its organs begin to exert their ſpecific actions, by decom­pounding the nourishment conveyed to them, and forming new oxyds from the elementary principles of it, for the increaſe of the vessels and fibres ; and in this manner the first stage of vegetation commences.

Mr Gough has ascertained, that a germ in the act of vegetation requires to be continually excited by the stimulus of oxygen ; but that as ſoon as the seed lobes are exhausted, the young plant is in a state to derive its nutrition from the ground ; and then (and not till then) it finds itſelf in a situation capable of making future advances, unassisted by the stimulus of reſpirable air.

The infant sprout at first ſuffers only a ſuſpension of its energy from the abſence of pure air ; but if this necessary ſupport be withheld too long, it perishes by the putrefactive fermentation.

The lively green which the items and leaves of plants re­ceive from the action of light, cannot be imparted to them, provided the energy of the vegetative principle in them be ſuſpended : for after permitting a number of peas to pro­duce both extremities of their ſprouts in wet sand covered from the light by an earthen pot, Mr Gough placed five of them, on the 29th of April, in an inverted glaſs jar, contain­ing azot confined by water ; and three in another jar, in which a portion of common air was also inclosed by the same means. On the 30th the upper extremities of the ſprouts of the parcel last mentioned were green ; but though the experiment was prolonged to the 2d of May, thoſe in the other glaſs did not exhibit any perceptible alteration in size or colour. Two of them were now placed in a glaſs filled with atmoſpheric air, where they were left unobſerved to the 5th, at the end of which time the germs had vegeta­ted considerably ; the lower parts of them still remained white, but their oppoſite extremities had changed to their proper green. Hence it may be safely inferred, that greenneſs cannot be imparted to the ſprouts of seeds without the joint action of light and oxygen ; in which they are very different from the shoots that frequently proceed from ma­turer plants, when ſecluded from the atmoſphere : for, as theſe grow freely in cloſe glaſs vessels, placed in a window, and containing water and azot, the parts which are recent­ly produced continue to vegetate, in conſequence of their connection with the parent stock, and acquire the colour in question without the assistance of reſpirable air. See Plant, Tree, Germination, Botany, &c.

VEGETATIVE soul, among philoſophers, denotes that principle in plants by virtue of which they vegetate, **or** receive nourishment and grow. See the preceding article.

VEHICLE, in general, denotes any thing that carries **or** bears another along ; but is more particularly uſed in pharmacy for any liquid ſerving to dilute ſome medicine, in order that it may be administered more commodiouſly to the patient.

VEII (anc. geog.), a city of Etruria, the long and pow­erful rival of Rome ; distant about 100 stadia, or 12 miles, **to** the north-west ; situated on a high and steep rock. Ta­ken after a siege of 10 years by Camillus, six years before the taking of Rome by the Gauls : and thither the Romans, after the burning of their city, had thoughts of removing; but were dissuaded from it by Camillus (Livy). It re­mained standing after the Punic war ; and a colony was there settled, and its territory assigned to the ſoldiers. But after that it declined ſo gradually, as not to leave a single trace standing. Famous for the daughter of the 300 Fabii on the Cremera (Ovid). The ſpot on which it stood lies near Iſola, in St Peter’s patrimony ( Holstenius).

VEIL, a piece of stuff, ſerving to cover or hide any thing.

In the Romiſh churches, in time of Lent, they have veils or curtains over the altar, crucifix, images of saints, &c.

A veil of crape is wore on the head by nuns, as a badge of their profession : the novices wear white veils, but thoſe who have made the vows black ones. See the article Nun.

VEIN, in anatomy, is a vessel which carries the blood from the ſeveral parts of the body to the heart. See Ana­tomy, n⁰ 123.

Vein, among miners, is that ſpace which is bounded with woughs, and contains ore, ſpar, canck, clay, chirt, croil, brownhen, pitcher-chirt, cur, which the philoſophers call the *mother of metals,* and ſometimes s*oil of all colours.* When it bears ore, it is called a *quick vein ;* when no ore, a *dead vein.*

VELA, a remarkable cape on the coast of Terra Firma, in South America. W. Long. 71. 25. N. Lat. 12. 30.

VELARIUS, in antiquity, an officer in the court of the Roman emperors, being a kind of usher, whoſe post was behind the curtain in the prince’s apartment, as that of the chancellor’s was at the entry of the ballustrade ; and that of the ostiarii at the door. The velarii had a ſuperior of the same denomination, who commanded them.

VELEZ-de-Gomara, a town of Africa, in the king­dom of Fez, and in the province of Eriff. It is the an­cient Acarth. With a harbour and a handſome castle, where the governor resides. It is ſeated between two high mountains, on the coast of the Mediterranean Sea. W. Long. 4. o. N. Lat. 35. 10.

VELITES, in the Roman army, a kind of ancient ſoldiery, who were armed lightly with a javelin, a cask, cuiraſs, and ſhield.

VELLEIUS Paterculus. See Paterculus.

VELLUM, is a kind of parchment, that is finer, evener, and more white than the common parchment. The word is formed from the French *velin,* of the Latin *vitulinus,* “ be­longing to a calf.”

VELOCITY, in mechanics, ſwiftneſs ; that affection of motion whereby a moveable is diſpoſed to run over a cer­tain ſpace in a certain time. It is alſo called *celerity,* and is always proportional to the ſpace moved. Huyghens, Leibnitz, Bernoulli, Wolfius, and the foreign mathemati­cians, hold, that the momenta or forces of falling bodies, at the end of their falls, are as the ſquares of their velocities into the quantity of matter ; the Engliſh mathematicians, on the contrary, maintain them to be as the velocities themſelves into the quantity of mutter. See Quantity, n⁰ ii and 14, &c.

VELVET, a rich kind of stuff, all silk, covered on the outside with a cloſe, ſhort, fine, ſoft ſhag, the other side be­ing a very strong cloſe tissue.

The nap or ſhag, called alſo the *velveting,* of this stuff, is formed of part of the threads of the warp, which the work­man puts on a long narrow-channelled ruler or needle, which he afterwards cuts, by drawing a sharp steel tool along the channel of the needle to the ends of the warp. The prin­cipal and best manufactories of velvet are in France and Italy, particularly in Venice, Milan, Florence, Genoa, and Lucca: there are others in Holland, ſet up by the French refugees ; whereof that at Haerlem is the most conſiderable : but they all come short of the beauty of thoſe in France, and accordingly are sold for 10 or 15 *per cent.* leſs. There are even ſome brought from China ; but they are the worst of all.

VENAL, or Venous, in anatomy, ſomething that bears