

Poetry.

THE HOURS.
BY WILLIAM CULLEN BRYANT.

The hours are viewless angels,
That still go gliding by,
And hear each moment's record up
To Him who sits on high.

The poison of the nectar.
Our heart's deep flower cups yield,
A sample still they gather swift,
And leave us on high.

And some fly on pinions
Of golden gird and blue,
And some fly on with drooping wing
Of sorrow's darker hue.

And as we spend each minute
That God doth us hath given,
The deeds are known before His throne;
The tale is told in Heaven.

And we who walk among them,
As one by one departs,
Think not that they are hovering
Forever round our hearts.

Like summer bees that hover
Around the idle flowers,
They gather every act and thought,
These viewless angel hours.

And still they steal the records,
And bear it far away;
This mission flight by day or night,
No mortal power can stay.

So teach me, Heavenly Father!
To speed each flying hour,
That as they go, they may not show
My heart a poison flower.

Chinese Agriculture.

At the present moment, when the most heart-rending scenes of human misery are occurring in Europe, in consequence of famine, it cannot be uninteresting to turn for a moment to the subject of Chinese Agriculture. Every one is familiar with the story, that from the remotest antiquity, once in each year, the Sovereign of that Empire descends from his throne to hold the plough, while the Empress plies the loom. This lesson of industry is not without political object, and in a nation, ruled by patriarchal sway, may have been quite as "protective a policy" as any tariff that the ingenuity of economists could devise. China proper, contains about \$30,716,360 English acres of ground, and it is supposed, that one-half of the land is capable of cultivation, whilst each acre can sustain an individual. If such be the fact, we find that there is arable land in the Empire sufficient to sustain 415,000,000 inhabitants, and that the census of 1812 by making the number 361,279,869 brought it within about 54,000,000 of its utmost capacity of internal production.

The paternal government has, therefore, with a provident foresight, always maintained store-houses and depots, whilst it taught the people the necessity of careful and economical cultivation. By dressing chiefly in cotton and silk, and importing the few furs and woolens they consume, a large part of the empire is saved the waste of grazing, especially as their chief animal food is pork. The Chinese laborer would consider meadows of every kind as land of a state of nature, and utterly useless. Their great crops, therefore, are grain. For rice, the staff of Indian life, every thing else is sacrificed. They allege that a field of grain will yield as much straw for the nourishment of cattle as it would have produced hay, besides taking into account the advantage of the cereal product for the sustenance of man, in which they can spare a small portion in plentiful seasons, to nourish such beasts of burden as are absolutely required on their farms.

It is said, upon good authority, that a Chinese agriculturist would smile if it were intimated that the soils had need of rest occasionally, and would be destroyed unless permitted to lie fallow for a season, or were employed in cultures designed only for pleasure. The result is, that China is wrought like a garden, and that no oil is lost that can contribute to the minutest improvement of the earth. The Chinese soils, in general, are superior to those of Europe, and all the farms, even in the northern provinces, yield annually two crops; whilst it is asserted that those in the South often produce five in the course of two years, without having been permitted to lie fallow for a single season during the thousands they have been devoted to the purposes of agriculture. The whole country is irrigated with the greatest care. A network of canals laces the empire, diffusing water throughout the whole country, as in the trenches of a garden; and as all the immense transportation of the nation is conducted on them by the sail and earl, the innumerable beasts of burthen that consume the products of the earth in other countries, are dispensed with in China.

The Chinese do not lose an inch of available ground. The rocky hills which in Europe are converted into vineyards, are, by their industry, made productive of grain. Pleasure grounds of great extent; parks for the maintenance of deer alone, and waste land devoted to the sports of a dissipated court or nobility, have no existence in the empire. The small gardens surrounding their country retreats, diversified by useful and beautiful cultures, are the only luxuries of this sort permitted by the national spirit of economy; yet, by delightful situations, judiciously improved, and by picturesque scenery, they endeavor to compensate, in miniature, for those vast domains, which, in other countries, are at once the objects of an aristocracy's pride and the causes of a people's poverty.—*Sou. Quarterly Review.*

Milk, Butter and Cheese.

Milk consists of sugar, casein, salts, globules of fat, & water. It often, in addition, contains some aromatic principle, derived from the food of the cow.

After the milk is drawn from the cow, the vital elements which kept the carbon, oxygen, and hydrogen so combined as to form sugar, casein, and water, are gradually converted into another compound of these elements called lactic acid. In popular language this is called the souring of the milk.

The fat of butter is in globules, mixed with the water of milk. These globules, when the milk is at rest, gradually ascend to the surface, taking with them a little casein, water and sugar, or lactic acid.

This compound can be skimmed from the surface, and is known by the appellation—cream.

If this cream be heated, the globules of fat burst and unite together. Being lighter than the other constituents of the cream, they ascend to the surface, forming an oily fluid. This may be taken off, and if put into a cool place, it solidifies, and is in fact pure butter. Butter so obtained will keep a long time without becoming rancid, but it has not the taste of the butter of the shops, and is not used as an article of diet.

To obtain butter for food we apply heat, the source of which is mechanical agitation. The cream is put into a churn, the flappers of which are made rapidly to revolve. When by this procedure the temperature is raised from 4 to 10 deg., the globules burst and adhere together. Butter so prepared, besides pure fat, contains sugar, a little casein, and any aromatic principle the cream may possess, and is more suited to our taste than the pure butter obtained by the direct application of heat.

Butter made in this manner will not keep fresh long. The sugar is converted into lactic acid; and butter in which this change has taken place, is said to have become rancid. If an excess of sugar be artificially added, then this change does not take place. Common salt and saltpetre have likewise the power of retarding this change. In practice, it is usual to add a mixture of these three substances—sugar, salt and saltpetre—to butter which is desired to preserve for any length of time.

Casein may be obtained in a tolerably pure state by adding any acid to new milk, skim-milk, or buttermilk. When this is done, the casein, or curd as it is commonly called, falls to the bottom. The most remarkable property of casein is that it is soluble in a weak solution of potash or soda—that is to say, that it forms a compound with them which is soluble in water.

New Milk contains carbonate of soda. In fresh-drawn milk the casein is combined with this, and is therefore soluble in and remains in the water of the cheese. But as the sugar of the milk is gradually converted into lactic acid, the lactic acid combines with the casein, forming lactate of soda, and the casein, now insoluble in water, falls to the bottom in lumps filled with water.

When it is desired, however, to obtain this casein artificially, it is not usual to wait until the lactic acid is naturally formed, but some acid is added. The one commonly employed, at least in this country, is the muriatic acid, as contained in the dried stomach of the calf. When this is added to milk, skim, milk or buttermilk, the casein falls to the bottom. It is taken out of the fluid, subjected to strong pressure, to squeeze out the water which it has mixed up with it and salted. It is now called cheese.—[T. Lindley Kemp.]

Keep Your Back Warm.

About twenty years ago, I read a medical treatise which stated "that the back is the most valuable part of the human system, through which most of the cold enters."

Recollecting that when I took cold suddenly, I noticed that my back was generally cold, I had my waistcoat cushioned along the back, six or eight inches wide, since which time I have not taken cold one-quarter as often as before.

Several who have tried the experiment at my suggestion, have informed me that in their opinion they have been materially benefited thereby.

The philosophy of it is, that by putting more clothing along the spine than elsewhere, other parts get chilly first, and warn us to guard against taking cold, while the increased clothing at the same time prevents such a sudden change of temperature. Take care, coming from the back is generally too late, the cold has already become seated.

I hold that cold and damp feet cause many colds, because they induce to chill the back more than because they cool the extremities.

None of the lower animals the Lord has clothed has less clothing on the back than upon other parts of the body. It looks frightful to see so many delicate persons go with their backs and feet half clothed. But while hosts are cracking up for agricultural societies and bureaus to improve the breed of our domestic animals, the favoured of the people are worshipping the great Moloch of fashion, and sacrificing upon the shrine multitudes of the choicest portions of our race.

The Eyes.—Mothers should impress upon their families the importance of a judicious care and use of the eyes.

The room in which evening occupations are going forward should be well lighted, with an equally distributed illumination—so much as to avoid those thick lamp shades, so common, by which concentrating the light on one object, of peculiar attention, produces those painful changes, whenever the eyes are liable to other parts of the chamber. The injurious habit of reading by a side-light we should strongly deprecate, as by it one eye is exposed to the admission of a greater degree of light than it should, receiving consistency with its sympathy with its fellow.

Much use of the eyes immediately after a full meal is injurious; every feeling of the system showing that nature requires rest from all exertion at this time.

The morning hours are the most favourable for exercise of the eyes; but let extremes be avoided; no consideration should lead to bed being permitted—the recumbent position, at all times a bad one when the eyes are in use, is especially so when the individual is only arousing himself from a state of perfect repose and the eyes are just recovering from the weakness experienced on first awaking.

The eye has been denominated by a distinguished German writer, a microcosm. "As man," says he, "is to be considered a little world [microcosm] in relating to the earth upon which he lives even so must the eye be considered a microcosm in regard to the individual man." Hence the reason why the eye is so sure an index of the state of health. Notice how healthy the eye is when the harmony of health pervades the system; also, its dull heavy look when disease has entered the citadel. Whosoever, then, would gain and preserve the blessing of sound permanent vision, must bear in mind that the eye is a microcosm, and neglect nothing that is necessary to the preservation of general health.—Dr. Reynolds.

CARRYING BUNDLES.—Many people have a contemptible fear of being seen to carry any bundle, however small, having the absurd idea that there is a social degradation in the act. The most trifling as well as weighty packages must be sent to them, no matter how much to the inconvenience of others. This arises from a kind of pride. There is a pride that is higher; that arises from a consciousness of there being something in the individual not

to be affected by such accidents—worth and weight of character.

This latter pride was exhibited by the American son of Jerome Napoleon Bonaparte. While he was in College, at Cambridge, he was one day carrying to his room a broom he had just purchased, when he met a friend, who, noticing the broom with surprise, exclaimed,

"Why did you not have it sent home?"

"I am not ashamed to carry home anything which belongs to me!" was the sensible reply of young Bonaparte.

Very different pride was this that of a young lady whom we know, who always gave her mother all the bundles to carry when they went out together, because she thought it vulgar to be seen with one herself.

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