

### The Time for Sleep and Study.

By all means, sleep enough, and give all in your care sleep enough, by requiring them to go to bed at some regular hour, and to get up at the moment of spontaneous waking in the morning. Never waked up any one, especially children, from a sound sleep; unless there is urgent necessity; it is cruel to do so. To prove this, we have only to notice how fretful and unhappy a child is when waked up before its nap is out. If the brain is nourished during sleep, it must have most vigor in the morning; hence the morning is the best time for study—for then the brain has most strength, most activity, and must work more clearly. It is "the midnight lamp" which floods the world with sickly sentimentalities, with false morals, with rickety theology, and with all those harum-scarum dreams of human elevation which abnegate Bible teachings.—*Hall's Journal of Health.*

### Early Breakfast.

Breakfast should be eaten in the morning, before leaving the house for exercise or labor of any description. If early breakfast were taken in regions where chill and fever, and fever and ague prevail, and if in addition a brisk fire were kindled in the family room for the hours including sunset and sunrise, those troublesome maladies would diminish in any one year, not tenfold, but a thousand-fold, because the heat of the fire would rarify the miasmatic air instantly, and send it above the breathing point. But it is troublesome to be building fires night and morning all summer, and not one in a thousand who reads this will put the suggestion into practice, it being so "troublesome," requiring an effort to shiver by the hour, daily, for weeks and months together; such is the stupidity of animal man!—*ib.*

### The Poetry of the Steam Engine.

There is something awfully grand in the contemplation of a vast steam engine. Stand amid its ponderous beams and bars, wheels and cylinders, and watch their unceasing play; how regular and how powerful! The machinery of a lady's Geneva watch is not more nicely adjusted—the rush of the avalanche is not more awful in its strength. Old Gothic cathedrals are solemn places, preaching solemn things; but to the deep thinker an engine-room may preach a more solemn lesson still. It will tell him of mind—mind wielding matter at its will—mind triumphing over physical difficulties—man asserting his great supremacy—"intellect battling with the element." And how exquisitely complete is every detail!—how subordinate every part toward the one great end!—how every little bar and screw fit and work together! Vast as is the machine, let a bolt be put the tenth part of an inch too long or too short, and the whole fabric is disorganised. It is one complete piece of harmony—an iron essay upon unity of design and execution. There is deep poetry in the steam engine—more of the poetry of motion than in the bound of an antelope—more of the poetry of power than in the dash of a cataract. And ought it not to be a lesson to those who laugh at novelties, and put no faith in inventions, to consider that the complex fabric, this triumph of art and science, was once

the laughing-stock of jeering thousands, and once only the waking phantasy of a boy's mind as he sat, and, in seeming idleness, watched a little column rise from the spout of a tea-kettle?

### Nothing New under the Sun.

Great inventions do not spring into existence in a state of perfection, and hence there is some pertinence in the words of Solomon, "There is no new thing under the sun," in their frequent application by those disposed to detract from the merits of the ingenious men who have invented or perfected the most important elements of our modern civilization.

The beginning of most inventions is very remote. The first idea borne within some unknown brain passes thence into others, and at last comes forth complete, after a parturition, it may be, of centuries. One starts the idea, another develops it, and so on progressively, until at last it is elaborated and worked out in practice. It is not possible to measure the share of each in the merit of the invention, and apportion it duly; but mankind is most indebted to him who gives it vitality and practical utility. Sometimes a great original mind strikes upon some new vein of hidden power, and gives a powerful impulse to the inventive faculties of man, which lasts through generations. More frequently, however, inventions are not entirely new, but based upon contrivances previously known. Glancing back over the history of the useful arts, we occasionally see an invention seemingly full-born, when suddenly it drops out of sight and we hear no more of it for centuries. It is taken up anew by some inventor, stimulated by the needs of his time, and falling again upon the track, he recovers the old foot-marks, follows them up, and completes the work.

The history of the steam engine is now to a certain extent familiar to most reading men; and the progress of its invention can be traced at intervals through a period of over 2,000 years. An old German book, printed in the year 1577, speaks of the reaping machine as a worn-out invention which was wont to be used in France, and the description therein contained shows it to have been, at least, somewhat like the modern machines for the same purpose. Breech-loading cannon and fire-arms, made at least three hundred years ago, and revolvers two hundred years old, are now in existence. Anesthetics were used by the ancient Egyptians. Something like the daguerreotype, printed by the light of the sun, was known to Leonardo da Vinci four hundred years ago. The idea of propelling vessels by steam seems to have been experimented upon by Blasco de Garay as early as the year 1543. The conception of the electric telegraph dates back over two hundred years. The use of coal gas for lighting purposes was known to the Chinese many years before it was known in Europe or America. And something like the modern postage stamp is said to have been used in Paris in the year 1653. Yet, in view of these facts, no candid mind will refuse to acknowledge Watt as the inventor of the condensing steam engine and the most important feature of the high-pressure engine as we now know and use them, or grudge the honor due, and, by common consent, accorded to Fulton, McCormick, Colt, Daguerre, Morse, Murdock, and