

is composed of oxygen and nitrogen, the latter being four-fifths of its bulk. We all know that they do take carbon from the atmospheric air, throwing off the oxygen, and it is no more than reasonable to conclude that they appropriate the nitrogen to their own-use.\*

If this hypothesis be admitted the application of ammonia to soils is superfluous. But again, and I will have done with this criticism. Can it for one moment be supposed that a grain of wheat can take up by absorption, a sufficient quantity of ammonia to supply the whole plant, seeds and all, with all the nitrogen required for its perfection? It must be borne in mind, while considering this question, that twelve-thirteenths of the bulk of the solution absorbed by the grain, is simple water, and therefore that but one-thirteenth of the same bulk is sulphate of ammonia, that but one-third of this is ammonia, the other two thirds being water and sulphuric acid, that about five-sixths of the weight of ammonia, is nitrogen, the other sixth being hydrogen. Hence, wheat steeped as directed by Mr. Campbell, and absorbing the whole of the solution, will contain only one two-hundred and thirtieth of its own weight of nitrogen, a portion so inconceivably small, as to entitle the theory of Mr. Campbell to the appellation of the Homeopathic practice of agriculture. It is pretty well known to chemists, that grass, hay, &c. contain one per cent of nitrogen, that is, that one hundred pounds of hay contain one pound of nitrogen. I have not been able to find any close analysis of wheat, but it must of necessity contain a much larger proportion of nitrogen than grass does, on account of its possessing a greater abundance of gluten, an essential element of which is nitrogen. Therefore the additional of half a pound of nitrogen, (which is the greatest quantity Mr. Campbell's theory requires,) to an acre of wheat, could only result in adding fifty pounds of wheat in the staw to the harvest that would have been yielded without it: that is, that this plan of manuring can only result in increasing the crop, straw and all, of an acre of ground, fifty pounds. Still, as I stated before, it is worth trying, because the cost of the experiment is a mere trifle, and there may be things in agriculture as well as elsewhere, not dreamed of in our philosophy. In the chemical proportions above referred to, I have only attempted an approach to the various quantities, but I believe a sufficiently close approximation to exactness has been attained for all practical purposes, especially for that in view.

Baltimore, Aug. 1844. GIDEON B. SMITH.  
—*Albany Cultivator.*

\* I am fully aware that chemists deny that plants derive any benefit from the nitrogen of the air, because, say they, "nitrogen cannot be made to enter into combination with any element except oxygen, even by the most powerful chemical means." Are there not many other combinations in the vegetable organism, that the same powerful means cannot produce, but that the chemical means of nature can and does continually?

**Go to Work.**—There are thousands and tens of thousands of young men among us whose only resource against the accumulated miseries of a destitute manhood, and a disgraceful old age, is the workshop of the farm. It is useless, at this day, for every young man to aspire to the lot of living by his wits, for it is a task in which few who undertake it have the talent requisite to ensure success. How many there are at present "loafing" away the precious years of youth in our cities and villages, who ought to be acquiring the rudiments of some honorable and useful trade. Learning is by no means incompatible with the practice of the arts, for, the more one "knows" the more likely will he be to succeed, and to do honor both to himself and the profession in which he is engaged.

## PURCHASING BUTTER.

"Is your butter good?" said I to the farmer.

"Good! my wife has made butter these twenty years, and I should think she ought to know how to make good butter by this time."

He was evidently offended.

"Well, let us examine." The cover was taken off the tub, the clean white cloth (which had been wet in brine,) rolled up, and the yellow treasure revealed. It certainly did look good.

"It tastes sweet; but how very salt it is."

"We always make our butter salt, to have it keep this season."

"Let us see if the buttermilk is as well worked out as the salt is in."

Some of the lumps were then pressed down with the ladle.

"Now, my friend, (said I,) if your wife has made butter these twenty years, she does not know how to make good butter; for no butter can be good until all the buttermilk is worked out. If that is done, you need not salt it so bad to have it keep well in any place. A very little more care and labor would have made this excellent butter; but lacking that little, it is only a second quality—as you shall acknowledge, when I show you a sample of good butter."

We went in, and I took up a roll from a firkin of first rate butter. It was smooth, clear, and handsome; the hand of woman had not been on it from the time it left the churn until now; all the work had been done with a ladle.

"If you will get one drop of buttermilk from that butter, you shall have the whole free."

"Now, taste this, and taste your own, and say, honestly, if you would not give a higher price for this than your own. Look at it—see how clear and transparent these minute globules are, and how intimately they are blended with the whole mass. Until those all disappear, the butter will keep sweet; and no butter will keep long when they are ever so slightly colored by the milk."

The farmer simply remarked, that there was a difference in butter, and left to find a less critical or more ready customer.

It is strange, that when everybody loves good butter, and is willing to pay for it, our farmers' wives and daughters do not take pains to make a better article. It's the women's fault that we have poor butter, generally, and we must hold them responsible. It is perfectly easy to make good butter. The only requisite is care. Good butter will always command a good price, in the duller market; while poor butter is a drug at any price.

When any of my lady readers make butter again, just let them imagine that I am to have a nice bit of bread and butter with them, and that I shall detect the least particle of milk, and am not fond of too much salt.—*New Genesee Farmer.*

## NECESSARY HINTS TO THOSE THAT WOULD BE RICH.

Written by Franklin, in 1736.

The use of money is all the advantage there is in having money.

For six pounds a year, you may have the use of one hundred pounds, provided you are a man of known prudence and honesty.

He that spends a groat a day idly, spends idly above six pounds a year, which is the price for the use of one hundred pounds.

He that wastes idly a groat's worth of time per day, one day with another, wastes the privilege of using one hundred pounds each day.

He that idly loses five shillings' worth of time, loses five shillings, and might as prudently throw five shillings into the sea.

He that loses five shillings, not only loses that sum, but all the advantage that might be made by turning it in dealing, which, by the time a young man becomes old, will amount to a considerable sum of money.

Again, he that sells upon credit, asks a price for what he sells equivalent to the principal and interest of his money for the time he is to be kept out of it, therefore, he that buys upon credit pays interest for what he buys, and he that pays ready money might let that money out to use; so that he that possesses any thing he bought, pays interest for the use of it.

Yet, in buying goods, it is best to pay ready money, because he that sells upon credit expects to lose five per cent by bad debts; therefore he charges, on all he sells upon credit, an advance that shall make up that deficiency.

Those who pay for what they buy upon credit, pay their share of this advance.

He that pays ready money escapes, or may escape that charge.

A penny saved is twopence clear,  
A pin a day is a groat a year.

**White native Strawberry.**—A. Goodwin, Ashfield, Mass., describes in the Mass. Plowman, a kind of strawberry, which he thinks is a native of the Berkshire hills. He says, "It is larger than the common field strawberry, very hardy, and yields a great quantity of fruit, producing in succession three or four weeks. When ripe it is of a yellowish white, contrasting beautifully with the red strawberry. It has a fine flavor, and when picked always cleaves from the hull. I have distributed them in Northampton and West Springfield, where they are much admired."—*Alb. Cult.*

## SIBERIAN SPRING WHEAT.

THE Subscriber offers for Sale, 100 bushels of this very superior variety of SPRING WHEAT, warranted pure and free from any mixture.

JAMES FLEMING,  
Seedsman and Florist, Yonge Street.  
Toronto, Oct. 22, 1844. 1in

THE Subscriber offers for Sale TWO COLTS (male and female) by *Knickerbocker*, out of *Rose and Maggy*. *Knickerbocker* is sired by *Knickerbocker*, a thorough-bred powerful Racer from Long Island (got by an English full-blooded Horse and Dam imported at New York,) out of a half-bred American Mare, owned by John McDonald, Esq., of Gart, Cornwall, Canada West. *Rose and Maggy* are sired by *Roscesvalles*, out of Mares at the West and North Rivers, near Charlotte Town, Prince Edward Island.

EDWARD STEWART.  
Dalhousie, New Brunswick, }  
80th Aug 1844. }