

both these Provinces calls loudly for improvement. The moss upon the bark, the suckers around the *grass-bound* stem, the superfluous wood upon the branches, and the wounds which the roots of the tree have received from the ploughshare; and the body and branches, from the horns of oxen and the teeth of browsing cattle, are proofs of the necessity for it; but as the limits of our present paper prevent us from giving this subject a portion of its merited attention, we must reserve it for future consideration, as we intend to enlarge upon the cultivation of those fruit-trees, which experience has proved thrive and ripen their fruit in our Provinces.

BOTANY.

"From giant oaks, that wave their branches dark,
To the dwarf moss that clings upon their bark."

BOTANY may be divided into three branches. 1stly, The physiology of plants, or a knowledge of the structure and functions of the different parts of them. 2dly, The systematical arrangement and denomination of their several kinds: and, 3dly, their economical, useful, or deleterious properties. The two first are of essential service to each other, and the last is only to be pursued with any certainty by such as are versed in the other two. Botany has one advantage over many other useful and necessary studies, that even its first beginning are pleasing and profitable. The objects of it are in themselves beautiful, and the charm is increased by the interest, which science gives them: and while the study expands and cultivates the mind, the practice of it gives health to the body. The vegetable frame is not merely a collection of tubes holding different fluids, but it is endowed with life, capable of imbibing particular fluids, and of altering their nature according

to certain laws, forming peculiar secretions, giving use to their various juices and fruits. This is the exclusive property of a living being. Animals secrete fat and milk from food which has no resemblance to those substances. So vegetables secrete gum, sugar, and various resinous substances from the uniform juices of the earth, or perhaps from mere water and air. The principle of life keeps the most different fluids, separated by the finest film or membrane, and in proper action, but death terminates secretion, and dissolution is absolute. The microscope has assisted botanists greatly in detecting the general structure of vegetables, and the science is indebted to the magnified dissections of M. Mirbel for his recent discoveries.

COMMUNICATION.

[For the New Brunswick Agriculturist.]
UPON THE EMPLOYMENT OF COWS
FOR DRAUGHT.

Is a June number of "The New England Farmer," I read a communication respecting the use of "*Cows as beasts of draught.*" Among other observations, the writer mentions that the *Flemings* employ the cow in the cart, the plough, and drill four or five hours every day, and he suggests the benefit that the poor man would receive from the use of his cow as a beast of burden, if working her moderately would not injure her secretion of milk. I confess to you that I entertain a similar opinion, and although the suggestion may meet with opposition from prejudice and usage, still I consider the subject worthy of attention. The suggestion will receive support from the employment of other animals during the time of their giving milk: the mare is an instance. Two questions present themselves respecting the use of the cow as an animal of labour. In the first place, would this labour increase or diminish the quantity of milk? and in the second place, would it vitiate the quality of the secretion?

The reply to the first question involves another, namely, is rest essential for the secretion of milk? We find that cows after feeding seek the shade during the day, and lay down, and that their udders in the evening are frequently so distended, that the milk spontaneously flows from them: hence we would conclude that the feeding and alter-