

16th. Because all nations have been so alive to the evils of wine drinking, as to either prohibit it, or to refrain its use.

17th. Because I like "the fruit of the Vine," or the pure juice of the grape such as I believe Jesus gave to his disciples, and which was common in Judea; but Port, Madeira, Sherry, and Champagne, and every kind of brandied wine I am determined not to touch.—*Peninsular Herald.*

### DEW.

The form of moisture known as dew arises from the deposition of water previously existing in the atmosphere as aqueous vapor, which is deprived of its vaporous shape by contact with colder bodies. Grass and leaves arrive at a lower temperature than the circumjacent air, in the following manner. All bodies are constantly radiating heat, and their temperature can only remain constant by their receiving from other objects as many rays of heat as they emit. The temperature of a substance situated so as to radiate a greater number of calorific rays than it receives, must fall; such is the condition of grass, leaves, and substances of this sort, on the surface of the earth; on a clear evening, their rays of heat are emitted into the air, and lost in space, as nothing is present in the atmosphere to exchange rays with them. If a thermometer be placed upon a grass-plot, on a clear balmy evening, it will frequently indicate a temperature from ten to fifteen degrees lower than that of the surrounding air; but the thinnest cambric handkerchief held stretched above it will, by exchanging rays of heat with the adjacent grass, cause the thermometer to mark an increase of temperature. The passage of a thick cloud over the spot will be followed by the same result. But on a clear evening, as the calorific rays of grass and leaves become dissipated, their temperature necessarily diminishes, and falls below that of the surrounding air, and some of the aqueous vapour therein is converted into water by contact with the grass or other bodies whose heat is dissipated.

Grass, wood, leaves, and filamentous substances are good radiators, and consequently dew is usually deposited upon them, but rarely upon smooth stones or sand, for two reasons—firstly, because they are not good radiators; and secondly, because some of the heat lost by radiation is restored by their contact with the earth. Thin clothes are also good radiators; and Campbell correctly says:—

"The dew on his robe was heavy and chill,  
For his country he sighed when at twilight repairing  
To wander alone by the wind-beaten hill."

As the most copious deposit of dew takes place when the weather is clear and serene, the poet, when using the epithet 'wind-beaten' refers, no doubt, to the general character of the hill, and not to the state of the evening.

At the time aqueous vapour is being condensed or converted into dew, it communicates to the body effecting the conversion the whole of its latent heat, which is so very considerable that it would be sufficient to raise nine hundred and fifty times the weight of water condensed into dew one degree of Fahrenheit, or more than five times the weight of water from the freezing point to the boiling point. Incredible as this may seem, it must actually happen, and the whole of this vast amount must be dissipated by the substances upon which any dew is deposited ere the deposition can proceed. This enables us to form some conception of the prodigious powers of radiation possessed by dew-condensing plants. It also presents water to us as a sort

of what may be termed a heat or caloric regulator, for when water is converted into vapour or steam, it absorbs precisely the same amount of heat as is liberated on the condensation of steam or vapour into water; thus when the weather is very hot, large quantities of water are converted into vapour, thereby withdrawing or rendering latent a vast amount of heat, which must otherwise prove injurious to animal or vegetable life. On the other hand, by being condensed into dew, it restores to vegetables that heat which they had dissipated by radiation, and which, but for such restoration, might possibly operate to impair or destroy their vital functions. This is one reason why places near the sea are always more temperate; that is, enjoy a more equable climate than those remote from it.

The reason why water distilled from aqueous vapour on the leaves of plants takes the form known as dew, depends upon the combined and contemporaneous action of three several and distinct forces, all operating during its formation. The three forces are—the mutual attraction between the dew and surface of the leaf, or substance upon which it is deposited, called "adhesion;" the mutual attraction of particles of water for each other, termed "cohesion;" and the force of "gravity," or its own weight. During the earliest period of the deposition of dew, the first force, or that of adhesion, predominates, and a thin film of moisture is spread over the whole radiating surface, or, perhaps it would be more correct to say, is spread over the whole surface proportionably to the radiating power of its several parts. As the deposition progresses and more water is distilled, the second force, or that of cohesion, asserts its influence, and this thin film of water is broken up into a number of minute globules; these gradually increase in size as more water is condensed, and the third force, the force of gravity, or the weight of the dew, begins to be felt, which at last overcoming the force of cohesion, the poor little globules are ruthlessly torn from the leaf or radiating surface, and roll dishonoured on the ground. Some few, however, glide to a point in the leaf or blade of grass, where the force of adhesion, favoured by some accidents of surface, successfully renews its struggle with the force of gravity, and the fortunate little globules are sustained aloft. The three forces are now in stable equilibrium, the second, or that of cohesion, being locally predominant, which results in a bright little pearly sphere, clear as a diamond—and thus, in our morning walks, our eyes are dazzled by Night's jewelled gifts to Nature.—[*Chamber's Journal.*]

### AMBITION.

An ambition which has conscience in it will always be a laborious and faithful engineer, and will build the road, and bridge the chasms between itself and eminent success, by the most diligent, faithful, and minute performance of present duty. Men are to rise upon their performances, not upon their discontent. He who will not do well in his present place, because he longs to go higher, is neither fit to be where he is nor yet above it: he is already too high, and should be put lower.—*Beecher.*

### THREE MISTAKES.

"There are three things which, if Christians do, they will find themselves mistaken:—If they look for that in themselves which can only be found in another—perfect righteousness; if they look for that in the Law which can only be found in the Gospel—mercy; if they look for that on earth which is only to be found in heaven—perfection."—*M. Henry.*

\* It may be mentioned that the three elements which determine the climate of any place, omitting that of aspect, are the coast line, the altitude and the latitude.

### THE WIFE TO HER HUSBAND.

[The following admirable lines by an American lady, a member of the Society of Friends, lately appeared in the *Times*. We are told that the poem was found in the cottage of a tippling gardener of the United States, and that it not only won him from the noisy taproom to his own domestic hearth, but that the judicious distribution of it was the means of much good.]—*English paper.*

You took me, William, when a girl, unto your home  
and hearth,  
To bear in all your after fate a fond and faithful part;  
And tell me, have I ever told that duty to forego,  
Or pined there was no joy for me, when you were  
sunk in woe?  
No; I would rather share your tear than any other's  
glee—  
For though you're nothing to the world, you're all  
the world to me;  
You make a palace of my shed, this rough hewn  
bench a throne;  
There's sunlight for me in your smiles, and music  
in your tone.  
I look upon you when you sleep—my eyes with tears  
grow dim,  
I cry, O, parent of the poor, look down from heaven  
on him;  
Behold him toil from day to day exhausting strength  
and soul;  
O! look with mercy on him, Lord, for thou canst  
make him whole.  
And when at last relieving sleep has on my eyelids  
settled,  
How oft are they forbade to close in slumber by our  
child?  
I take the little murmurer that spoils my span of  
rest,  
And feel it is a part of thee I lull upon my breast.  
There's only one return I crave, I may not need it  
long,  
And it may soothe thee when I'm where the wretched  
feel no wrong;  
I ask for not less frugal fare, if such as I have got  
Suffice to make me fair to thee, for more I murmur  
not;  
But I would ask some share of hours which you on  
clubs bestow.  
Of knowledge which you prize so much, might I not  
something know?  
Subtract from meetings amongst men, each eve, an  
hour for me,  
Make me companion of your soul, as I may safely  
be;  
If you will read, I'll sit and work; then think  
when you're away,  
Less tedious I shall find the time, dear William, of  
your stay.  
A meet companion soon I'll be e'en of your studious  
hours,  
And teachers of those little ones you call our cottage  
flowers  
And if we be not rich and great, may we be wise  
and good!

### THE IMPORTANCE OF LITTLE THINGS.

A young man, about the age of twenty-one, went into the city of Paris, in 1788, in search of a situation. He had nothing to trust to but Providence and a letter of introduction to a celebrated banking establishment. He called on the gentleman at the head of it, in full expectation of finding employment. Monsieur Perregeaux glanced hastily over his letter, and then returned it, saying, "We have nothing for you to do, sir." The young man's hopes died within him.—He almost burst into tears. But there was no help for it. So he bowed and retired in dejected silence. As he passed through the courtyard of the building, he saw a pin lying on the pavement. He picked it up, and stuck it carefully into the sleeve of his coat. The banker saw what took place, and argued from it a habit of economy. He called him back, and offered him a humble situation in the establishment. From that he rose by degrees, till he became the principal partner in the firm, and eventually the chief banker in Paris. Thus Jacques Lafitte, the son of a poor carpenter in Bayonne, under God, owed his fortune to the picking up of a pin.