

earth, but only that it is possibly an approximation to the period which has elapsed since the old red Sandstone—a period perhaps ten times as great as may have passed during the cooling and consolidation of the crust on which these subsequent stratifications have been deposited. I submit this only as a possible explanation of these repeated phenomena of glacial and tropical epochs. The continuous duration of each epoch, throughout the periods here assigned to them, is unlikely, and it is more probable that periods of temperate climate were frequently interposed. The extremes would likely be greatly modified locally by such phenomena as that of the precession of the equinoxes.

H. B. F.

Domestic Hints.

HEALTH AND HOME.

HOW TO SIT.—*Hall's Journal* persists in robbing us of our comfort in this style: All consumptive people and all afflicted with spinal deformities sit habitually crooked, in one or more curves of the body. There was a time in all these when the body had its natural erectness, when there was the first departure on the road to death. The make of our chairs, especially that great barbarism, the unwieldy and disease-engendering rocking-chair, favors these diseases, and undoubtedly, in some instances, leads to bodily habits which originate the ailments just named, to say nothing of piles, fistula and the like. The painful or sore feeling which many are troubled with incessantly for years, at the extremity of the backbone, is the result of sitting in such a position that it rests upon the seat of the chair, at a point several inches forward of the chair back. A physiological chair, one which shall promote the health and preserve the human form erect and manly, as our Maker made it, should have the back straight, at right angles with the seat, the seat itself not being over eight inches deep. A chair of this kind will do more towards correcting the lounging habits of our youth than multitudes of parental lecturings, for then if they are seated at all they must sit erect, otherwise there is no seat-hold.

IMPORTANCE OF A CLEAN SKIN.—Most of our invalids are such, and millions of more healthy people will become invalids, for the want of paying the most ordinary attention to the requirements of the skin. That membrane is too often regarded as a covering only, instead of a complicated piece of machinery, scarcely second in its texture and sensitiveness to the ear or the eye. Many treat it with as little reference to its proper functions as if it were nothing better than a bag for their bones. It is this inconsideration for the skin that is the cause of a very large proportion of the diseases in the world. If, as claimed by some scientists, four-fifths, in bulk, of all we eat and drink must either pass off through the skin or be turned back upon the system as a poison, and that life depends as much upon these exhalations through the skin as upon inhaling pure air through the lungs, it must be of the most vital importance to keep that channel free.

HEALTH AND TALENT.—It is no exaggeration to say that health is a large ingredient in what the world calls talent. A man without it may be a giant in intellect, but his deeds will be the deeds of a dwarf. On the contrary, let him have a quick circulation, a good digestion, the bulk, the sinews and sinews of a man, and he will set failure at defiance. A man has good reason to think himself well off in the lottery of life if he draws the prize of a healthy stomach without a mind, rather than the prize of fine intellect with a crazy stomach. But of the two, a weak mind in a herculean frame is better than a giant mind with a crazy constitution. A lean pound of energy with an ounce of talent will achieve greater results than a pound of talent with an ounce of energy.—*Home Journal*.

ADVANTAGES OF A GOOD TEMPER.—An equable temper is greatly to be admired. The man who always has himself well in hand, who is cool under all annoyances and circumstances, who has absolute control of his temper, we are always willing to trust in any emergency. But a person who flashes like powder touched by a lighted match, who loses control of himself upon the slightest provocation, we distrust, and have a right to do so. In the battle of life, he who would achieve victories must keep a cool head. And this matter is largely under our control.

A BEAUTIFUL COMPLIMENT TO THE PHYSICIAN.—I dare not place any gift, however beautiful, or any success, however brilliant, above the talent or the skill which can relieve a single pang, and the self-devotion which lays them at the feet of the humblest fellow creature.—*Oliver Wendell Holmes*.

CHEERFULNESS AT MEALS.—The benefit derived from food taken, depends very much upon the condition of the body while eating. If taken in a moody, cross, or despairing condition of mind, digestion is slower and much less perfect than when taken with a cheerful disposition. The very rapid and silent eating too common among Americans, should be avoided, and some topic of interest introduced at meals, in which all may participate; and if a hearty laugh is occasionally indulged in, it will be all the better.

THE PHILOSOPHY OF HOT BREAD.—A correspondent sends the *Journal of Chemistry* the following query: "Physicians often recommend for sick people oatmeal or graham pudding, made by stirring the meal into water and boiling a few minutes, as one of the first things to be eaten when the stomach will not bear hearty food. Why is the meal thus prepared any more easily digested than new bread or hot muffins, which are considered unhealthy? Is not the same chemical change necessary in the one as the other, which can only take place by standing for several hours after cooking?"

The two cases are by no means similar. The oatmeal or graham flour is made digestible by boiling, the starch granules being ruptured, so that their contents are more easily acted upon by the digestive fluids. In the making and baking of bread the same change is accomplished. The difference between hot new bread and that which is older is essentially the same as between "heavy" and "light" bread. It is its "lightness" or porosity which gives to bread its ready digestibility. When new, it is softer, from the steam of the water it contains; and this makes it difficult of mastication and liable to form a close and cloggy mass, which on passing into the stomach, is less easily penetrated and acted upon by the gastric juice. By cooling and drying it becomes firmer and more friable so that it is more thoroughly mixed with the saliva in the mouth, and goes into the stomach in better condition for the process to which it is to be subjected there.

If the bread is hot enough to melt the butter eaten with it, this makes the matter worse. The melted grease fills up the pores of the bread, and interferes with the action of the saliva and gastric juice. The fatty matters in pastry are objectionable for the same reason, and also on account of the chemical changes which they undergo in the oven.

Bread becomes more digestible by toasting, chiefly because it is made drier and firmer—that is, if the toasting is properly done. The slice should be rendered crisp throughout its entire thickness. If it be merely scorched on the surface, as often happens when the slices are thick and Bidley is stupid or in a hurry, the interior is merely softened and made like new bread, and consequently less digestible.

What English people call "bread jelly" is a light and nourishing article for weak stomachs, in some cases preferable to the oatmeal or wheat porridge. It is made by steeping stale bread in boiling water, and passing it through a fine sieve while still hot. It may be eaten alone, or after being mixed and boiled with milk.

HOW TO EAT OATMEAL.—Oatmeal, cracked wheat, and similar boiled breakfast dishes often become more or less indigestible, says the *Journal of Chemistry*, from being "bolted" in the usual Yankee style. They are soft and "go down" easily, and are shoveled or spooned into the stomach, with no delay in the mouth *en route*. They need mastication as really as beefsteak does—not to save one from choking (which many people seem to suppose is the sole reason for chewing), but to mix them thoroughly with saliva, which is a digestive agent and not a mere lubricant to expedite the passage of dry food down the œsophagus. A friend of ours was lately complaining that oatmeal did not agree with him, and we found on inquiry that he was in the habit of eating it in this hurried way, without insalivation. He was much surprised when told that he ought to "chew" it, or at least to detain it for a moment in the mouth before swallowing it; but after a brief trial he admitted that he had no more trouble in digesting it. If the oatmeal or wheat is not thoroughly cooked it is all the more important that it should be masticated, as the half-softened grains offer considerable resistance to the digestive fluids.

BEAN SOUP.—A friend recommends this as the best: Soak the beans over night. Boil three hours, or until very soft. Strain them through a colander and, after placing the soup again over the fire (to heat, but not to boil more than a minute), season for one pint of beans as follows: One teaspoonful each of sugar and salt, half teaspoonful pepper, teacupful of milk, one tablespoonful of butter, and one beaten egg.