blood; and the blood, which acts as "common carrier" in the body, transports these nutritive materials to the various tissues, each of which selects the kind and quantity which it needs to renew its vigor. Of course, the quantity which it needs depends upon the amount of work it has performed; and in such harmony has our Creator fashioned us, that the appetite, or desire for food, is directly governed by the needs of the body. Now, we have the key to the solution of our question. Physical exercise calls into action the bones and muscles of the limbs and trunk; it increases thereby the flow of blood to these parts, that they may be sustained, and thus sets the heart, or force-pump of the body, into more vigorous play; the breathing of the lungs becomes more rapid and full, that the increased amount of waste-products may be cast out of the blood, and more oxygen received into it; and the work of the brain and nerves, by which all these operations are directed, is increased. So we may say that exercise brings the whole body into brisk action, that consequently the wasting of the tissues becomes more rapid, more food is needed to repair this waste, and thus the appetite is increased.

3. *What kind of food is best for summer use?* The two chief purposes for which we eat, are to repair the waste and to keep up the animal heat. The tissues and organs of the body are chiefly made up of four elements—oxygen, hydrogen, carbon and nitrogen; hence those foods which contain all these are best for repairing the waste. It has been already explained in the "Science Lesson" above mentioned, that those foods which contain a large proportion of carbon and hydrogen produce the most animal heat; hence these are good for winter use, but should be used very sparingly in summer. Foods are divided into classes, according to the proportion or arrangement of the four elements spoken of.

1. *Nitrogenous* foods contain all four elements, nitrogen being the most important. They are also called *albuminoids*, because they contain albumen, a sticky substance nearly pure in the white of eggs. Albumen is the chief constituent of muscular and some other animal tissues, and is stored up in many of the seeds of plants. Lean meat, eggs, milk, peas, beans and bread-stuffs are *nitrogenous*, and are excellent food at all seasons. 2. *Sugars* and *starches* contain oxygen, hydrogen and carbon, with a large proportion of the first. Fruits, potatoes and other vegetables, molasses and rice belong to this class. Milk contains sugar; and bread-stuffs have an abundance of starch. Foods of this class are especially good for summer use. 3. *Fats* and *oils* contain oxygen, carbon and hydrogen, with comparatively little of the first. The fat of meats, butter and olive oil are examples of this class. The first, especially, because of its heating qualities, should be avoided in summer.

4. *In what way does tight dressing affect the healthy action of the system, as to digestion, circulation, respiration and heat?* We may take it as an oxiom that the action of any organ, to be "healthy," must be free and unfettered. Tight clothing about the chest or waist (1) prevents the full expansion of the lungs, so that they do not take in the requisite amount of fresh air, and in consequence less of life-giving and heat-producing oxygen is received into the blood, and less of carbonic acid and other hurtful substance is expelled from it; (2) it compresses the digestive organs into too small a space to allow the freedom of motion necessary to do their work properly. Garters interfere with the circulation in the limbs, and are perhaps more injurious to the muscles which they bind. Tight shoes make cold feet, because they impede the circulation of the blood; and loose-fitting garments of all kinds are warmer than tight-fitting ones, because they admit a layer of air, kept warm by the body, between its surface and the garments.

Lyles, Pa. WALTER S. WAY.

The Sultan of Morocco prohibits the use of Tobacco, opium and alcohol.

Dom Pedro, the Emperor of Brazil, who is an enthusiastic amateur astronomer, has been elected an associate member of the Liverpool Astronomical Society.