

some other motion, rotary it may be, to the molecules. This is termed—

5th. Energy of absorbed heat. It is the same as that usually called latent heat.

These last two forms of energy are more intimately connected with the world of molecules, but, as we mentioned before, these molecules are made up of atoms. The atoms have an attraction for each other—the atoms of hydrogen unite with the atoms of oxygen to form molecules of water, but in so doing resistance has to be overcome, therefore these atoms existing apart and at rest possess an energy that is called—

6th. Energy of atomic or chemical separation. This is the energy that makes our wood and beds of coal of value, for the atoms of carbon in the coal unite with the atoms of oxygen in the air with such force that heat results.

We have reserved for the last that wonderful and mysterious agent, electricity which is of late being so widely used, and is being developed into such a powerful assistant to mankind. Electricity is of two kinds, positive and negative, as they are called, which are of such a nature that a body positively electrified is attracted towards a body negatively electrified, and hence, on account of this attraction, energy is manifested which is called—

7th. Energy of electrical separation. This is a form of energy of position. If a piece of glass be rubbed with a piece of silk, the glass will become positively electrified, and the silk negatively, and we will have here a store of energy of electrical separation.

Electricity, however, displays its power in another form, viz., in the electric current, or in electricity in motion, which is our eighth and last form of energy.

We have already, to some degree, shewn how these different forms of energy are interchanged, how one form of energy gives rise to another. The principle source of the energy of this earth is from the sun being, for the most part, made up of radiant energy—the energy of heat and light. Let us again