal mass of fibres situated within the cellular envelope and on either side of the supracæsophageal ganglion, and giving rise to the cauliculus. (From L. *trabs*, a beam.) See Mushroom Bodies.

Trabeculus.—The beam of the antennæ; a small movable stalk, situated close to and in front of each antenna. (L. *trabs*.)

Tracheæ.—The organs of respiration in insects; they are simple tubes which communicate externally with the air by means of *spiracles*, and internally with the blood. From each spiracle a single trachea enters the body. If the tracheæ upon entering the body separate, diverge, or ramify throughout the region in their immediate vicinity without any obvious connection with the tracheæ of the adjoining spiracles, they are said to be *detached*; and *connected* when there is a grand longitudinal trachea traversing each side of the body throughout its

length, into which each spiracle sends its particular trachea, sometimes as a single tube, sometimes after a slight ramification. (L. *trachea*, from Gr. *trachys*, the rough.)

Tracheal gills.—Bunches of filaments which contain air tubes, attached in pairs to the various body segments, which permit the insect to breathe the air dissolved in water. (Palmén.) (L. *trachea*, and Scan. M.E. *gille*, from Dan. *giælle*.)

Tractile sensillæ.—The hairs of the body generally, which are movably articulated to the chitinous integument, and which are provided with fine nerve terminations. (L. *tractus*, from *traho*, to draw, and *sensillæ*, from *sensilis*, endowed with sense.)

Tramosericeous.—The splendour of satin. (L. *trans*, and *sericus*, silken.)

Trans.—A Latin prefix signifying over or beyond, or denoting a complete change.

Transverse.—Broader than long. (L. *trans*, and *versus*, turned.)

Transverse.—Running across; when the longitudinal line is cut through at right angles. (L. *trans*, and *versus*.)

Transverse impression or suture.—A transverse furrow crossing the central portion of the dorsal surface of the mesothorax of Diptera, and terminating on each side a little before the base of the wings.

Transverse nerves.—The respiratory nerves.

Trapezate, Trapezoidal.—Quadrilateral with the *four* sides unequal, and none of them perfectly parallel. In the shape of a trapezium. (L. *trapeza*, a table, from *tetra*, four, and *poza*, foot.)

Tri-.—A Greek and Latin prefix signifying three.

Triangular.—Having three angles ; in the form of a triangle. (L. *tri*, and *angulus*, an angle.)

Triarticular.—With three joints. (L. *tri*, and *articulus*, a joint.)

Tricarinate.—Having three longitudinal elevated lines. (L. *tri*, and *carina*, a keel.)

Trichodeal.—Sense-hairs ; tractile sensillæ. (Gr. *trichoder*, hair ; like hair.)

Trichotomous.—Dividing by threes. (Gr. *tricha*, three, and *tome*, a cutting.)

Tricuspid, Tricuspidate.—Divided into three points ; ending in three points. (L. *tri*, and *cuspis*, a point.)

Tridactylous.—Having three toes, or claws. (Gr. *tri*, three, and *daktulos*, a toe.)

Trifasciate.—Furnished with three coloured bands. (L. *tri*, and *fascia*, a band.)

Trifid.—Cleft in three. (L. *tri*, and *findo*, to cleave.)

Trifurcate.—Having three branches or forks. (L. *tri*, and *furca*, a fork.)

Trigonate.—Three-cornered. (L. *trigonum*, from Gr. *trigonon*, a triangle.)

Trilateral.—Having three sides. (L. *tri*, and *latus*, a side.)

Trilineate.—Painted with three lines. (L. *tri*, and *linea*, *lit*, a string of flax, a line.)

Trimerous.—Possessing three parts, or pieces. (Gr. *tri*, three, and *meros*, a part.)

Tripartite.—Divided into three parts. (L. *tri*, and *partite*). See Partite.

Tripupillate.—When the *ocellus* has three pupils, or spots of colour. (L. *tri*, and *pupillus*.)

Triquetrous, Triquetrum.—The form whose horizontal sections are equilateral triangles. Three-sided. (L. *triquetrus*, triangular.)

Tritocerebral.—The third segment of the head, the intercalary segment. (From Gr. *tritos*, third, and *cerebrum*.)

Tritocerebron.—The hind brain which comprises only that region of the sub-œsophageal ganglion from which arise the nerves to the labrum and food-gullet. (Gr. *tritos*, and *cerebrum*.)

Triturating.—Adapted for crushing. (L. *trituratorus*, pa. par. of *trituro*, to crush.)

Trochanter.—The trochanter or second joint of the leg connected anteriorly to the coxa and posteriorly to the femur. (Gr. a runner.)

Trochantine.—A posterior subdivision or projection of the coxa. (Packard.) (Gr. *trochanter*.)

Trochlearis.—Pulley-shaped; like a cylinder contracted in the middle. (L. *trochlea*, a pulley, from Gr. *trochos*, a running.)

Trophi.—The parts of the mouth employed in feeding. (Gr. *tropho*, to feed.)

Trumpets.—The respiratory horns arising from the dorsum of the thorax, just above or in front of the roots of the wing cases of mosquito (*Culex*) pupæ. They are tubular, cylindrical, trumpet shaped structures, communicating directly with the tracheal system. (Theobald.) (Fr. *trompette*, dimin. of *trompe*, a trump.)

Truncate.—Abruptly cut right across in a straight line. (L. *truncus*.)

Truncus, Trunk.—The trunk; the intermediate section of the body which lies between the head and the abdomen. It includes the manitruncus, and alitruncus. (L.)

Tubercle.—A small abrupt elevation of varying form. (From L. *tumeo*, to swell.)

Tuberculose, Tuberculate, Tuberculous.—Covered with tubercle-like prominences. (L. *tumeo*.)

Tuberiferous.—Bearing tubercles. (L. *tumeo*, and *fero*, to bear.)

Tubular ovipositor (*tubulus*).—A tubular retractile appendage of the telum; the instrument with which the female deposits her eggs. (L. *tubulus*, from *tubus*, a tube, and *ovum*, and *positum*, to place.) See Ovipositor.

Tubular tunnels.—The two tubes which pierce the head of *Anopheles* in an antero-posterior direction. They open in front of the head by a slit-like orifice placed between the anterior limit of the eye and clypeus, passing backwards to open in the back of the head, near the ventral edge, below the neck, in two trumpet-shaped apertures. (L. *tubulus*, and F. *tonnel*, a tunnel.)

Tubulus.—The oviduct of flies.—(L. *tubus*.)

Tubulus.—The tubulet; the tube or retractile base of the rostellum. (L. *tubus*.)

Tunica intima.—The inner layer of the silk-glands. (L.)

Tunica propria.—The outer layer of the silk-glands. (L.)

Tunicate (*capitulum tunicatum*).—(Antennæ.) Having each successive joint buried in the preceding funnel-shaped one. (L. *tunica*, a tunic.)

Turbinate.—Shaped like a top or cone inverted. (From L. *turbo*, a top.)

Turgid.—Resembling a distended bladder. (L. *turgeo*, to swell.)

Turreted.—(Head.) When it is produced anteriorly and above into a pyramidal point. *Caput turritum*. (L. *turris*, a tower.)

Twin ocellus.—When the *eyes of colour* join each other. (A.S. *twi*-, double; the *-n*, gives a distributive force, as in L. *bi-n-i*, two at a time.)

Tympana.—The drums; two deep cavities on each side of the epigastrium, which are the instruments of sound. (Gr. *tympanon*, from *typto*, to strike.)

Tympanal.—Pertaining to the tympanum. (Gr. *tympanon*.)

Tympanal nervi.—The receiving nucleus of the nerve-fibres from the nerve-cells connected with the groups of elongate rods situated above the drum, and stretched across within the limb. (Gr. *tympanon*, and L. *nervi*.)

Ulnar nervure.—A radiating or cross nervure in the wing. (L. *ulna*, and *nervus*.)

Umbra.—Brown, dark with yellow. (*Umbria*, in Italy, where the ore of iron of this name is mined.)

Umbones.—Two movable thorns situated on the prothorax in *Acrocinus longimanus*. (L. *umbo*, anything that projects.)

Unbra.—A shadow; a slight shade of colour upon a paler ground, when not easily distinguished. (L. a shadow.)

Un-—A Saxon prefix signifying not before nouns or adjectives, and the reversal of its action before verbs.

Unciform.—Hook-shaped; having the form of a hook. (L. *uncus*, a hook, and *forma*.)

Uncinate.—Hooked at the end. (L. *uncus*.)

Uncinate.—(Antennæ.) Hooked, having the last joint bending back upon the preceding. (L. *uncus*.)

Under Wings (*Alae inferiores*).—The lower, or secondary pair of organs of flight. (A.S. *under*, and Scand. *wing*.)

Undose.—Having undulating nearly parallel somewhat broad depressions which run into each other, and resemble the sand of the sea-shore when left by the tide. (L. *undosus*, billowy wave-like.)

Undulate.—Possessing waved markings, either longitudinally or transversely. (L. *undulatus*, from *unda*, a wave.)

Undulatus.—Waved; a margin with a series of successive arched incisions. (L. *undo*, undulate.)

Unequal.—Different in size or length. (*un*, and L. *æqualis*, equal.)

Ungues, Unguicula.—Claws, or curved hooks at the extremity of the tarsi. (L. *unguis*, a claw.)

Ungues.—(Mouth.) The claws; one or more corneous sharp claws which arm the lobes of the maxilla. (L.)

Unguicula, (pl. *unguiculæ*).—A sharpened curved claw at the extremity of the unguia; generally two in number. (L. dimin. of *unguis*, a claw.)

Unguiculate.—(Maxillæ).—When the terminal tooth of the maxilla is movable, and can be moved to, and withdrawn from, the internal margin of the superior lobe at the will of the insect. (L. *unguis*.)

Unguiculate.—Clawed ; having claws. (L. *unguis*.)

Unguiform.—Shaped like a claw. (L. *unguis* and *forma*.)

Ungula.—The fifth or terminal joint of the tarsus. (L. a claw.)

Ungulate.—Possessing claws. (L. *ungula*, a claw.)

Ungulate.—Hoof-shaped, like a horse's hoof. (Say).

Uni-—In composition, indicates one. (*Uni*, from L. *unus*, one.)

Unicapsular.—Possessing only one capsule. (L. *unus*, and *capsula*, a capsule.)

Unicolorus.—Of one colour, of the same hues. (L. *unus*, and *color*, colour.)

Unicornous.—Possessing only one horn. (L. *unus*, and *cornu*, a horn.)

Uniform.—Having the same form ; not variable ; consistant with itself. (L. *unus*, and *forma*.)

Unilabiate.—Possessing a single lip. (L. *unus*, and *labium*, a lip.)

Unilateral.—On one side only (of the exterior of joints of lamellate antennæ, etc.) (L. *uni*, and *lateris*, a side.)

- Unilocular.**—Having one cell only. (L. *unus*, and *locus*, a place.)
- Unisetose.**—Bearing one seta. (L. *unus*, and *seta*, a bristle.)
- Unpaired median nervous system.**—[See Vagus System.]
- Urate cells.**—Large opaque cells, easily seen in the larval and pupal stages, but in the adult small, and may be regarded as a primitive form of kidney, adapted for storing the products of tissue metabolism. (From L. *urina*, urine.)
- Urceolate.**—Pitcher-shaped ; swelling in the middle like a pitcher. (Mod. L. *urceolatus*, from L. *urceolus*, dimin. of *urceus*, a water-pitcher.)
- Urinary tubes.**—The outgrowths of the proctodæum. (From L. *urina*, urine.)
- Urites.**—The segments of the abdomen (Lacaze-Duthiers), (*uro-* pref. tailed ; Gr. *oura*, a tail.)
- Urites.**—A condensed term of the urosternites. (Packard.)
- Uro-**—Tailed ; having a tail or a tail-like process or processes (pref. from Gr. *oura*, a tail.)
- Uromeres.**—The abdominal segments. (Packard.) (Gr. *uro*, and *meros*, a part.)
- Uro-patagia.**—The podical plates. (Packard.) (Gr. *uro*, and *patagia*.)
- Urosome.**—The abdomen. (Packard.) (Gr. *uro*, and *soma*, a body.)

- Urosternites.**—The sternal sclerites. (Packard.)
- Ustulate.**—So marked with brown as to have the appearance of being *scorched*. (L. *ustulatus*, of *ustulo*, to burn.)
- Uterus.**—The vagina; the term is generally used with the pupiparous forms. (L. the lower part of the belly; inner part; the womb.)
- Utriculi *majores* and *breviores*.**—The numerous large and short utricles which the seminal vesicles bear. (L. *utriculus*.)
- Utrinque.**—With respect to the direction of parts, the term is used to indicate a quality or peculiarity found on each side of the body and at the same place. (L. *utrinque*, on both sides.)
- Utricle.**—A little bag or bladder; a cell; a thin capsule of one cell, containing a single sperm. (L. *utriculus*, a small skin, from *uter*, a bag or bottle of hide.)
- Utricles.**—Numerous tubes found in the sperm-vesicles. (L. *utriculus*.)
- Utricular.**—Containing utricles; furnished with granular vessel-like little bags; like a utricule. (L. *utriculus*.)
- Vagina.***—The short passage formed by the two oviducts uniting, which opens to the outside through a special sclerite situated between the seventh and eighth sternites of the abdomen. (L. a sheath.)
- * In some insects (*Thysanura*, *Ephemera*), the vagina is wanting, and both the oviducts open direct on the postero-ventral surface of the body.

Vagina.—The jointed sheath of the promuscis.
The bi-valve coriaceous sheath of the spicula
(Say). (L.)

Vaginal.—Pertaining to, or resembling a sheath ;
pertaining to the vagina.

Vaginate.—Sheath-like.

Vaginopennous.—Having the wings covered with
a hard sheath ; sheath-winged. (L. *vagina*,
and *penna*, a wing.)

Vagus.—The median nervous cord connecting the
three unpaired ganglia, constituting the visceral
system of insects. (Newport.) (L. *vagus*,
wandering, vagrant.)

Vagus ganglion.—A minute elongated ganglion
situated between the aorta and the œsophagus,
and which constitutes the termination of the
recurrent nerve.

Vagus nervous system.—The sympathetic nervous
system, consisting of the arched, frontal,
pharyngeal, recurrent, stomogastric nerves,
and the vagus ganglion.

Valvæ.—The valves ; two lateral laminae which
cover the ovipositor when it is unemployed.
(L.)

Valvate.—Possessing or resembling a valve. (L.
vala, a valve.)

Valve.—A lid or cover to an aperture, so formed as
to open a communication in one direction, and
close it in another. (L. *valva*.)

Valvula.—A corneous piece covering the instruments of suction above; a little valve. (L. dimin. of *valva*.)

Valvulæ.—The podical plates. (Burmeister.)

Valvule.—A small valve-like process.

Variole.—A pit, or poc-like mark. (Fr. From L. *varius*, various.)

Variolate, Variolose.—Pitted, poc-marked. (L. (*varius*.)

Vas deferens (*Vasa deferentia*).—Male organs of reproduction; two in number, which unite to form a single duct (this duct may be absent, and the vasa deferentia then open separately). Each widens posteriorly to form a *vesicula seminalis*. (L. *vas*, a vessel, and *deferens*, bearing down.)

Vasiform.—Vessel-shaped, resembling somewhat a cup or jug in shape. (L. *vas*, a vessel, and *forma*, shape.)

Vellum.—A membrane; usually seen attached to some calcaria. (Fr. *vélin*, from L. *vitulus*, a calf.)

Velum penis.—The name given to the penis of the locusts. (Acrydiidæ.) (L. a covering, and *penis*.)

Velutinous.—Velvet-like, covered with very thick short upright hairs. (It. *veluto*.)

Vein.—A tubular vessel which receives the blood or vital fluid and conveys it to the heart and circulating centres. (L. *vena*, a blood vessel.)

Vena.—A vein. (L.)

Venæ longitudinales.—The longitudinal veins of the wing, which are connected to each other by the transverse veins. (L.)

Venose, Venous.—Painted with lines that branch like veins. (L. *vena*.)

Vent.—The anus.—(*fent*, from O.Fr. *fente*, a slit.)

Venter.—The belly, the lower or prone part of the abdomen. (L.)

Ventrad.—An abbreviated form of ventrally, or ventral.

Ventral nerve trunk.—A small inconspicuous nerve trunk originating from the ventral side of the third abdominal ganglion, extending latero-ventrally, and sending off branches which innervate the ventral muscles.

Ventral segments.—The transverse segments of the belly. They include the elastes, when they are present. (L. *ventralis*, from *venter*, the belly.)

Ventral sympathetic system.—[See Superadded nervous system.]

Ventral tube, or sucker.—A more or less simple tubercle, divided into two halves by a septum, and situated under the anterior abdominal segment of the Collembola. The tube varies in construction in the different genera.

Ventricle.—A small cavity in the body. (L. *ventriculus*, a belly, stomach.)

Ventricose.—Cylindrical in form, distending suddenly into a large cavity as if filled with air. (Low L. *ventricosus*, from L. *venter*.)

Ventricosus.—The term given to the gullet when it dilates into a large bag or crop before its union with the stomach, and detains the food in its passage to that organ. (L.)

Ventricular ganglion.—A triangular nerve centre which lies on the crop, and is connected with the frontal ganglion by the recurrent nerve. (L. *ventriculus*, and *ganglion*.)

Ventriculus.—[See Stomach.]

Vermicular.—Resembling a worm. (L. *vermes*, worms.)

Vermiculate.—Covered with tortuous, irregular, sinuate, worm-shaped markings or striæ. (From L. *vermes*.)

Vermicule.—A little worm or grub. (L. *vermes*.)

Vernantia.—Moulting; the shedding of the skin or exuvia. (From L. *vernans*, from *ver*, spring.)

Verrucate.—With thick-set tufts of parallel hairs. (L. *verres*, boar.)

Verruca.—A wart. (L.)

Verruca.—A small flattish wart-like prominence. (L.)

Verrucose, Verrucous, Verruculose.—Covered with wart-like prominences.—(L. *verruca*.)

Versatile.—(Head.)—When it can be freely moved every way. (L. *versor*, to turn.)

Versicolorous.—Of various colours.—(L. *versi*, perf. of *vergo*, to turn ; and *color*, colour.)

Vertex.—The vertex, the upper flattened portion of the head, upon which very generally the ocelli are situated. (From L. *verto*, to turn.)

Vertical.—Perpendicular. (L. *verto*, to turn.)

Vertical.—(Motion.) When it is up and down.

Vertical margin.—The limit between the frons and the occiput of Diptera. (Loew.) (Fr. *vertical*, from L. *verticalis*, from *vertex* and *margin*.)

Verticillate.—Are those antennæ, the joints of which are surrounded, at equal distances, with stiff hair. (Trichopterygidæ.) (L. *verticillatus*, from *verto*, to turn.)

Verticillate.—Placed in whorls. (L. *verto*.)

Vesicant, Vesicatory.—Raising a blister (applied to *Lytta*, *Mylabris*, etc.) (L. *vesica*, a blister, or little bladder.)

Vesicle.—A little bladder, or portions of the inner membranes, separated to form small bladders ; any small membranous cavity or cell. (L. *vesica*.)

Vesicula seminalis.—Two tufts of white glands holding the spermatozoa, and which connect with the vasa deferentia. (L. *vesica* ; and *semen*, seed.)

- Vesicular, Vesiculous.**—Pertaining to, or consisting of vesicles ; full of interstices ; having small bladders or glands on the surface. (L. *vesica*.)
- Vibratile.**—(Motion).—When there is a constant oscillation of any part ; adapted to, or used in vibratory motion. (L. *vibro*, to vibrate.)
- Villi.**—Fine small fibres or hairs. (L. *villus*, hair.)
- Villosate.**—Covered with long hairs. (L. *villus*.)
- Villose, Villous.**—Covered with long, loosely set hairs ; covered with hairs which give a woolly appearance to the part ; covered with soft dense hairs. (L. *villus*.)
- Violaceous.**—Violet coloured, a mixture of blue and red. (L. *viola*, a violet.)
- Viscera.**—The contents of the head, thorax, and abdomen. (L. *viscus*, an intestine, an entrail.)
- Viscid.**—Covered with a resinous or greasy matter. (Fr. *viscide*, from L. *viscidus*, clammy.)
- Viscous, Viscid.**—Sticky like bird lime. (L. *viscosus*, from *viscum*, bird-lime.)
- Visual organ.**—The lens of the eye ; the crystalline humour of the eye. (Boas.) (L. *visum*, to see, and Gr. *ergon*, a work.)
- Vitelline membrane.**—The thin inner yolk-like membrane of the egg. (L. *vitellus*, the yolk of of an egg ; and membrane.)
- Vitellinus.**—Yellow, with a slight tinge of red. (L. *vitellus*.)

- Vitreous—body or cell.**—The jelly-like mass contained in the visual organ. (L. *vitrum*, glass.)
- Vitta.**—A longitudinal coloured stripe. (L. a band.)
- Vitta frontalis.**—[See Frontal stripe.]
- Vittate.**—Possessing vittæ.
- Viviparous.**—Producing young in a living state; opposed to oviparous. (L. *vivus*, living, and *pario*, to bring forth.)
- Volsellæ.**—The median pair of the genital appendages of Ants. (L. *volsella*. tweezers.)
- Vulva.**—The orifice of the oviduct. (Packard.) (L. the belly, the womb.)
- Web.**—The plexus of delicate threads spun and woven by the Araneida. Through the minute apertures of the spinnerets the liquid substance that hardens and forms the silk-like threads of the web is passed, and these minute threads unite to form one line of extreme fineness. This line is covered with drops of a clear liquid, so it is seen two substances constitute the web—the solid thread, and the globules of clear liquid. (A.S. *webb*.)
- Wedge-shaped.**—Having the shape of a wedge, cuneiform. (A.S. *wecg*.)
- Whirls.**—(Antennæ). Small hairs placed round the joints, like the spokes of a wheel. (M.E. *whirflen*, to turn.—Icel. *hvirfla*, frequent; to turn round.)
- Whorls.**—(M.E. *whorl*.) See Whirls.

“**Wing bones.**”—The nerves or nervures of the wings. (M.E. *winge, wenge.*)

Wing-case.—The chitinous case which covers and protects the delicate under-wings of coleopterous insects. (M.E. *winge, wenge.*)

Wing-cells.—The Arææ.

Winglets.—Rudimentary wings. Small concave-convex scales, generally fringed at the tip, situated under the base of the elytra in *Dytiscus marginalis* Linn. (M.E. *winge.*)

Wing ribs.—[See Nervures.]

Wings.—Membranaceous, reticulated instruments of flight, attached laterally to the thorax. (M.E. *winge, wenge.*)

Winter eggs.—The pseudova of the Aphids. (A.S. *winter*, a winter, a year, and M.E. *egges.* Swed. *agg* + A.S. *æg*, the oval body of females from which the young arise.)

Woody.—A term frequently used in describing parts of insects which bear a general appearance to wood, whether in texture, consistency, or appearance. (A.S. *wudu.*)

Wrinkled.—A term used generally to imply rugosity. (M.E. *wrinkle*, perhaps allied to Wrench, and to A.S. *wringan*, to twist.)

Writhled.—Wrinkled; the term is not often met with. (M.E. *writhen.*)

Xanthic.—Yellowish. (Gr. *xanthos*.)

Xanthos.—Yellow. (Gr.)

Xyloid.—Wood-like in appearance. (Gr. *xylon*, wood, and *eidos*, like.)

Xylophagous.—Wood Feeding. (Gr. *xylon*, and *phago*, to eat.)

Xyphus.—The prolongation of the middle posterior margin of the sternal segments of Heteroptera.

Zoonite, Zoonule.—The term given to the typical ring, or segment, when speaking of Worms and Crustaceans. (Gr. *zoon*, an animal ; the product of a fertilised ovum.)

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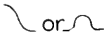






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|  | denotes | the | Head. |
|  | „ | „ | Thorax. |
|  | „ | „ | Abdomen. |
|  | „ | „ | Imago. |
|  | „ | „ | Larva. |
|  | „ | „ | Egg. |
|  | „ | „ | Male. |
|  | „ | „ | Female. |
|  | „ | „ | Larva. |
|  | „ | „ | Worker. |
|  | „ | „ | Neuter. |

