

they abound in all those conveniences, comforts, and satisfactions, which money will buy; and, other things being equal, the increase of competency and the decline of pauperism will be measurable on this scale."

## XI. Papers on Physiology and Health.

### I. HEALTH AND WHAT PROMOTES IT?

Dr. Frank H. Hamilton, in an address on hygiene, to the graduates of the Buffalo Medical College, discusses the subject of health and the causes which promote or injure it. We make the following extracts:—

#### STOVES AND FURNACES.

Within a few years the air-tight stove has been substituted for the iron dogs, and for the first time since men began to live in houses we have no "fire-places." The shrine of the Lares has been removed, and our houses have been literally pillaged—robbed of the domestic hearth, toward which so many associations have always centered, for which the blood of nations has been regarded as the symbol of home with all its social comforts.

Not content with this, these enemies to our race have still more lately taken away the stoves which, destitute of the essence, still occupied the places, and served to remind us, at least, of the ancient fire-places; and instead, they have built for us iron furnaces—Ætnas—under ground, so that now what of the oxygen we are not able to consume and convert into carbonic acid, is vitiated by impure gas escaping from its hidden chambers, by invisible particles of coal dust, and by other impurities which clog up the air-cells, and close the avenues of life, or stick along the parched fauces as if reluctant to convey their poisons to the lungs.

Stoves have no doubt abridged the sum of human life, but by these subterranean iron furnaces we are truncated—cut short in the middle. It is an error to suppose that hot-air furnaces can ever be so constructed or managed, at least in private houses, as not in any degree to prove detrimental to health. We wish we could persuade ourselves that this is not so, for it is certainly very agreeable in a climate like ours, to enjoy throughout all the rooms and passages of the house warm and uniform temperature; but it is just this even warmth which is one of the sources of mischief. The inmates are so little accustomed to the cold within doors, and become so morbidly sensitive, that they shudder at the idea of going out, and if they ever do venture into the air, the frost enters into their open pores, and they hasten back to their shelter, chilled, exhausted and discouraged. They are no better able to endure the storms of winter than a plant reared in a hot-house. It was the venerable Bede, I think, who said, "When men lived in houses of willow, they were of oak; but when they lived in houses of oak, they were of willow."

#### WHAT IS NEEDED.

We need for our dwellings more ventilation and less heat; we need more out-door exercise, more sunlight, more manly, athletic and rude sports; we need more amusements, more holidays, more frolic and noisy, boisterous mirth. Our infants need better nourishment than colorless mothers can ever furnish, purer milk than distilleries can manufacture; our children need more romping and less study. Our old men more quiet and earlier relaxation from the labors of life. All men, both young and old, need less medicine and more good counsel. Our cities need cleansing, paving and draining. The Asiatic cholera, the yellow fever, the plague and many other fearful epidemics are called the opprobria of our art, and our fellow-citizens upbraid us with the feebleness and inefficiency of our resources in staying their fatal progress. When will they learn that although we do not fail to cure these maladies, the more precious secret of prevention is in our possession, and has been for these many years?

### 2. PHYSIOLOGICAL FACT IN REGARD TO VOCAL MUSIC IN SCHOOLS.

I here introduce a fact which has been suggested to me by my profession, and that is, that the exercise of the organs of the breast, by singing, contributes very much to defend them from those diseases to which the climate and other causes expose them. The Germans are seldom afflicted with consumption, nor have I ever known but one instance of spitting blood among them. This, I believe, is in part occasioned by the strength which their lungs acquire by exercising them frequently in vocal music, for this constitutes an essential branch of their education.—*Dr. Rush.*

### 3. FACTS IN PHYSIOLOGY.

A man is taller in the morning than at night to the extent of half an inch, owing to the relaxation of the cartilages. The human brain

is the twenty-eighth of the body, but in the horse but a four-hundredth. Ten days per annum is the average sickness of human life. About the age of 36, the lean man generally becomes fatter, and the fat man leaner. Richter enumerates 600 distinct species of disease in the eye. The pulse of children is 180 in a minute; at puberty it is 80; and at 60, only 60. Dr. Lettomb ascribes health and wealth to water; happiness to small beer; and all diseases and crimes to the use of spirits. Elephants live for two hundred, three hundred, and even four hundred years. A healthy full-grown elephant consumes thirty pounds of grain per day. Bats in India are called flying foxes, and measure six feet from tip to tip. Sheep in wild pastures, practice self-defence by an array in which rams stand foremost, in concert with ewes and lambs, in the centre of a hollow square. Three Hudson's Bay dogs draw a sledge, loaded with 300 pounds, fifteen miles per day. One pair of pigs will increase in six years to 119, 160, taking the increase at fourteen per annum. A pair of sheep, in the same time, would be but 64. A single female horse produces in one season 20,080,320 eggs. The flea, grasshopper and locust jump 200 times their own length, equal to a quarter of a mile for a man.

## XII. Miscellaneous.

### 1. WINTER SCENES.

The London *Athenæum* thinks the imagery of the following poem, by a new writer, Mr. S. H. Bradbury, is rarely excelled:

The leaves have fallen from the trees,  
The alder trembles at the door:  
And like the surge of angry seas,  
The mad storm moans across the moor!  
The frosts are penciling the panes,  
With many a quaint and rare device;  
Above the leafless village lanes,  
Are seen unbroken spots of ice!

The rime upon the hedge-row seems  
More purely white than ermine robes;  
The solemn sun but weakly beams,—  
Hangs in the sky like blood-red globe.  
The poor birds flit from spray to spray,  
A dense mist hangs upon the world;  
And in the daylight waxes gray,  
Like smoke from heavy ordnance rolled!

Deep silence reigns in every vale,  
No streamlet tinkles as it flows;  
Save when struck by the northern gale;  
That harps in thunder as it blows!  
The ivy round the cottage door,  
Looks perished in the dim cold light:  
And round our homes the mad winds roar,  
And strike with all their groaning might.

The holly's muffled with the snow,  
Thro' which the rubied berries peep  
Like drops of coral, while below  
The river's bound in icy sleep!  
We list the north with thunder-tone  
Rock giant trees from root to crown;  
While massive clouds look sad and lone,  
And with a sudden grandeur frown!

The snow flakes fall in reeling showers,  
In many wild and grotesque forms;  
And soon the hills appear like towers,—  
The bulwarks of the rolling storms!  
And day, storm-vanquished, coldly dies,  
When night in savage glory reigns;  
With snow-bound earth and unstarred skies,  
Amid the howl of hurricanes!

### 2. THE HEIR APPARENT TO THE CROWN OF ENGLAND

On Wednesday the ninth of November, His Royal Highness the Prince of Wales attained his eighteenth year, and in event of a demise of the Crown, would rule in his own right as Albert the First. The Prince's natal day occurs on the 9th of November, the day when all the Corporations in this kingdom elect their Mayors, and both events are accompanied by the merry ringing of bells, and