

himself competent to attend to this little matter for himself; so that the inebriate and the debauchee are the natural fruits of the latter, as he is the plant derived from the former.

If we can ascertain (1) what Alcohol is? which can be done by comparing it with recognized foods; and (2) what the action is, and where it originates when it is brought into contact with the living structures? it will enable us to solve the problem of its "food" and "medicinal" properties. Medical Science was wholly in favor of its use when we emerged from the period of the "middle ages." Since that time investigation and research have enabled us to know more of natural laws, and a better understanding and more definite conclusions ought to obtain with those who assume to be the exponents of public opinion on this matter, as all the points on which its solution depend are admitted by those who have kept abreast with modern investigation. The "Dispensatories" of all countries agree as to its general characteristics when pure.

Wood's U. S. Disp. says:—Alcohol is the intoxicating ingredient in all spirituous liquors, including wine, porter, ale, beer, cider and every other liquor which has undergone *vinous fermentation*. This occurs at 60° to 70° Fah., when the sugar—cane or grape—is converted into carbonic acid gas and alcohol. The American Disp. says:—Undiluted it is a powerful stimulant and irritant poison, rapidly causing intoxication, and, in large quantities, death. The French, British and Dublin Disps. say the same; and no eminent medical authority disputes this position when referring to it in its pure state. Water, in its pure state, presents no such characteristics as are ascribed to alcohol, but was designed by nature as the vehicle in which all nutrient elements are floated to their destination for assimilation, and, in which all the worn out material of the tissue, as well as other foreign matter, is carried to the depurating organs for elimination. When a small percentage of alcohol is secreted in water its true character becomes obscured to the general observer, hence the disputes in reference to its chameleon like character.

Alcohol does not grow like other recognized foods, and no bubbling spring affords it. It is a product of fermentation, which is a process of death, decomposition and decay of what originally contained life, having been organized under vital laws. Alcoholic beverages contain different percentages of alcohol, ranging from two and a half to four in lager, and forty to fifty-four in the different distilled spirits of commerce. If it is claimed that these beverages contain other nutrient properties than alcohol, why so much effort to defend it? But do they contain nutrient properties? Let us bear in mind a fundamental principle in nature—that foods possess VITAL PROPERTIES, having been organized under the laws of growth. This position is sustained by all naturalists, who agree that the animal kingdom, man included, must derive their food from the organic world. This general principle is also recognized by the instinctive intelligence of the entire animal creation, including the savage and civilized races of men. Another important question presents itself; can vitalized substances exist as such in contact with alcohol? I shall quote a few authors on this point, and would say parenthetically that the conclusions arrived at were not the ASSUMPTIONS of mistaken men who possibly enjoyed an occasional "smile," but the unmistakable language of natural laws.

Pereira, in his *Materia Medica*, says:—"On plants alcohol acts as a rapid and fatal poison. Is the fact of its being 'a rapid and fatal poison' to the vegetable kingdom, evidence to 'Microscope's' mind that it is 'food' for the animal? This eminent author says, also, that 'Leeches immersed in spirit die in two or three minutes.'

Fontana says:—"When half the body of a leech was plunged into spirit, this part lost all of its motion, while the other half continued in action." This experimentalist also states that "spirit killed frogs." "Applied to the right cranial nerve of a frog, it destroyed the power of the animal to move its right foot." Dr. Munroe states, "When applied to the hind legs of a frog it diminished their sensibility and mobility."

Fontana states, "Turtles were killed by spirits administered through the stomach, or injected beneath the skin." Before death the animal became motionless.

Flotrens found that birds lived longer with their brains laid bare and partly removed, than when alcohol was injected into their stomachs. "The senses were retained when the cerebellum was removed, while alcohol destroyed them." Its effects on fishes is similar to what it is on other animals, as Pereira proved by numerous experiments. He "injected four drachms of alcohol into the jugular vein of a dog," which caused the "blood to coagulate and produced instant death." Introduced into the stomachs of cats, dogs or rabbits it produces apoplectic conditions. He also says:—"The effects of alcohol on man are those of a powerful caustic and irritant poison."

"To whatever part of the body (of man) alcohol is applied it causes cont action and condensation of the tissues, and gives rise to pain, redness, heat and other symptoms of inflammation." This eminent authority names many diseases as the result of the habit of using alcoholic liquors, among which are "mania, delirium tremens, insanity, tuber-