round blood cells upon its surface, and that in the deeper layers the cells grow larger and become branched. Explain that the deeper layers are the older and that their cells are white blood cells which are growing to become connective tissue.

REVIEW TOPICS

1. Explain in order what happens in an injured part of the body, describing the increased flow of blood, and the action of the white blood cells.
2. Explain the healing of a cut.
3. Explain how a raw spot of skin becomes healed, and what part the epithelium takes in the process.
4. Explain how bacteria in an injured part retard healing.
5. Explain how white blood cells overcome the bacteria.
6. Explain the formation of an *abscess*.
7. Explain taking cold in a wound, and in a mucous membrane.
8. Give the signs of inflammation and its use.
9. Tell what composes the matter discharged from an abscess and from the nose and throat during a cold.
10. Show how to treat a wound in which one has taken cold.
11. Explain how to treat a cold of the air passages.

GLOSSARY.

Ab-do′men (Lat. *abdomen*, belly), the cavity of the body which contains the stomach, intestine, liver, pancreas, and spleen.

Ab′scess (Lat. *abs*, away, and *cedere*, to move), a collection of dead creamy matter in the flesh of a living person.

Ab-sorp′tion (Lat. *ab*, away, and *sorbere*, to soak in), taking a substance into the tissues of the body, without change in its composition.

Ac-com-mo-da′tion (Lat. *ad*, to, *con*, with, and *modus*, measure), adjusting the lens of the eye to the proper shape to cause the image of an object to fall upon the retina.

A′cid (Lat. *acere*, to sour), any sour, irritating substance, which will corrode other substances.

A′con-ite (Gr. *akoniton*, the plant commonly called monkshood), an extremely poisonous plant. It is used to lower fevers. In overdoses it produces extreme weakness of the whole body.

Ad′e-noid vegetations (Gr. *aden*, gland, and *eidos*, form), collections of soft, grape-like bodies growing in the upper part of the pharynx. They are common in children.

A-dul′ter-ate (Lat. *ad*, to, and *alter*, another), to make impure by an admixture of an inferior substance.

Al-bu′min (Lat. *albus*, white, because it generally turns white when heated), a term applied to a class of substances, some form of which is the essential part of every living cell. It is composed of the elements carbon, hydrogen, nitrogen, oxygen, and sulphur. The form of albumin which is found in the white of an egg is spelled *albumen*.

Al′co-hol (Ar. *al-kohl*, a powder of antimony used in painting the eyebrows), on account of its extreme fineness the name came to be applied to the product formed by repeatedly distilling wine, for this was supposed to be the real "spirits" of the wine.

Al-i-men'ta-ry (Lat. *alere*, to feed), having nourishing qualities capable of being used as a food, or pertaining to food.

Al'ka-li (Ar. *al*, the, and *kali*, a plant whose ashes were used in making glass), a substance whose properties are in contrast with those of an acid. An alkali forms soap when united with an oil.

Al'ka-loid (Ar. *alkali*, and *eidos*, form), the substance in certain vegetable drugs which gives the drugs their characteristic qualities. A small dose of an alkaloid produces the same effect as a large dose of the drug from which it is derived.

A-me'ba (Gr. *amoibe*, change), the simplest form of animal life, consisting of a single lump of jelly, capable of changing its shape at will.

Am-y-lop'sin (Gr. *amulon*, starch), the ferment in the pancreatic juice which changes starch to glucose.

A-nat'o-my (Gr. *ana*, up, and *temnein*, to cut), the science which tells of the structure of living bodies.

An-e'mia (Gr. *a*, without, and *haima*, blood), the state of the blood in which there are too few red blood cells and too little plasma.

An-es-the'si-a (Gr. *an*, not, and *aisthanesthai*, to perceive), a temporary lack of sensibility produced by drugs.

An'ti-dote (Gr. *anti*, against, and *didonai*, to give), a substance which prevents a poison from acting upon the cells when it is introduced into the body.

An-ti-sep'tic (Gr. *anti*, against, and *sepein*, to rot), a substance which prevents the growth of bacteria, and hence prevents rotting.

An-ti-tox'in (Gr. *anti*, against, and *toxikon*, poison), a substance which is produced in the body to overcome the poison of a disease. It is commonly applied to a substance used in the treatment of diphtheria.

An'trum (Gr. *antron*, a cave), the hollow cavity within the upper jaw bone.

A-or'ta (Gr. *aeirein*, to lift up), the large artery which rises from the left side of the heart, and distributes blood to all parts of the body.

Ap-o-plex'y (Gr. *apo*, from, and *plessein*, to strike), a sudden loss of consciousness, usually due to pressure upon the brain caused by a burst artery.

Ap-pen-di-ci'tis, inflammation of the vermiform appendix.

Ap'pe-tite (Lat. *ad*, to, and *petere*, to seek or long for), a strong desire for something. It is used mainly of the desire for eating and drinking.

A'que-ous hu'mor (Lat. *aqua*, water, and *humor*, a liquid), the liquid which fills the eyeball in front of the lens.

Ar'gon (Gr. *a*, not, and *ergon*, work), a gas (discovered in 1894) which forms about one per cent of the air. It resembles nitrogen.

Ar'sen-ic (Gr. *arsenikon*), a gray metal whose combinations with oxygen are very poisonous.

Ar'ter-y (Gr. *aer*, air, and *terein*, to hold), the tubes which conduct blood to the cells of the body. After death they are empty, and it was formerly supposed that in life they contained only air.

As-phyx'i-a (Gr. *a*, not, and *sphuzein*, to throb), death by suffocation.

As-sim-i-la'tion (Lat. *ad*, to, and *similis*, like), the process of changing digested food to substances like those which compose the body.

A-stig'ma-tism (Gr. *a*, not, and *stigma*, a point), the condition of an eye in which one part of the rays are brought to a focus sooner than another part.

Au'ri-cle (Lat. *auris*, an ear), the upper two cavities of the heart. They are thin and resemble dog's ears.

Bac-te'ri-um (pl. bacteria) (Gr. *bacterion* a staff), the simplest and smallest form of plant life, consisting of a tiny sphere or rod. Some kinds can grow in the human body and produce disease.

Bel-la-don'na (Ital. *bella*, beautiful, and *donna*, lady), an herb which produces excitement of the brain and great weakness. It enlarges the pupils of the eyes, and was formerly used by ladies to render themselves more beautiful.

Bi'ceps (Lat. *bis*, twice, and *caput*, head), the muscle upon the front of the upper arm which bends the elbow. Its upper end has two branches.

Bi-chlo'ride of mer'cu-ry, a compound of mercury and chlorine. It is very poisonous especially to bacteria of disease. When dissolved in water in the proportions of one part to five thousand, it kills disease germs.

Bi-cus'pid (Lat. *bis*, twice, and *cuspis*, a point), the fourth and fifth teeth from the middle upon each side of each jaw; each bicuspid ends in two points.

Bile (Lat. *bilis*), a yellow, bitter fluid formed by the liver cells and poured into the intestine. It is a part of the waste of the body, but while it is being excreted it assists the pancreatic juice and intestine in performing their work.

Bil-i-ru'bin (Lat. *bilis*, bile, and *ruber*, red), the coloring matter of the bile. It consists of broken down hemoglobin.

Blad'der, a thin muscular bag in which a fluid is stored in the body. It is especially applied to the bag in the pelvis containing urine.

Brain, the mass of nerve cells and nerve fibers which is inclosed within the skull. It is the seat of the consciously acting mind.

Bright's disease, almost any disease of the kidneys. Dr. Bright gave the first true description of kidney diseases. He died in 1858.

Bron'chus (Gr. *brogchos*, the windpipe), one of the numerous branches into which the trachea divides. It is applied to the smallest subdivisions as well as to the two main branches.

Bun'ion, a swelling of the great toe joint caused by tight shoes.

But'ter-ine, artificial butter made from butter and suet.

Cæ'cum (Lat. *caecus*, blind), the blind or closed end of the large intestine; the small intestine opens into the side of large intestine about an inch from its end.

Caf-fe-ine (*ka-fe'in*), a white, bitter alkaloid obtained from coffee.

Cal'lus (Lat. *callus*), hard and thickened epidermis. It is caused by rubbing a part during hard work, and is nature's way of protecting the deeper parts from injury.

Can-cel'lous (Lat. *cancelli*, a lattice), having an open or porous structure.

Cap'il-la-ry (Lat. *capillus*, a hair), a hair-like blood tube. Capillaries surround each cell of the body. From them plasma and oxygen go out from the blood to nourish the cells.

Car-bol'ic acid (Lat. *carbo*, coal, and *oleum*, oil), a poisonous substance obtained from coal tar. It is commonly used to kill disease germs and to prevent decay.

Car'bon (Lat. *carbo*, coal), a substance, of which the diamond is the pure crystallized form. Coal, charcoal, and lampblack are more common forms. Combined with other substances it is a part of the bodies of all animals and plants.

Car-bon'ic acid gas, a heavy, colorless gas formed when carbon burns.

Car'di-ac (Gr. *kardia*, heart), pertaining to the heart. It is also applied to the left end of the stomach, which lies just under the heart.

Car'pal bones (Gr. *karpos*, wrist), the bones of the wrist.

Car'ti-lage (Lat. *cartilago*), the soft substance commonly called gristle which covers the ends of bones within joints.

Casein (*ka'se-in*) (Lat. *caseus*, cheese), the part of the albumin of milk which forms the curd or clabber. In cow's milk nearly all the albumin is casein. The remaining albumin coagulates and forms a scum when the milk is heated.

Cat'a-ract (Gr. *kata*, down, and *rhegnunai*, to break), a cloudiness of the lens of the eye which shuts out the light.

Catarrh (*katar'*) (Gr. *kata*, down, and *rhein*, to flow), an excessive production of mucus from the nose and throat.

Cells (Lat. *cella*, a cavity), the smallest particles of the body capable of fulfilling the tests of life.

Cel'lu-lose (Lat. *cellula*, a little cell), a substance which forms most of the framework of vegetable tissues.

Ce-ment' (Lat. *caementum*, a builder's stone), the soft bone-like substance which fixes the teeth in their sockets in the jaws.

Cer-e-bel'lum (Lat. *cerebellum*, little brain), the rounded part of the brain situated under the cerebrum and above the medulla. It assists the brain to direct precise movements, as movements in which the body is balanced.

Cer'e-brum (Lat. *cerebrum*, brain), the uppermost part of the brain. In man it covers all the rest. It is the seat of consciousness and of thought. It receives all sensations, and sends all voluntary impulses to produce motion.

Chem'is-try, the science of the composition of substances. It is concerned in destroying or decomposing substances, and in forming new substances having different properties from the original substances.

Chlo'ral (*klo'ral*), a substance made from *chlorine* and *alcohol* and used to produce sleep.

Chlo'ride (*klo'ride*), a combination of the gas *chlorine* with another substance. Chloride of lime is used to kill disease germs. Chloride of sodium is common salt.

Chlo'ro-form, a volatile liquid made from *chlorine* and *formyl*. When its vapor is inhaled for some minutes it produces a deep sleep and complete insensibility to pain. When its inhalation is stopped, consciousness soon returns. It is used in surgical operations.

Chlo'ro-phyll (Gr. *chloros*, green, and *phullon*, leaf), the green coloring matter of leaves. It forms starch out of carbonic acid and water.

Chol'e-ra (Gr. *chole*, bile), a contagious disease of the intestine in which there is great pain, and an increased excretion and peristalsis.

Cho'roid (Gr. *chorion*, skin, and *eidos*, form), the middle lining of the eye. It carries the blood vessels for the nourishment of the inner parts of the eye.

Chyle (*kile*) (Gr. *chulos*, juice), the liquid produced by intestinal digestion.

Chyme (*kime*) (Gr. *chumos*, juice), the partly digested contents of the stomach as they enter the intestine. The word is falling into disuse.

Cilia (*sil'i-a*) (Lat. *cilia*, eyelashes), microscopic hairs upon the surface of certain cells. They are in constant motion to sweep out secretions and dust. They line the trachea and bronchi.

Clab'ber, or bonny-clabber (Irish *baine*, milk, and *clabar*, mud), sour and curdled milk.

Clav'i-cle (Lat. *clavis*, a key), the slender bone which extends from the breast bone to the shoulder. The collar bone.

Co-ag-u-la'tion (Lat. *con*, together, and *agere*, to force), the process of changing a liquid to a solid form of a different nature from the original liquid. Thus in curdled milk coagulation has taken place.

Cocaine (*ko'ca-in*), a bitter, white substance obtained from coca. It benumbs pain when applied to the nerves and produces excitement of the brain.

Coccyx (*kok'six*) (Gr. *kokkux*, a cuckoo), the small bone which forms the lower end of the backbone. It is shaped somewhat like a cuckoo's bill.

Cochlea (*kok'le-a*) (Lat. *cochlea*, snail shell), the coiled canal of the inner ear in which the nerves of hearing end.

Cold, an unhealthy state of a part of the body caused by exposure to coldness and dampness. It is an increased activity of the cells and an increased blood supply due to nature's attempt to repair the injury caused by the exposure. The injury is usually due to the growth of diseasc germs.

Co'lon (Gr. *kolon*), the large intestine.

Con-ges'tion (Lat. *con*, together, and *gerere*, to bring), overfullness of the blood tubes of a part of the body. It is the first stage of repair of wounds and of inflammation, and is nature's way of supplying an excess of nutrition to repair an injured spot.

Con-junc-ti'va (Lat. *conjunctivus*, joined together), the mucous membrane lining the eyelids and covering the front of the eyeball.

Connective tissue, the stringlike cells scattered through the whole body to keep the other cells of the body in place.

Conservation of energy, the law that no force is destroyed, but can be recovered as heat, electricity, motion, or in other forms.

Contagious disease (*kon-ta'jus*) (Lat. *contagio*, a touch), a disease which can be transmitted through the air.

Con-trac'tion (Lat. *con*, together, and *trahere*, to draw), the shortening and thickening of a muscle to produce movement in a part of the body.

Cook (Lat. *coquere*), to prepare food by the use of heat.

Cor'ne-a (Lat. *corneus*, horny), the round, bulging window in the front of the eyeball through which light enters the eye.

Cor'pus-cle (Lat. *corpusculum*, a little body), one of the cells which float in the plasma of the blood.

Cra'ni-al (Gr. *kranion*, skull), pertaining to the contents of the skull or brain.

Cricoid cartilage (*kri'koid*) (Gr. *krikos*, a ring, and *eidos*, form), the ring which forms the lower part of the larynx.

Cud, the food which most cloven-hoofed animals bring up from the stomach to chew the second time.

Cu'ti-cle (Lat. *cuticula*, little skin), the outer and insensitive layer of skin. The epidermis.

Cu'tis (Lat. *cutis*, skin). A more common name is the derma.

Deg'lu-ti'tion (Lat. *de*, from, and *glutire*, to swallow), swallowing.

De-lir'i-um (Lat. *delirare*, to rave), a state of mind in which judgment and reason are disordered and illusions of the senses are present. It is usually caused by fevers.

Delirium tre'mens, a form of delirium which occurs in drunkards. It causes the sufferer to struggle violently to escape the torments of his imagination.

Der'ma (Gr. *derma*, skin), the true skin, or the part beneath its insensitive covering.

Di'a-phragm (Gr. *dia*, through, and *phragnunai*, to fence), the muscular partition extending across the cavity of the body and dividing the chest from the abdomen. It is the main muscle of breathing.

Diastole (*di-as'to-le*) (Gr. *dia*, through, and *stellein*, to place), the relaxation of the heart during which it is being filled with blood in preparation for another beat.

Diffusion (Lat. *diffusio*), the act of passing through membranes apparently impervious. Thus, peptone passes by diffusion through the sides of the blood tubes in the walls of the intestine, and reaches the blood.

Di-ges′tion (Lat. *dis*, apart, and *gerere*, to carry or wear), changing food into such forms that it can pass through the walls of the blood tubes and become a part of the blood.

Diph-the′ri-a (Gr. *diphthera*, leather), an infectious disease in which there is a skin-like membrane covering the affected part, usually the throat.

Dis-lo-ca′tion (Lat. *dis*, apart, and *locare*, to locate), the separation of two bones whose union forms a joint.

Dis-til-la′tion (Lat. *de*, from, and *stillare*, to drop), the process of separating a substance which easily becomes a vapor from one which forms a vapor less easily. Heat is applied to the substance, and the vapor is *cooled* or *condensed* to a liquid in a coil of tube from which it runs in drops, and hence the name. As far back as the year 1200 the process was used by the Arabs in their endeavors to find an essential spiritual principle which would sustain life and restore youth.

Drop′sy, a uniform swelling of a part without pain or redness. It is an accumulation of lymph due to a disturbance in the circulation of the blood.

Duct (Lat. *ducere*, to lead), any tube which conducts a secretion away from a gland.

Du-o-de′num (Lat. *duodeni*, twelve), the beginning of the small intestine for the length of about twelve finger breadths.

Du′ra ma′ter (Lat. *dura*, harsh, and *mater*, mother), the periosteum lining the skull. It is very thick and sends prolongations into the main fissures of the brain to hold the brain in place.

Dys-pep′si-a (Gr. *dus*, ill, and *peptein*, to cook or digest), imperfect digestion of the food.

E-mul′sion (Lat. *e*, out, and *mulgere*, to milk), a milky-looking liquid consisting of microscopic drops of oil floating in a liquid.

En-am′el, the hard calcified tissue which covers the exposed parts of the teeth.

En′er-gy (Gr. *en*, in, and *ergon*, work), any force which can be made to do work. The energy of the body can be traced to oxidation within the cells.

Ep′i-der′mis (Gr. *epi*, upon, and *derma*, skin), the thin insensitive layer of cells upon the outside of the skin. It is sometimes called the cuticle.

Ep-i-glot′tis (Gr. *epi*, upon, and *glotta*, the tongue), the leaf-like lid upon the back of the tongue which closes the larynx when swallowing.

Ep′i-lep-sy (Gr. *epilepsis*, a seizure), a disease in which, at intervals a person suddenly falls to the ground unconscious, while all the muscles of the body contract strongly.

Ep-i-the′lium (Gr. *epi*, upon, and *thele*, nipple), the cells which cover the skin and mucous membrane and line the tubes of glands. Epithelium is a protection for the body, and does all the work of secretion and absorption.

Er-y-sip′e-las (Gr. *eruthros*, red, and *pella*, skin), a disease of the skin in which there is pain, redness, and swelling. It is caused by the growth of bacteria of disease in a wound. It varies in severity from a simple maturated scratch to a severe blood poison.

E-soph′a-gus or **œ-soph′a-gus** (Gr. *oiso*, I shall carry, and *phagein*, to eat), the tube connecting the mouth with the stomach.

E′ther (Gr. *aithein*, to burn), a colorless liquid which evaporates with such great rapidity that its vapor may catch fire if near a lamp. It is used to dissolve gums, and also, like chloroform, to produce insensibility during surgical operations.

E′ther (Lat. *aether*, the upper pure air where the gods abode, in distinction from the lower or true air in which man lived), the substance which is supposed to pervade all space, and whose vibrations are supposed to form light, heat, and electricity.

Eustachian tube (*yu-sta′ki-an*), the tube leading from the middle ear to the pharynx. It is named after its discoverer, Eustachi, an Italian physician, who died in 1574.

Ex-cre′tion (Lat. *ex*, out, and *cretus*, sifted), a waste substance extracted from the blood by the epithelium of a gland.

Ex-pi-ra′tion (Lat. *ex*, out, and *spirare*, to breathe), breathing out air from the lungs.

Ex-ten′sor muscles (Lat. *ex*, out, and *tendere*, to stretch), the muscles which straighten limbs.

Fat, a white greasy substance composed of carbon, hydrogen, and oxygen, but with much less oxygen than is in starch.

Fe′mur (Lat. *femur*), the thigh bone.

Fer'ment (Lat. *fervimentum*, boiling), a substance a small amount of which produces a chemical change in a large amount of another substance without losing its own identity or characteristics. During the process the most common ferment — yeast — liberates bubbles of gas, like a boiling.

Fe'ver (Lat. *febris*, a fever), increased warmth of the body due to poisons of disease.

Fi'brin (Lat. *fibra*, a thread), the stringy threads of coagulated blood albumin which permeate the blood and imprison its cells and plasma, causing it to become jellylike or clotted.

Fib'u-la (Lat. *fibula*, clasp), the long bone upon the outside of the shin bone.

Fil-tra'tion (Lat. *feltrum*, felt), separating a solid from a liquid by straining it through a porous substance.

Fis'sure (Lat. *fissura*, a cleft), one of the deep furrows upon the surface of the brain.

Fit, a sudden state of unconsciousness and of contraction of the muscles lasting only a minute or two. Epilepsy is a kind of fit.

Flex'or muscles (Lat. *flectere*, to bend), muscles which bend the limbs.

Fo'cus (Lat. *focus*, a fireplace), the point where rays of light come together when passed through a lens.

Food, anything which is assimilated by the body, and gives it weight, heat, or energy. The term includes water and mineral matter as well as vegetable and animal substances.

Front'al (Lat. *frons*, the forehead), pertaining to the region of the skull or brain behind the forehead.

Ful'crum (Lat. word meaning a prop), the fixed support around which a lever turns.

Gall (*gawl*), a name applied to the bile while it is stored in the bag under the liver.

Gan'gli-on (Gr. *gagglion*, a knot), a collection of nerve cells in the sympathetic system. Each looks like a grain kernel.

Gas'tric (Gr. *gaster*, stomach), pertaining to the stomach.

Gelatine (*jel'a-tin*) (Lat. *gelare*, to harden), a kind of albumin which forms the principal part of connective tissue. It will dissolve in hot water, and forms a jellylike or solid mass when cold. Glue is an impure form.

Germs (Lat. *germen*, a bud), a name loosely applied to bacteria.

Giz'zard, the muscular organ in a fowl's abdomen which grinds food to pieces and acts in place of teeth.

Gland (Lat. *glans*, an acorn), a collection of microscopic tubes which form a watery substance within the body.

Glu'cose (Gr. *glukus*, sweet), a form of sugar found in the grape, and produced artificially by the action of sulphuric acid on starch; it is also produced in the body by the action of the digestive fluids upon starch and sugar.

Glu'ten (Lat. *gluten*, glue), the albumin of grain.

Gly-co-chol'ic acid (Gr. *glukus*, sweet, and *chole*, bile), one of the principal waste substances in the bile.

Gly'co-gen (Gr. *glukus*, sweet, and *genein*, to generate), a form of sugar to which digested sugar and starch is turned by the liver.

Gout (*gowt*) (Lat. *gutta*, a drop), a swelling of a joint, especially of the great toe, caused by a disturbance of digestion and oxidation. It was formerly supposed to be due to a fluid or humor which flowed down in drops from the upper parts of the body.

Grippe (*grip*) (Fr. *grippe*, influenza), a kind of fever which occurs in epidemics. It is caused by the growth of a germ in the body.

Hash'eesh, the gum of a kind of hemp. It produces an excited and dreamy state of mind.

Ha-ver'si-an canals, the minute tunnels in bone through which the arteries run. They were discovered by Havers, an English physician, who lived in the seventeenth century.

Hem-o-glo'bin (Gk. *haima*, blood, and Lat. *globus*, a ball), the coloring matter of the red blood cells.

Hem-o-phil'i-a (Gr. *haima*, blood, and *philein*, to love), a state of the blood in which it will not clot.

Hem'or-rhage (Gr. *haima*, blood, and *rhegnunai*, to break), a flow of blood from a blood tube.

Hi-ber-na'tion (Lat. *hibernus*, wintry), passing the winter in a torpid state, as frogs and snakes do.

Hu'mer-us (Lat. *humerus*), the long bone in the upper part of the arm.

Hu'mors (Lat. *humor*, moisture), substances which were formerly supposed to circulate in the blood and to cause disease.

Hy-dro-chlor'ic acid, a compound of *hydrogen* and *chlorine*, commonly called muriatic acid. It is a violent poison.

Hy-dro-gen (*hy'dro-jen*) (Gr. *hudor*, water, and *genein*, to generate), a light, colorless gas. When ignited it unites with oxygen to form water.

Hygiene (*hy'ji-een*) (Gr. *hugieinos*, healthy), the science which tells how to keep living bodies in good working order.

Hy-po-der'mic injection (Gr. *hupo*, under, and *derma*, skin), the introduction of a solution under the skin by means of a hollow needle and syringe. The solution fills the lymph spaces and is absorbed into the capillaries or enters the circulation by way of the lymph.

Hys-te'ri-a, a nervous disease in which there is great lack of self-control. The sufferer easily gives way to the emotions, and especially to those of sorrow or mirth.

Il'e-um (Gr. *eilein*, to twist), the lower half of the small intestine.

In-ci'sor teeth (Lat. *incidere*, to cut into), the teeth in front, with which food is bitten into.

Incus (*in'kus*) (Lat. *incus*, anvil), the middle bone of the chain in the ear drum, which transmits waves of sound from the drumhead to the inner ear.

In-fec'tious disease (Lat. *in*, in, and *facere*, to make), a disease which has for its cause some matter which can multiply and grow when introduced into the body of a healthy man.

In-flam-ma'tion (Lat. *in*, in, and *flamma*, a flame), redness, swelling, pain, and increased heat in a part as a result of injury. It is nature's attempt to repair the part. Often it goes on to form matter.

In-san'i-ty (Lat. *in*, not, and *sanus*, safe), unsoundness of mind persisting for a considerable time.

In-spi-ra'tion (Lat. *in*, in, and *spirare*, to breathe), taking a breath into the lungs.

In-tem'per-ance (Lat. *in*, not, and *temperare*, to regulate), gratification of a desire which does not denote a real need of the body.

In-tes'tine (Lat. *intus*, within), the long tube in the abdomen in which digestion of food is completed after it leaves the stomach.

In-tox-i-ca'tion (Lat. *in*, in, and *toxicum*, poison), great mental excitement or lack of control, usually due to alcohol.

I'ris (Gr. *iris*, rainbow), the colored curtain in the eye behind the cornea.

Jaundice (*jahn'dis*) (Fr. *jaune*, yellow), yellowness of the skin due to a deficient excretion of bile by the liver.

Je-ju'num (Lat. *jejunus*, empty), the middle portion of the small intestine.

Joint (Lat. *jungere*, to join), the union of two bones.

Kid'ney, the organ which excretes urea.

Lab'y-rinth (Gr. *laburinthos*), an intricate arrangement of passages. The inner ear.

Lach'ry-mal glands (Lat. *lacrima*, a tear), the glands which produce the tears. They are situated in the orbit just above the eyeball, upon its outer side.

Lac'te-al tubes (Lat. *lac*, milk), the fine lymphatic tubes which take up fat from the intestine. During digestion they can be seen as milky lines across the mesentery.

Lac-tom'e-ter (Lat. *lac*, milk, and *metrum*, measure), an instrument for testing the purity of milk.

Larynx (*lah'rinks*) (Gr. *larugx*), the box in the upper part of the neck in which the windpipe begins. It contains the vocal cords.

Lau'da-num, opium dissolved in nine times its weight of alcohol.

Lens (Lat. *lens*, lentil), a transparent substance having curved surfaces. It has the power of changing the directions of rays of light.

Leu-co-ma-ine (*lew-ko'mah-in*) (Gr. *leukoma*, white), a class of substances resembling alkaloids which are found in the body during life. They are very poisonous, and much sickness is due to their presence.

Lev'er (Fr. *lever*, to raise), a pry; a rigid bar, one part of which is made to turn about a fixed point called a fulcrum, while an opposite part presses against a resisting object which it moves.

Lig'a-ment (Lat. *ligare*, to bind), the fibrous bands of connective tissue which bind bones together to form joints.

Liv'er, the large red gland in the upper right side of the abdomen. It forms bile and changes digested food to blood.

Lymph (Lat. *lympha*, a spring of water), the plasma and white corpuscles which have left the capillaries to nourish the cells of the body.

Lym-phat'ics, the tubes which convey lymph back to the veins. Lymph nodes are spongy bodies like grains of wheat which strain out waste or poisonous substances from the lymph. In the neck and groin they can be felt, and are usually called kernels.

Ma-la'ri-a (Ital. *malo*, bad, and *aria*, air), a disease caused by exhalations which arise from decaying vegetable matter.

Mal'le-us (Lat. *malleus*, hammer), the first bone of the chain of small bones which conveys sound waves across the tympanum.

Malt, grain, usually barley, soaked in water until it has sprouted about half an inch, and then dried The sprouting changes a large part of the starch to sugar.

Ma'ni-a (Lat. *mania*, rage), a form of insanity in which the intellect is so active that the judgment cannot control it.

Mar'row, fat which fills the hollow bones.

Mas-ti-ca'tion (Lat. *masticare*, to chew), properly, the grinding to which food is subjected by the teeth, tongue, and lips. Usually the mixing with the saliva is also included.

Mas'toid process (Gr. *mastos*, the breast), the rounded projection of bone situated behind the ear.

Me-dul'la oblongata (Lat. *medulla*, marrow), the part of the brain just above the spinal cord. It controls respiration and the contraction of arteries.

Mel-an-cho'li-a (Gr. *melas*, black, and *chole*, bile), a form of insanity in which a person's mental actions are excessively retarded. He feels downcast and thinks every one is avoiding him on account of his sins. It is the opposite of mania. It was formerly supposed to be due to black bile circulating in the blood.

Mem'brane (Lat. *membrana*, skin), any skin-like part of the body. The membrana tympani is the skin-like tissue which separates the middle ear from the outer ear.

Mer'cu-ry (Lat. *Mercurius*, the messenger of the gods), the liquid metal commonly called quicksilver.

Mes'en-ter-y (Gr. *mesos*, middle, and *enteron*, intestine), the thin fold of peritoneum which holds the intestine in place.

Met-a-car'pal bones (Gr. *meta*, after, and *karpos*, the wrist), the five slender bones just below the wrist which form the palm of the hand.

Met-a-tar'sal bones (Gr. *meta*, after, and *tarsos*, the flat of the foot), the five long bones in front of the ankle which form the front part of the foot.

Mi'crobes (Gr. *mikros*, little, and *bios*, life), the smallest living being. Microbes are plants, some of which may grow in the human body and produce diseases. They are the same as bacteria and germs.

Mi'cro-scope (Gr. *mikros*, little, and *skopein*, to see), an instrument which makes minute objects appear large.

Milk, the fluid which all female mammals secrete for the nourishment of their young.

Mi'tral (Gr. *mitra*, a head covering), the valve between the left auricle and ventricle; when closed it resembles a priest's miter or hat.

Mo'lar (Lat. *mola*, a mill), a tooth having a flat surface for grinding food. The last three teeth on each side of each jaw are molars.

Mold, a low order of microscopic plants which usually grow in the interior of substances. Common forms send up spore stalks which form the velvety coating popularly called mold.

Mor-phine' (Gr. *morpheus*, the god of sleep), the principal alkaloid of opium.

Mo'tor nerves (Lat. *movere*, to move), the nerves which carry orders from the brain or spinal cord to cause the cells of the body to act.

Mu'cous mem'brane, the soft, skin-like membrane lining cavities which open upon the surface of the body.

Mu'cus (Lat. *mucus*), the thin, slimy fluid produced by the epithelium lining the organs of digestion and respiration.

Mu-ri-at'ic acid (Lat. *muria*, brine), the common name of hydrochloric acid. The acid is very sour and corrosive. It combines with sodium to form common salt, but many of its combinations are poisonous.

Mus'cle (Lat. *musculus*, a little mouse), a collection of cells which can become thicker and shorter and so produce motion.

Nar-cot'ic (Gr. *narkoun*, to benumb), a substance which hinders the action of nerves and nerve cells and produces sleep.

Na'sal duct (Lat. *nasa*, the nose), the duct which carries tears from the eyes to the nose.

Nerve (Gr. *neuron*, nerve), a collection of the threads which conduct impulses between the cells of the body and the central nervous system.

Neuritis (*new-ri'tis*) (Gr. *neuron*, nerve), inflammation of a nerve.

Neu'tral-ize (Lat. *neuter*, neither), to make neither acid nor alkaline.

Nic'o-tine, the active principle in tobacco, named from the Frenchman Nicot who introduced tobacco into France in 1560.

Nu'cle-o albumin, a form of albumin containing iron and found in the nucleus of cells. From it hemoglobin is formed.