

THE  
**YOUTH'S INSTRUCTOR.**

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**CHEMICAL ESSAYS.**

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CALORIC CONTINUED—ELECTRICITY.

**W**E have before observed, that caloric has the power of expanding all bodies. This expansion varies exceedingly in the various substances upon which it acts. Different metals expand in different degrees. To shew these variations, instruments called pyrometers have been invented. Upon this principle, thermometers have been formed: they are tubes with a bulb at the bottom; the air is excluded from them, and some liquid (generally spirits of wine or mercury) is introduced into the bulb, which by its expansion or contraction, measured by a scale affixed to the tube, shews the temperature of the bodies with which it is brought into contact.

The most important powers then of free caloric, to which we have alluded, are its tendency to an equilibrium, its power of radiation, of expansion, and of conducting. We will now pass on to examine our second modification of caloric; namely *specific or combined caloric*. The study of this part of heat we may subdivide into two branches: first,