

state. The fluoric acid gas, into the composition of which the fluorine enters, is remarkable for its property of corroding glass.

Hydrogen, or, as it has been called, inflammable air, is one of the component parts of water. It is an exceedingly inflammable substance, and, when united with oxygen gas, explodes with great violence on the application of a flame, and produces water. It is an ingredient in many other compounds, and sustains an important place in the constitution of those which appear to be the most essential to animated beings.

Carbon or charcoal is another elementary principle, and enters into the composition of all vegetable and many animal substances, and is also found in the mineral kingdom. The diamond is a crystallized carbon. Carbon and oxygen combined produce carbonic acid, a substance formed in large quantities in the atmosphere. It unites with many other bodies, both the earths and the metals.

Nitrogen constitutes four fifths of atmospheric air, and is an ingredient of animal substances. This element is remarkable for its negative qualities ; it is neither combustible, nor a supporter of combustion ; neither acid nor alkaline. No animal can exist in it ; not because it has any injurious effect upon the lungs, but solely from the absence of oxygen. Nitrogen, however, when it combines with other substances, forms compounds which are not distinguished by negative qualities, but are highly important in the arts and medicine.

Boron is a dark olive-coloured powder, and is the base of borax, a substance found in the East Indies, and in the lakes of Thibet and China. It has no taste, and is insoluble in water.

Silicon is the base of silica, or common flint, a substance very extensively distributed in nature, forming a great portion of quartz, granite, sandstone, and other rocks. It has a brown colour much resembling boron, and, like that substance, is highly inflammable. Silica is an oxyde of silicon, and is produced by its combustion, during which process the oxygen of the atmosphere unites with it.

Phosphorus is never found, in nature, uncombined ; nor can it exist in this state, for it is exceedingly combustible, and (according to Dr. Higgins) burns at a temperature of 60° Fahrenheit, in atmospheric air. It combines with nearly all the metals, the earths, and the principles already described.

Sulphur is sometimes found in an uncombined state, and