

RESPONSES TO READERS.

All communications for answer in this column should be addressed Correspondents' Department, Family Circle Office, London East.

INQUIRER.—You will find an excellent remedy for the cure of your children's toothache, is powdered alum, saturated with sweet spirits of nitro. This mixture put in the cavity, if there is one, or rubbed on the gum, if there is not, gives immediate relief.

A READER.—Cloth may be made waterproof by applying a strong solution of soap to the wrong side of the cloth, and, when dry, washing the other side with a solution of alum.

INDIGNANT.—The proper course is certainly to overlook the offense, though we are aware that few are able not to desire revenge under such circumstances. To treat the matter in silent contempt, or to return the letter without comment would, we think, hurt the person's feelings more than any other course.

H. D.—We could not publish articles of the nature referred to in the FAMILY CIRCLE.

L. L.—The case is not sufficiently explained for us to give any opinion upon it. It would probably be safer for you to consult a lawyer.

L. D.—There is at present no such paper published. It was amalgamated with the *Toronto Citizen* some time since.

LIV. H.—It would be much wiser for you to show or express no signs of your disappointment, and associate as much as possible with lively company to enable you to forget the conduct of one whom you should bring yourself to understand was unworthy of your regard.

Answers crowded out of this number will appear next week.

HEALTH AND DISEASE.

Mens sana in corpore sano.

Regulating Diet.

When a piece of land is exhausted of the element which is the principal ingredient of a certain crop, that ingredient must be supplied, or the crop will fail in quantity and quality; hence the thrifty farmer ascertains the wants of the soil and supplies it with the needed fertilizer each year.

The human body is exhausted of its elements day by day and day by day must these elements be supplied by what we eat and drink. But the required proportion of these elements changes with the seasons, with the temperature of the weather; and he who eats the same in quantity or quality in July as at Christmas, does himself an injury. All food contains two chief principles: Carbon, to keep from freezing; nitrogen, to keep from famishing. The proportion of these elements varies with the food. Those who work a great deal require a great deal of nourishment, of nitrogen, for it is the flesh-forming principle. Those who are exposed a great deal to the cold should eat the carbonaceous, the heat-supplying foods. Butter and fat are three-fourths carbon; vegetables have but little, berries none. Hence, Greenlanders, in their icy homes, luxuriate in blubber and whale oil, while the people of the South revel in oranges and bananas, on the plantain and the peach, on dates and figs, on lemons, tamarinds, pine-apples, on alligator pears, bread fruit, and the luscious mango and cherimoyer.

We who live in latitudes between are permitted the diet of the Polar Sea and the tropics in their season.

A wise man will take but little carbonaceous food on a suddenly hot day; but if suddenly cold, it is best for him to eat more of fuel-making food. An infinite number of fevers and of colds would be avoided if timely attention were paid to these things. There is not one per cent. of nitrogen,

of flesh-forming principle in fruits, berries, and the more common vegetables. Meats have about fifteen per cent. The meats average twenty-five per cent. of nutriment, that is including both carbon and nitrogen. Of all meats mutton is the most nutritious—thirty per cent.; fish, least, twenty per cent. Of all vegetables, white beans are the most nutritious, ninety per cent.; turnips, the least, five per cent.; apples, seventeen; melons and cucumbers, three; the rest being mere water and waste. The more waste the more open the bowels are.

Use of Lemons.

For all people, in sickness or in health, lemonade is a safe drink. It corrects biliousness; it is a specific against worms and skin complaints. The pippins, crushed, may also be mixed with water and sugar, and used as a drink. Lemon juice is the best anti-scorbutic remedy known; it not only cures the disease, but prevents it. Sailors make a daily use of it for this purpose. A physician suggests rubbing the gums daily with lemon juice to keep them in health. The hands and nails are also kept clean, white, soft and supple by daily use of lemons instead of soap. It also prevents chilblains. Lemon used in intermittent fever is mixed with strong, hot black tea or coffee, without sugar. Neuralgia may be cured by rubbing the part affected with lemon. It is valuable, also, to cure warts and to destroy dandruff on the head, by rubbing the roots of the hair with it. In fact, its uses are manifold, and the more we apply it externally, the better we shall find ourselves.

Relation of Clothing to Bodily Heat.

The thinnest veil is a vestment in the sense that it moderates the loss of heat which radiation causes the naked body to experience. In the same way, a cloudy sky protects the earth against too great cooling in spring nights. In covering ourselves with multiple envelopes of which we augment the protecting thickness according to the rigor of the seasons, we retard the radiation from the body by causing it to pass through a series of stages, or by providing relays. The linen, the ordinary dress, and the cloak constitute for us so many constitutional epidermises. The heat that leaves the skin goes to warm these superposed envelopes; it passes through them the more slowly in proportion as they are poorer conductors; reaching the surface it escapes, but without making us feel the chills which direct contact with the atmosphere occasions, for our clothes catch the cold for us. The hairs and the feathers of animals perform the same function toward their skin, serving to remove the seat of carolific exchange away from the body. The protection we owe to our clothes is made more effectual by their always being wadded with a stratum of warm air. Each one of us has his own atmosphere, which goes with him everywhere, and is renewed without being cooled. The animal also finds under his fur an additional protection in the bed of air that fills the spaces between the hairs; and it is on account of the air they inclose that porous substances, furs and feathers keep warm.

Experiments to determine the degree of facility with which different substances used for clothing allow heat to escape were made by Count Rumford, Senedier, Boeckmann, James Starck, and M. Coulier. The results were not in all cases consistent with each other, but they indicate that the property is dependent on the texture of the substance rather than on the kind of material, or—as concerns non-luminous heat—its color.