

science, it is known of some at least that these are but the re-discoveries of arts which perished with the records of a former people.

It has been already suggested that science in some of its forms enters very largely into our most ordinary pursuits. As an illustration of the complexity of the subject, and the mutual interdependence of one science upon another, let us glance for a moment at even so apparently simple a thing as the making of our daily bread. Here we should probably, first of all, obtain a knowledge of the conditions of climate which are most favorable to the growth of cereals; and this opens to us at once the great domain of the sciences of climatology and meteorology. The conditions of soil, again, also a question of great importance, brings us to the study of chemistry, physics and geology, while the sowing, harvesting and grinding of our grain introduces us into the wonderful field of applied mechanics, the skill of whose students is so largely devoted to the invention and perfecting of the best and most labor-saving appliances by which these operations can be most satisfactorily effected.

In the second stage of the industry, chemistry again comes into play in the laboratory of our kitchens and in the production of the best materials for producing the finest varieties of bread from the prepared grain, and in this connection also several sister sciences are invoked in the invention and building of our ranges and other appliances for the cooking of the materials after they are ready for that process. If we follow up our illustration to its legitimate conclusion we shall have to go back still farther and bring in the aid of several other important assistants. Thus we must have the science of geology to determine the presence of the coal-beds from which we derive the necessary fuel to supply our ranges. Then we have the sciences of palæontology and palæo-botany to determine the age of the coal plants which accompany these coal beds, and the science of mining engineering, by which the coal, and even the iron ores from which our implements and ranges are manufactured, can be extracted and brought into useful shape, in which process, also, we have the aid of the sister science of metallurgy, and so we might pursue our illustration almost indefinitely and show that in every department of our life's work there is an exceedingly close relationship everywhere existing between the various branches of scientific knowledge.