

the decimal system, and, now that intercommunication has become so rapid, intercourse and exchanges so frequent, that the civilized world is like one family, we ought to abolish all needless divergencies as soon as possible.

### Origin of the

### Metric System

This idea took strong hold of the French people at the end of the last century, when they were changing many other things besides weights and measures, and in 1790 the celebrated Talleyrand carried a resolution in their Assembly which looked to the adoption of a scientific standard by all nations, with a view to the introduction of a uniform coinage, and of international weights and measures. It read: "That a commission be formed, charged with the duty of ascertaining the length of the pendulum beating seconds in latitude  $45^{\circ}$ ." England, though invited, refused to join the commission, so the French and dependent nations proceeded alone. They soon threw over the pendulum standard, for the commission advised taking in its stead a fraction of the earth's meridian. This involved the determination of the length of the degree, a subject which has an interesting history.

### Measuring

### this Earth

It begins with Eratosthenes (250 years B.C.), who observed that at Syene, in Egypt, at the summer solstice, there was no shadow at mid-day at the bottom of the wells, whereas at Alexandria, at that time, a rod set vertically did throw a shadow, which he measured. His calculations showing that between these two places there was one-fiftieth of the