

The work of necessity soon passed into one of utility. The slaughtered beasts were trophies of conquest, and furnished the material of food and clothing. The fruits of the earth ceased to be man's sole dependence. The dense forest and sea yielded to his control; and the conquering darts added to his security and comforts.

The work of utility became one of pleasure. Man was not content to kill in order to protect his property and meet his wants. He killed the beasts of the field in the joy of slaughter. The hunts of semi-barbarous monarchs are too well-known. Remnants of this state of things remain in the bull-fights of Spain and the field-sports of England.

Another change passed upon the chase, and looked it with the wealth of individuals and nations. It grew into a form of merchandise.—Companies have honored it. Legislation has honored it. In our own country the chase has been a high way to wealth. Princely fortunes have been made in the wilderness. The fur-trade, in particular, has risen into notice, and is among the most daring and profitable branches of mercantile life.

Fishing has even a greater interest for us than hunting. The living treasures of the rivers and seas of the world are its legitimate domain. At a very early period, man began to look to the waters for a supply of his wants. The inland seas of Asia were fished. The Indian Ocean has been searched by fleets to supply the tables of the Arabian race. Rome delighted in eels and oysters. France, England and America are vied in treaties, that borrow all their interest from the herring, mackerel and cod fisheries. The capture of the whale is a national pursuit, and, with us, has not only called out a most profitable enterprise, but also trained a class of seamen unequalled in skill and daring.

MINING.

Mining, by which we mean the working of subterranean pits to obtain useful or precious minerals, is one of the most important pursuits of man. The mine is a concealed spring of wealth; and on it, in all ages, has been suspended much of the progress of civilization.

This branch of industry has its origin in the idle search for golden grains and sparkling gems. Central Asia was its first stage. The Persians extended its range. The isles of the sea, Britain and Southern India were visited, and precious metals and precious stones introduced into ancient commerce.

As a science, however, mining was scarcely known in antiquity. It was not till after the discovery of gunpowder, and improvements in mining implements had taken place, that veins could be followed up, and shafts sunk deep in the earth. Hydraulic machines, and, above all, the steam engine, have so armed man with power that, within the last fifty years, he has subdued the subterranean domains, and scattered their treasures among the nations.

MANUFACTURES.

Raw materials are of little use in themselves. Food is to be prepared; clothing is to be made.

The ore is to be roasted, smelted, and pass through various processes before the useful metal can take the form of a machine, or the precious the shape of currency. Flax has to be rotted, bleached, dried, bestded, scutched, heckled, spun and woven, before it is fit for a garment. But these and all such works belong to manufactures.

Manufacture is the application of knowledge and skill in changing existing materials into desirable forms and fabrics, to meet the wants and pleasures of man.

It is a vast branch of enterprise. If we except agriculture, hunting, fishing and mining, it embraces all other departments of industrial science.

Manufacture stretches back into a distant past. Records of its doings have survived the flood. The wheel and loom, and needle were engaged in producing beautiful fabrics as far back as 2000 years before Christ. Travelling merchants crossed Asia with precious wares. Babylon, and Persia, and Tyre, and Egypt had their purple and scarlet, and fine linen. Works of cunning workmen adorned their palaces.

The progress of this branch of industry has been magnificent. It has kept pace with the increase of intelligence and the multiplication of inventions. The useful and tasteful now meet in the same work, and beauty adorns the tools of the machinist. Stores are palaces. Merchants are princes.

The progress of manufacture in the United States has, within a few years, been rapid. Although a new country, and busied with laying the foundation of republican institutions, the feebleness of dependence has long since been shaken off, and the shivering colony of Plymouth has put in a claim for manufacturing skill, which the world is forced to respect. Turkey and Russia are ennobled by American genius.

What the United States is yet to be in this department of labor can only be surmised. The natural resources of the country are rich and promising. Cotton fields lie beneath the southern sun; coal fields and non-stores enrich the north. Raw materials are abundant; and a noble system of common schools is supplying that intelligence which will enable every man who is so inclined, to convert them into manufacturing wares. But a sound national policy can alone secure these results.

And from whence is it to come? From the people. And how are the people to produce it? It must be the product of their general intelligence. The knowledge of the industrial sciences must be diffused abroad in society, till every man feels the importance of these departments of enterprise, and is ready to protect and honor a man who is engaged in them. The people must become conversant with agriculture, hunting and fishing, manufactures and highways by land and sea. These are the industrial sciences, the strength and glory of the nation.

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Light flies at the rate of 200,000 miles in a second of time.