

out of the sunshine in which they bask. The colder the climate, of course the greater the need of those living in it. Where nature does little for man, he must do more for himself; yet it is astonishing how slight are the means of subsistence even among the tribes of the extreme north. Artificial wants make the strongest claims on the pockets of all of us. We spend money to gratify our vanity, our taste, or some fancied requirements of our station. Most of us, in fact, live up to a standard fixed not by ourselves, but by our friends. It is not so much what we want, as what they decide for us that we ought to have, that regulates our outlay. Left to ourselves and our own promptings, we should soon find that we could do with very little indeed, and realize for ourselves the supreme wisdom of that saying in the old Book,—“A man's life consisteth not in the abundance of the things which he hath.”

These are obvious truths enough, and yet how many fail to lay them practically to heart. The poor, as a rule, seem bent on making the worst rather than the best of their position. They put themselves in a position of antagonism to it. They chafe, and fret, and rail at Providence. Moreover, in theirullen fits, they quarrel among one another, and so embitter their lot, already distasteful enough. I suppose, where the struggle is hard, the habit of struggling makes those engaged in it pugnacious. They squabble on the slightest provocation. Their conversation is apt to be a recital of wrongs they have sustained, or of petty differences in which they have triumphed. And this sort of thing, I have often felt, is more distasteful than poverty itself. It certainly adds to the burden. Shakespeare, who knew everything, has spoken the wisest philosophy touching this matter, says he: “Poor and content is rich and rich enough.” Contentment is in fact everything. The habit of trying to get the most out of what you have, instead of longing for what you have not, is the great secret of life. That is a very laudable desire which prompts people to better their condition; but it is amazing how it will better itself, if you will only let it. Everybody cannot become a Mark Tapley, who was always looking out for circumstances under which it would be creditable to a man to be jolly, and only found the opportunity of thus shining when down with fever in an American swamp, with Death staring him in the face! But everybody can do a good deal in the way of persistently looking on the sunny side, and picking out the few plums in the hard fare doled out to the poor.

A good deal of ridicule has been thrown on certain people who have preached the doctrine of “sweetness and light.” It is an affected name to give to any doctrine, and it would be hard to gather from it what was really meant; but the root of the idea is that people should sedulously cultivate the sweetness and brightness of life. There are some whose state is so forlorn that they must force the hard, grinding necessities of existence, and always live in contact with what is coarse and revolting. All above these, however, are susceptible of giving their lives a little sweetness, and letting in upon them a glimmer of light. These blessings are derived from two sources—a moral source and an intellectual source. Let me give an illustration of the first. There was a time when the world was in a terrible state of roughness and disorder—when the ordinary means of getting along were brute force and shameless duplicity. Men knocked one another about, and cheated each other, and all was violence, and brutality. Thereupon King Arthur founded his Round Table, and Tennyson has told us what the members of it were to do. Among other things they were—

“To lead sweet lives in purest chastity,  
To speak no slander, no, nor listen to it,  
Not only to keep down the base in man,  
But teach high thought, and amiable words,  
And love of truth, and all that makes a man.”

This influence regenerated the little world of that day, and in the same way a high moral standard and a struggle for refinement—for “high thoughts, and amiable words, and love of truth” will sweeten the humblest house and the lowliest condition. These things are not dependent on means; there is no necessary connection between poverty and baseness. “The first true gentleman that ever breathed,” as Dekker calls the Saviour, was penniless. One of the good effects which I look for as resulting from our modern education is a moral revolution, attended with a softening of manners, which would do so much to ameliorate the fate of the poor. If, in place of storming and wrangling, contention and bitterness, there could be substituted higher motives and gentler conduct, it would be an infinite gain. For morals and manners go together. Improve one and you improve both.

So we should get our sweetness. Now for our light. This must come from an intellectual source, and here again education should be all-potent. It will teach every one to read, and reading is a new sense. To the number of the senses, which are five—seeing, hearing, smelling, tasting and feeling—may fairly be added reading. It is a new means of apprehension, allied to seeing, but not quite it. By its means the mind is enabled to enlarge the range of its powers, and by the aid of books we realize the ambition of the sated voluptuary who offered a reward for a new enjoyment. The capacity to understand the symbols we call letters is like the “Open Sesame” which disclosed the treasures of Aladdin's cave. Only in this case it is a new world which is revealed to us, admission being gained by this mystic key, and that world is all our own. We can escape into it whenever we will; enjoy all its treasures of imagination, feeling, wit, and beauty; and the light of that world, shining on this, brightens and glorifies our lives. A taste for reading, and a habit of storing up what we read for after pleasure, is one way of defeating the ills of life, and strewing the thorny path with flowers.

Art is another means. Familiarity with beautiful objects even in the shop windows is good, and it is wise also to cultivate a strong interest in the events of the day—not in horrors and trifles only, but in those grand questions and historic events which shape the destinies of nations. The wider interests take us out of the clutches of our narrow interests; and just as a few flowers will lighten up, sweeten and glorify the meanest room, so will a persistence in availing ourselves of these resources within the range of the humblest help us to make the best of it.

QUEVEDO REDIVIVUS.

MEN carry their minds as, for the most part, they carry their watches,—content to be ignorant of the constitution and action within, and attentive only to the little exterior circle of things, to which the passions, like indexes, are pointing.—John Foster.

## LIVING GREATNESS.

Lend me thine eyes, Posterity! A cloud  
Gathers between my vision and the men  
Whose voices echo o'er this breathing world.  
Lend me thy sight:—lend me thy placid soul,  
Free of this mean contemporaneous scorn,  
That I may know what mighty spirits walk  
Daily and hourly in my company,  
Or jostle shoulders in the common crowd,  
The thinkers and the workers of the Time.

I'm sick of Apathy, Contempt, and Hate,  
And all the blinding dust which envy stirs,  
To shroud the living lustre from our sight.  
Lend me thine eyes, grateful Posterity!  
Upon the hill-tops I would stand alone,  
Companion of the vastness and keep watch  
Upon the giants passing to and fro,  
Small to the dwellers in the vales beneath,  
But great to me. Oh, just Posterity,  
I strive to penetrate thy thought; to soar  
Beyond the narrow precincts of To-day,  
And judge what men now wanting crusts of bread  
Shall in Thy book stand foremost, honour crown'd;  
What scorn'd and persecuted wretchedness  
Shall shine, the jewel on a nation's brow;  
And what unfriended genius, jeer'd, impugn'd,  
Shall fill the largest niche of Pantheons.

I would behold, daily, for my delight,  
The clear side of the greatness, the full size,  
Shape, glory, majesty, of living men.  
Why should our envy dim the orbs of heaven?  
Why should our malice dwarf the giant's height?  
Our scorn make black the white robes of the sage?  
Lend me thy sight—I will see marvels yet,  
Gold in the dust, and jewels in the mire!

## SCIENTIFIC.

A NEW APPLICATION OF PHOTOGRAPHY.—A discovery (reports the *Observer*) is alleged to have been made by Mr. Gresham, a practical mechanic, of New York, of a method by which a ship may be photographed on the high seas, distant from 100 to 5,000 miles—the photograph giving the name, the latitude and longitude, and the destination, taken from chalk-marks on her deck. Mr. Gresham, after a long series of experiments, has found that he can produce an artificial mirage, the principle of which, he says, is the same as that which reflects in the middle of the desert of Sahara the images of lakes and waters 1,000 miles distant. This artificial mirage can, so far as has yet been ascertained, be only produced by petroleum and asphaltum. All that is necessary is the possession on board a vessel of a few pounds of asphaltum, with a censer to burn it in, and a small battery to heat the wires by which it should be surrounded. By a machine invented by Mr. Gresham, the artificial mirage is reproduced on tin. The instrument used for photographing the objects seen in the mirage is called by the inventor the “phantasmograph,” and is at present in a very crude form. He anticipates, however, that it will before long be brought to perfection, and that the marine insurance companies, when they realise its value, will “only be too glad to insist that all vessels shall carry the necessary apparatus.” They will thus be cognisant of the whereabouts of the vessels upon which they have sold their risks. At four o'clock precisely, on a clear afternoon, clouds of carboniferous smoke shall, Mr. Gresham proposes, be sent up from ships at sea, the required information as to names, and so forth, being previously marked in chalk in large letters on their respective decks. Then the photographic instruments are set. One vessel photographs the artificial mirage of another at a distance of perhaps more than 4,000 miles, and on arrival at port the intelligence thus obtained is conveyed to those interested in the matter.

NOVEL APPLICATION OF THE ELECTRIC LIGHT.—The electric light has already been put to various uses, but the most novel is that contemplated by the Rev. Canon Bagot, rector of Athy, and a well-known agriculturist. The Canon announced his intention of doing his harvesting this year by the aid of the electric light, but we have not heard whether his experiment has been successfully accomplished.

ARTIFICIAL DIAMONDS.—In November, 1828, the late Dr. Gannal presented a paper to the Academy of Sciences relative to the artificial production of the diamond. It was referred to MM. Vauquelin and Chevreul, and nothing more was ever heard of it. The sons of the deceased doctor, in examining his papers, found a draft of the document which they have now sent to the Academy. In making some experiments with the carburet of sulphur the idea occurred to the doctor that the carbon might be separated from the combination in the state of crystals. To that effect he took a certain quantity of the carburet, poured on the top a little water, which floated, and then gently introduced some stick phosphorus. The latter dissolved immediately, and three separate layers were formed, the phosphorus at the bottom, the carburet of sulphur next, and the water at the top. After a time he observed that a sort of film was formed between the two latter, and that when it was exposed to sunlight it had all the iridescence of the rainbow. After the experiment had been in progress for three months a sudden fall in the temperature occurred, the water froze, the glass was split, and the contents lost. He recommenced his trials, but as each were liable continually interfering with their final success, he at last abandoned his efforts. However, in the course of his operations he had been able to pro-