

so many circumstances of fluctuating yield, of mines and crops, of international war, and civil war between employers and workmen, that the conditions of every one of the elements in commercial geography undergoes important geographical change in very short periods of time; so that averages, as evidenced by records over an extended period, become indispensable when geographical knowledge is utilized in the practical business of commerce, as evidence of its real growth or decadence.

If the pupil merely learns the fact, for instance, that the Romans obtained much of their gold from Spain, France, and Britain, and he does not learn that the British rocks still yield gold, like the sands of the Rhine, he fails to realize the enormous improvement which has come about in the material condition and wealth of the European peoples, since it is no longer remunerative, under ordinary circumstances, to engage in gold mining in Western Europe. This may be in part due to exhaustion of the richer deposits and lodes, but the decline of the industry also measures the value of labour as an element in commercial geography, which changes with time.

As the density of population increases beyond a certain limit, the value of labour diminishes, as is manifest in part of India and China; but, on the other hand, with increase of population, the raw materials are obtained in greater quantity from the earth, for there is more competition to bring to the best markets. Thus, Cornwall was for a long time an important source of copper, but the supplies of copper from America and Spain have been for some time so large that it is no longer remunerative to work the English veins and deposits of copper, so that the mines, in our time, have come to be regarded as practically worked out, just as was the case

with the sources of the Roman gold. And, in the same way, silver in some of the German mines is worked in an intermittent way, which depends upon the price of silver in the market, though that price has steadily diminished since the discovery of America, when it is stated to have been one-half the value of gold, while, at the present time, it is almost one-sixth.

This fluctuating commercial value for metals and other produce of the earth which is obtained from the rocks, applies equally to the animal and vegetable produce reared by man. And hence the student who engages in the study of commercial geography, realizes that the areas in which the raw materials of commerce are produced, are not identical with those in which they exist; and that their production is entirely dependent upon the facility with which man can bring the yield of any region into the world's markets.

But the commercial demand for some ores of metals is changed with improved processes of manufacture. Thus the iron ores of the Wealden district of Kent and Sussex, which were smelted with charcoal, ceased to be profitably worked when the clay iron-stone which is associated with the coal-bearing rocks in many parts of Britain, came to be smelted with the aid of coal and gas. And in the same way the supremacy of Britain as an iron-producing country has been seriously affected by the modern method of making steel, which was originated by Bessemer; because the clay iron-stone was no longer suitable for the improved process; and it has become necessary to use the iron ores known as hæmatite. This has affected the geographical distribution of iron-works by making it more economical to manufacture steel in South Wales, for example, where the ports are conveniently situated for distributing the ore obtained from Spain to various local-