

## Literature and Science.

### TO THE BLACKBERRY.

FINN thee by the country side,  
With angry mailed thorn,  
When first with dreamy woods and skies  
The summer time is born.

By every fence and woodland path  
Thy milk-white blossom blows;  
In lonely haunts of mist and dream,  
The summer airs enclose.

And when the freighted August days  
Far into autumn lean,  
Sweet, luscious, on the laden branch,  
Thy ripened fruit is seen.

Dark gypsy of the glowing year,  
Child of the sun and rain,  
While dreaming by thy tangled path,  
There comes to me again,

The memory of a happy boy,  
Barefooted, freed from school,  
Who plucked your rich lip-staining fruit  
By road-ways green and cool,

And tossed in glee his ragged cap  
With laughter to the sky;  
Oblivious in the glow of youth,  
How the mad world went by;

Nor cared in realms of summer time,  
By haunts of hough and vine,  
If Nicholas lost the Volga,  
Or Bismark held the Rhine.

Oh time when shade with sun was blent,  
So like an April shower,  
Life has its flower and thorn and fruit,  
But thou wert all its flower.

When every day Nepenthe lent  
To drown its deepest sorrow,  
And evening skies but prophesied  
A glorious skied to-morrow.

O, long gone days of sunlit youth,  
I'd live through years of pain,  
Once more life's fate of thorn and fruit  
To dream your flower again.

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### LETTERS AND NUMBERS.

THE Greeks used the letters of the alphabet for numerals. The cumbersome system used by the Romans, and called after them, consisted of strokes (I - II - III - IIII) to indicate the four fingers, and two strokes joined (V) to represent the hand, or five fingers. Ten was a picture of two hands, or two V's (X). But when the Romans and Greeks worked at the higher mathematics or attempted hard sums in arithmetic, they are much more likely to have used letters, in

order to avoid the clumsiness of these numerals; in other words, they used what looked like a kind of algebra. We know that they tried to simplify the Roman numerals at Rome by making four and nine with three strokes instead of four, by placing an I before the V and an I before the X (IV and IX).

Our use of the numerals which we call "Arabic" is comparatively recent, and it is believed that the Arabs got these numbers from India several centuries after the Koran was written, or about eight hundred years after Christ.

Whether the Indian numerals were originally part of some ancient alphabet, or a series of shortened signs originally somewhat like the Roman numerals that we still use, is not really decided.

The numbers used by the peoples of India who wrote in Sanskrit were very like the figures 1, 2, 3, 4, 5, 6, 7, 8, 9, and 0, that we use to-day. Even closer resemblances will be found if one goes back to the earliest forms of our numerals; for, during the last thousand years, our numbers have undergone some slight changes. Together with these numerals, the Arabs learned from India how to do sums by algebra. For algebra, though an Arabic word, is a science of which the Arabs were ignorant before they reached India.

It may be said that the invention of these numerals and of algebra for the higher mathematics stamps the old Hindoos as one of the most wonderful races of the world.—From "Wonders of the Alphabet," by Henry Eckford, in *St. Nicholas for September*.

### DRYING UP THE ZUYDER ZEE.

THE project of drying up the huge Zuyder Zee is again being urged with some vehemence. A "State Socialist" argument is now freely used; it is said that the gigantic task will find rich employment for the Dutch working class population for many years, among whom social democracy is increasing. The provinces of Utrecht, Gelderland and Groningen, and most of the municipalities whose cities and towns lie upon the sea, have given their adhesion to the scheme, and have empowered a commission of experts to report on the probable cost.

On the other hand, a few of the towns, including Monnikendam and others, protest eagerly against the scheme, since its execution must infallibly convert them into truly "dead cities." If the sea should ultimately be turned into dry land the kingdom of Holland will be enlarged by the addition of a new province twice the size of the province of Utrecht. The new country has been already provided by anticipation with the name of "Willensland."—*Chicago Tribune*.

### NIGHT AIR.

AN extraordinary fallacy is the dread of night air. What air can we breathe at night but night air? The choice is between pure night air from without and foul air from within. Most people prefer the latter—an unaccountable choice. What will they say if it is proved to be true that fully one-half of all the diseases we suffer from are occasioned by people sleeping with their window shut? An open window, most nights in the year, can never hurt anyone. In great cities night air is often the best and purest to be had in twenty-four hours. I could better understand shutting the windows in town during the night, for the sake of the sick. The absence of smoke, the quiet, all tend to make night the best time for airing the patient. One of our highest medical authorities on consumption and climate has told me that the air of London is never so good as after ten o'clock at night. Always air your room, then, from the outside air, if possible. Windows are made to open, doors are made to shut—a truth which seems extremely difficult of comprehension. Every room must be aired from without, every passage from within.—*Sanitary World*.

DANA finds that the average height of the land above sea-level is about 1,000 feet, and that this would probably cover the bottom of the sea to the depth of 375 feet; so that, taking the average depth at 15,000 feet, it would take forty times as much land as exists above sea-level to fill the oceanic depressions. The mean height of Europe has been stated to be 670 feet (Leitpoldt makes it 974 feet); Asia, 1,150; Europe and Asia together, 1,010; North America, 748; South America, 1,132; all America, 930; Africa, probably about 1,600 feet; and Australia, perhaps 500. So far as now known, the extremes of level in the land are 29,000 feet above the level of the ocean, in Mount Everest of the Himalayas, and 1,300 feet below it, at the Dead Sea. Asia has also a great depressed Caspian area; Africa, in the Algerian "chotts," sinks to 100 feet below sea-level; while in America, Death's Valley, California, reaches from 100 to 200 feet lower than the ocean surface.

It is not long since a Frenchman wrote two silly little books about the English, treating them in that lively style which is always sure of popularity. Nearly at the same time, another Frenchman, more careful and more serious, published a volume on the same subject, which, though it contained a few unintentional errors, was on the whole likely to be instructive and useful to his countrymen. The flippant little books had an enormous sale; the instructive book had but a moderate circulation.—*P. G. Hamerton in the Atlantic Monthly*.